1. Introduction

This study investigates the acquisition of English reflexive binding by Korean speakers and focuses on how syntactic knowledge of reflexive binding interacts with pragmatic knowledge. A number of studies on interpretation of anaphora (Zribi-Hertz 1989; Reinhart & Reuland 1991; Pollard & Sag 1992; Pollard & Xue 2001) have pointed out serious problems for any purely syntactic account along the lines of work in Chomskyan generative grammar and have proposed that interpretation of anaphora is determined not only by syntactic constraints, but also by pragmatic constraints. Furthermore, Huang (1994) proposed a Neo-Gricean pragmatic theory of anaphora in which determining referents of anaphora is pragmatically constrained. He argued that in some languages, such as Chinese and Korean, pragmatics played a central role and thus, binding of reflexives might be primarily subject to principles of language use, while in English, syntactic constraints, such as c-command and locality, were fundamental factors in reflexive binding.

However, very few studies, such as Thomas (1989) and Demirci (2000, 2001), have explored how pragmatic factors affect the interpretation of reflexives in second language acquisition (SLA). This study attempts to expand this line of research and to find out whether pragmatic factors such as context influence the selection of antecedents for reflexives by employing two interpretation tasks which are contrasted in terms of the presence or absence of context. Since English and Korean differ in that English reflexives allow only local binding, while Korean reflexives allow both local and non-local binding, it is assumed that native speakers of Korean rely more than native speakers of English on pragmatic factors that help in the choice of an antecedent. Therefore, pragmatic factors might affect Korean L2 learners in their interpretation of English reflexives.

2. Previous L2 Studies on Pragmatic Roles in Reflexive Binding

Despite the fact that various pragmatic analyses of anaphora have been proposed in the literature, few studies have considered the role of pragmatic factors in the acquisition of L2 reflexives. Among them, Demirci (2000, 2001) argued that pragmatic knowledge plays an important role in L2 learners’ interpretation of reflexives, and interferes with learners’ acquisition of locality conditions in English reflexive binding. Adopting Huang’s pragmatic theory of anaphora, in which the interpretation of a reflexive is subject to the I(informativeness)-principle, a pragmatic strategy which finds an antecedent for the reflexive that gives the most informative, stereotypical interpretation in keeping with our knowledge about the world, Demirci studied the acquisition of English reflexive by Turkish learners.

Based on the theory, in the following example, the co-reference between ziji ‘herself’ and local subject nüer ‘daughter’ is a plausible interpretation, but the interpretation is cancelled since it is not the most pragmatically plausible, considering our knowledge of the world. That is, our stereotypical expectations that everyone looks after herself or himself and that younger people look after older people expect that the person who the daughter is not willing to look after is not the daughter herself, but the grandma. Therefore, the I-principle which is essentially a principle of ‘inference to the best interpretation’ will promote an interpretation that ziji is by preference referentially dependent on the matrix subject, Yang Danian ‘grandma’.

Yang Danian, dànxīn nüèr bù kěn cíhòu zìji
Yang grandma worry daughter not willing look after self
‘Grandma Yang is worried that her daughter is not willing to look after herself.’
at five proficiency levels. Unlike English reflexives, Turkish reflexives allow both local and non-local binding. Moreover, unlike other long-distance (LD) reflexives, such as the Chinese reflexive *ziji*, Turkish reflexives can be bound by both subject and non-subject antecedents. Therefore, Demirci argued that Turkish native speakers need to rely on inference, context, and world knowledge in order to choose between several possible antecedents.

For his study, Demirci employed a method that contrasted pragmatically neutral and biased (in favor of a local NP and of a non-local NP) finite and non-finite biclausal sentences. Some examples of the sentences are shown in (1)-(2).

(1) a. Ayse\textsubscript{1} remembers that Nil\textsubscript{2} introduced herself at the meeting. (Neutral finite)
   i) herself = Ayse \quad YES \quad NO
   ii) herself = Nil \quad YES \quad NO

   b. The little boy\textsubscript{1} was angry that his father\textsubscript{2} always hit himself. (NP1 biased finite)
   c. Ali\textsubscript{1} heard that the famous actor\textsubscript{2} talked about himself on TV. (NP2 biased finite)

(2) a. Nergis\textsubscript{1} asked Suzan\textsubscript{2} to introduce herself to the class. (Neutral non-finite)
   b. The president\textsubscript{1} ordered a bodyguard\textsubscript{2} to protect himself carefully during the speech. (NP1 biased non-finite)
   c. Leman\textsubscript{1} asked Belgin\textsubscript{2} to describe herself on the phone. (NP2 biased non-finite)

In the study, the Turkish learners tended to choose local binding in the pragmatically neutral sentences, while they chose a non-local NP as an antecedent in the pragmatically biased sentences in favor of a non-local NP (e.g., in the case of the advanced level, 81.9% for biclausal non-finite and 87.62% for biclausal finite) and chose a local NP in the pragmatically biased sentences in favor of a local NP (e.g., in the case of the advanced level, 84.76% for biclausal non-finite and 88.57% for biclausal finite). The results showed that the L2 learners, regardless of their proficiency levels, did not behave like the native speakers of English or like the Turkish control group. Demirci proposed that the L2 learners transferred pragmatic principles from L1 to L2.

Thomas (1989) arrived at a different conclusion. She examined the interpretation of English reflexives by native speakers of 20 different languages, including two large subgroups, Chinese and Spanish. Although Thomas focused on the issue of the resetting of parameters and of L1 transfer within the framework of Manzini and Wexler (1987), she also looked at the pragmatic influences on the interpretation of reflexives. She used stimuli similar to Demirci, but included neither biclausal sentences which pragmatically favor a local NP nor monoclausal sentences which pragmatically favor subjects as antecedents. She employed three multiple choices: 1) NP1, 2) NP2, and 3) either NP1 or NP2 instead of giving choices like (1a) above.

The results of Thomas (1989) showed that although the pragmatic stimuli affected the L2 learners as well as the native English speakers in the selection of non-subject antecedents for monoclausal sentences, the L2 learners, unlike native speakers, frequently permitted non-local binding in bi-clausal sentences, whether or not NP was pragmatically favored. 65.49% of the L2 learners selected exclusively the local NP in the pragmatically neutral biclausal sentences, while 48.60% of the L2 learners selected the local NP in the pragmatically NP1 favored biclausal sentences. Therefore, the pragmatic stimuli reduced the rate of local binding by only about 17% in the L2 learner group. According to Thomas, this indicates that pragmatic bias failed to induce the L2 learners to allow LD binding, suggesting no important role of pragmatics in L2 learners’ interpretation of reflexives. However, considering the possibility of the transfer of pragmatic principles from L1, as Demirci (2000) proposed, the results of Thomas’s study may not be comparable to the results in Demirci (2000) since the L2 learner group in Thomas (1989) consisted of native speakers of 20 different languages.

In sum, previous studies have reached opposite conclusions about pragmatic influences on the acquisition of L2 English reflexives and thus, further research is needed to investigate whether pragmatics plays an important role in the acquisition of L2 reflexives.
3. The Properties of the Korean Reflexive ‘casin’

This section briefly examines the syntactic and pragmatic properties of the Korean reflexive *casin*. Unlike English reflexives which are complex morphemes with features of person, number, and gender, the Korean reflexive *casin* is morphologically simple and has the following properties.

i) *Casin* allows both local and non-local binding which causes an ambiguity:

\[(3) \text{Mary}_i-ka \text{ Susan}_j-\text{ul wenmangha-n-ta-ko sayngkakha-n-ta.} \]

M-NOM S-NOM self-ACC blame-PRES-DC-COMP think-PRES-DC

‘Mary, thinks that Susan, blames herself.\[i/j\].’

ii) *Casin* does not require an antecedent within the sentence, but may be discourse bound:

\[(4) \text{A: Ney-ka Mina-ka swukcey ha-nun ket-ul towa-ss-ni?} \]

You-NOM M-NOM homework do-REL thing-ACC help-PAST-Q

‘Did you help Mina to do homework?’

\[(5) \text{B: Ani, casin-i honcase hay-ss-ten-tey.} \]

No, self-NOM alone do-PAST-RETROSPECTIVE-DC

‘No, SELF did it alone.’

iii) *Casin* may be bound by an NP which does not c-command it:

\[(6) \text{Casin}_i-uy ai-ka tolao-l ke-la-nun sosik-i Tom-ul kippu-key ha-yess-ta.} \]

self-GEN child-NOM come back-CONJECTURE-DC-REL news-NOM T-ACC happy-CAUS do-PAST-DC

‘The news of SELF’s child coming back made Tom, happy.’

iv) *Casin* usually takes a subject NP as its antecedent, as show in (6):%

\[(7) \text{Ann}_i-\text{i Sue}_j-\text{eykey casin}_i/*j-\text{ey tayhan phyenci-lul ponay-ss-ta.} \]

A-NOM S-DAT self-about letter-ACC send-PAST-DC

‘Ann, sent a Sue a letter about herself.\[i/*j\].’

v) The plural form for *casin*, *casin-tul*, may have split antecedents:

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2 Korean reflexives are divided into morphologically simple forms and complex ones. The former is represented in two lexical items: *caki* and *casin*. *Caki* is restricted to 3rd person DPs, unlike *casin* which can refer to the 1st and 2nd person as well as the 3rd person. The latter, in turn, can be divided into two groups: ‘*caki + casin*’ and ‘Pronoun/Noun + *casin*’. The complex reflexives are less often used than the monomorphemic reflexives *caki* and *casin*. In particular, the complex reflexive ‘Pronoun/Noun + *casin*’, such as *kucasin* ‘himself’ and *kunyecasin* ‘herself’, sounds foreign to the majority of Koreans and is hardly used in discourse. As pointed out in Lee (2001:384), for Korean, it is known that the ‘Pronoun/Noun + *casin*’ form was introduced into the language in the late 1930s by some novelists who were influenced by Western literature. This study employs only the reflexive *casin*.

3 One reviewer points out that *casin* can take non-subject antecedents in some cases as in (i) below.

\[(8) \text{Ann}_i-\text{i Sue}_j-\text{uy pang-ulo tolye ponay-ss-ta.} \]

A-NOM S-ACC self-GEN room-LOC have-return send-PAST-DC

‘Ann, sent back Sue, to her own (self\[i/j\]’s) room.’

I agree with the judgment on the sentence. However, it is true that Korean reflexives are natural with subject antecedents and tend to resist non-subject antecedents. As will be discussed in section 5.3.1, for the Korean monoclausal sentences which were employed in the tasks of this study, any non-subject binding is considered to be grammatically incorrect.
vi) Casin can occur as the subject of an embedded clause, as shown in (7).

In general, the properties of the Korean reflexive casin are similar to those of LD reflexives, such as the Chinese reflexive ziji. In particular, the properties (i) - (iii) suggest that the role of pragmatics might be an important factor in the selection of antecedents for reflexives in Korean, just as in Chinese and Turkish. In other words, Korean speakers need to rely on pragmatic information such as context in order to choose the appropriate antecedent for a reflexive.

4. Research Questions and Hypotheses

This study investigates the roles of pragmatics and syntax in reflexive interpretation and attempts to explain how syntactic knowledge of reflexive binding interacts with pragmatic knowledge. The research questions addressed in this study are as follows:

1) Do pragmatic factors, such as context, influence the selection of antecedents for reflexives?
2) To what extent do pragmatic factors interact with the syntactic knowledge of reflexive binding?
3) Does the dependency of Korean L1 on pragmatic factors affect the L2 acquisition of English reflexive binding?

With the research questions, the following two hypotheses were tested in this study:

A. Pragmatic factors may boost the likelihood of participants to show a more significant preference for one antecedent over the other only in the case that there is a preference for an antecedent between two possible antecedents. That is, if two antecedents are allowed by syntax, the participants will go with the context.

B. Pragmatics may play a more prominent role in Korean than English, considering the dependency on pragmatic factors of Korean L1 in reflexive interpretation. Hence, unlike English controls, the native speakers of Korean may be misled to choose grammatically unacceptable, but pragmatically favorable antecedents.

5. The experiment

5.1. Participants

The participants comprised an experimental group of 30 advanced Korean learners of English and two control groups: 25 native speakers of Korean and 25 native speakers of English. 29 of the participants in the experimental group were full-time students and one was a staff member at the University of Iowa (UI). The ages of the experimental group ranged from 23 to 37 (mean age of 30) and their years of residence in the U.S.A. ranged from 9 months to 9 years (mean length of 4.1 years). They began to learn English at the age of 12 or 13 in Korea and their proficiency levels were considered to be advanced; 17 participants had TOEFL scores over 600 and 13 participants had TOEFL scores ranging from 550 to 590, but passed the Speak Test at the UI.

The choice of an advanced level of English proficiency was made under two assumptions. First, if advanced Korean learners of English have acquired English reflexive binding, they will show similar results as native speakers of English in a task which employs pragmatically neutral sentences. Consequently, it is feasible to test whether the L2 learners are affected by pragmatic stimuli in the same way as the English controls. Second, in the case that less advanced Korean learners of English who have not acquired English reflexive binding are guided by L1 transfer, it may hamper the analysis of pragmatic influence on the interpretation of English reflexives.
The native speakers of English were undergraduate students in various departments at the UI and none of them were bilingual. 17 participants in the Korean control group lived in Korea and 8 lived in the U.S.A at the time of the testing.

5.2. Tasks and procedures

The experiment of this study was composed of two interpretation tasks: a multiple choice questionnaire requiring the participants to identify the antecedent of a reflexive pronoun. Task 1 was designed to test whether the Korean learners had acquired English reflexive binding. The task employed pragmatically neutral sentences with no context so that the participants’ selection of antecedents for English reflexives would be guided by their knowledge of syntactic constraints. There were three types of sentences given 4 choices: 1) NP1, 2) NP2, 3) either NP1 or NP2, and 4) NP3 (someone else), as shown in (8). The task included 12 target tokens and 8 fillers.

(8) a. Bill, sent John, a letter about himself. (Monoclausal sentence)
   a. Bill   b. John   c. either Bill or John   d. someone else
b. Dave, knew that Tom, criticized himself. (Finite biclausal sentence)
c. Katie, wants Julia, to trust herself. (Non-finite biclausal sentence)

Task 2 employed the same types of sentences and multiple choices as Task 1. However, contrary to Task 1, Task 2 included contexts which strongly favored a specific antecedent of the reflexive in the subsequent sentence. The contexts were written stories, 2 to 4 sentences long. The sentence types and some examples of stories are shown in (9).

(9) a. Monoclausal sentences; context suggests binding to the subject.
   John was looking for someone to work in his company, so he put an advertisement in the newspaper. Bill sent John a letter about his experience and qualifications.
   Bill, sent John a letter about himself.
   b. Monoclausal sentences; context suggests binding to the object.
   Mary and Ann are coworkers. One day, Mary heard some gossip about Ann. Mary was sure that Ann didn’t know about it, but couldn’t tell her in person. So, Mary wrote Ann a letter about the gossip.
   Mary sent Ann, a letter about herself.
   c. Finite biclausal sentences; context suggests binding to the LD antecedent.
   Tom didn’t like his officemate, Dave. One day, when Tom was talking to his friend over the phone, Dave entered the office. However, Tom wasn’t aware of it and started criticizing Dave.
   *Dave, knew that Tom criticized himself.
   d. Finite biclausal sentences; context suggests binding to the local antecedent.
   Tim finished his project and showed it to Rob. Rob told Tim that it was very good. However, Tim said that he simply was not smart enough to do a better job.
   Rob knew that Tim, criticized himself.

4 A number of studies (i.e., Thomas 1993; Lakshmanan & Teranishi 1994; White et al. 1997) have pointed out methodological problems of some tasks in investigating L2 learners’ knowledge of reflexive binding. They suggest that the methodologies used in the tasks may provide information about subjects’ preferred interpretations rather than their grammatical knowledge. The first multiple choice task used in this study could cause similar problems. However, this is not problematic because the aim of this study is to explore whether pragmatics plays a role in the interpretation of reflexives. That is, Task 1 was designed to be compared with Task 2 which included contexts in order to examine whether given contexts affect the participants in the selection of possible antecedents, as will be discussed below.

5 The fourth choice would show if any speakers are treating the reflexive as a pronoun and it would also show if Korean speakers can use casin as a discourse-bound reflexive.
e. Non-finite biclausal sentence; context suggests binding to the LD antecedent.

Julia never confides in anyone. However, Katie wants be a good friend to Julia. But, that will never happen if Julia can’t confide in Katie.

*Katie, wants Julia to trust herself.

f. Non-finite biclausal sentence; context suggests binding to the local subject of the infinitive.

Ann is afraid to ride a unicycle, but Sarah thinks that anyone could do it if they just have some self-confidence. Ann has to believe that she is capable of not hurting herself.

Sarah wants Ann, to trust herself.

The purpose of Task 2 was to test whether pragmatic factors, such as given contexts, affected the participants in determining the antecedent of reflexives and thus, exactly the same sentences used in Task 1 were also used in Task 2; e.g., compare (8a) with (9a). The experimental sentences compared in the two different contexts were basically the same sentences, only differing in that they employed a different proper noun for the possible antecedent of the reflexive. There were 24 target tokens (4 tokens for each sentence type) and 10 fillers in Task 2. As shown above, since the contexts provided a specific antecedent of the reflexive in the subsequent sentence and rejected the other possible antecedents, the participants faced sentences in which certain antecedents for reflexives were grammatically unacceptable, but contextually favored. Therefore, their responses to these sentences arguably show how contextual information interacts with their syntactic knowledge of reflexive binding.

The second task was conducted one or two weeks after the participants took the first one. The Korean controls took a Korean version of the same test in which the English proper nouns were replaced with Korean ones to make the sentences more natural.

5.3. Results

5.3.1. Group Results

For the group results, the number of responses provided by the participants was calculated in percentages for each group and for each sentence type. In both tasks, since English reflexives, unlike the Korean reflexive casin, allow either a subject or an object antecedent, all the choices, except NP3, were considered to be grammatically legitimate for English monoclausal sentences, whereas only the response of ‘NP1’ which represented an exclusive subject antecedent was grammatically legitimate for the Korean monoclausal sentences. Similarly, since English reflexives, in contrast to the Korean reflexive, require local binding, only the ‘NP2’ response was a grammatically legitimate answer for English biclausal sentences, while all the responses, except NP3, were considered to be grammatically correct for the Korean sentences. Also, the choice of NP2 and of NP1/2 for monoclausal sentences were considered to be non-subject binding and the choice of NP1 and of NP1/2 for biclausal sentences LD binding. The following table presents the results of Task 1.

Table 1. Percentage of responses for all groups in Task 1

<table>
<thead>
<tr>
<th>Sent. Type</th>
<th>Monoclausal</th>
<th>Biclausal Finite</th>
<th>Biclausal Non-finite</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NP1  NP2  NP1/2  NP3</td>
<td>NP1  NP2  NP1/2  NP3</td>
<td>NP1  NP2  NP1/2  NP3</td>
</tr>
<tr>
<td>Korean</td>
<td>89    6   5      0</td>
<td>56   14  28      2</td>
<td>52   23  23      2</td>
</tr>
<tr>
<td>English</td>
<td>53    35  12     0</td>
<td>2    96  2       0</td>
<td>5    89  6       0</td>
</tr>
<tr>
<td>L2</td>
<td>57.5  25  17.5   0</td>
<td>3.3  88.4 8.3    0</td>
<td>12.5 75 12.5     0</td>
</tr>
</tbody>
</table>

In the overall responses of subject binding for monoclausal sentences and of local binding for biclausal sentences, there was no significant difference between the English control group and the L2 learners \( F(1, 53) = 1.190, p < 0.280 \), while there were significant differences between the Korean control group and the L2 group \( F(1, 53) = 31.598, p < 0.0001 \). With regard to monoclausal sentences, the majority (89%) of the Korean control group selected exclusive subject antecedents (NP1) and rejected non-subject antecedents (the choice of ‘NP2’ and of ‘NP1/2’), showing subject orientation of LD reflexives. In contrast to the Korean controls, the English controls and the L2 learners selected
non-subject antecedents more frequently: a total of 47% for the English controls and 42.5% for the L2 learners. Only a small number of participants in the English control and the L2 group selected the choice of ‘NP1/2’. This result supports a number of studies of L2 acquisition of English reflexives which have reported that L2 learners, as well as native speakers of English, often fail to detect that an object can be the possible antecedent in the monoclausal sentences (e.g., Finer & Broselow 1986; Hirakawa 1990; White et al. 1997).

In the case of biclausal sentences, the Korean control group accepted either a local or a non-local antecedent in the preference for non-local binding. While 56% and 52% of the Korean control group selected exclusive LD binding (NP1) for finite and non-finite biclausal sentences, respectively, only 14% and 23% of the Korean controls selected exclusive local binding (NP2) for the sentences. On the other hand, the majority of the English control group chose local binding for the sentences: 96% for finite and 89% for non-finite sentences. The L2 learners showed results similar to the English control group; 88.4% and 75%, respectively for the sentence types. There were no significant differences between the groups ($F (1, 53) = 1.846, p < 0.180$ for biclausal finite sentences; $F (1, 53) = 3.325, p < 0.074$ for biclausal non-finite sentences). The L2 learners’ greater tendency toward LD binding in non-finite clauses compared to finite clauses has been found in a number of studies (e.g., Finer & Broselow 1986; Hirakawa 1990).

In sum, no significant L1 transfer was found and the overall performance of the L2 group was clearly similar to that of the English control group, although the L2 group was less successful in accepting local binding for biclausal sentences (particularly, non-finite). Therefore, it is assumed that the L2 learners have acquired the English reflexive binding.

However, the results of Task 2 given in Table 2 are quite different from those of Task 1.

### Table 2. Percentage of responses for all groups in Task 2

<table>
<thead>
<tr>
<th>Sentence Type</th>
<th>Context favor</th>
<th>Response</th>
<th>Korean</th>
<th>English</th>
<th>L2 learners</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mono-clausal Sentences</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subject</td>
<td>NP1</td>
<td>97</td>
<td>83</td>
<td>85</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NP2</td>
<td>2</td>
<td>14</td>
<td>7.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NP1/2</td>
<td>1</td>
<td>3</td>
<td>7.5</td>
<td></td>
</tr>
<tr>
<td>Object</td>
<td>NP1</td>
<td>32</td>
<td>19</td>
<td>17.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NP2</td>
<td>63</td>
<td>78</td>
<td>77.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NP1/2</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td><strong>Biclausal Finite</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD Antecedent</td>
<td>NP1</td>
<td>89</td>
<td>59</td>
<td>83.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NP2</td>
<td>3</td>
<td>36</td>
<td>12.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NP1/2</td>
<td>8</td>
<td>5</td>
<td>4.2</td>
<td></td>
</tr>
<tr>
<td>Local Antecedent</td>
<td>NP1</td>
<td>25</td>
<td>6</td>
<td>5.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NP2</td>
<td>66</td>
<td>94</td>
<td>93.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NP1/2</td>
<td>9</td>
<td>0</td>
<td>0.8</td>
<td></td>
</tr>
<tr>
<td><strong>Biclausal Non-Finite</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD Antecedent</td>
<td>NP1</td>
<td>91</td>
<td>56</td>
<td>79.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NP2</td>
<td>3</td>
<td>39</td>
<td>15.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NP1/2</td>
<td>6</td>
<td>5</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Local Antecedent</td>
<td>NP1</td>
<td>21</td>
<td>2</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NP2</td>
<td>73</td>
<td>98</td>
<td>97.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NP1/2</td>
<td>6</td>
<td>0</td>
<td>2.5</td>
<td></td>
</tr>
</tbody>
</table>

In the case of the L2 group, less than 16% of the participants were correct in the selection of a local antecedent for the biclausal sentences with a context suggesting a non-local antecedent. Compared to the results of Task 1, this clearly shows that the learners’ interpretation of English reflexives was affected by the given context, supporting what Demirci (2000) argued.

Surprisingly, however, the majority of the English control group also failed to resist non-local binding, unlike the English control groups in Demirci (2000)’s and Thomas (1989)’s studies. Just

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6 Table 2 does not include ‘NP3 (someone else)’ choice since no one selected the choice in the task.
under 40% of the English controls were correct in choosing a local antecedent (NP2) for the biclausal sentences when the contexts of the sentence types favored a non-local antecedent (NP1). This suggests that the given contexts in the task induced the native speakers as well as the L2 learners to choose a grammatically incorrect, but contextually favored antecedent. Consequently, Hypothesis A was rejected.

The L2 group showed a performance significantly distinct from the English controls in determining the antecedents of reflexives in biclausal sentences. That is, unlike the results of Task 1 showing that the overall performance of the L2 group was clearly similar to that of the English controls, the results of Task 2 show that the L2 group was significantly less accurate than the English control group in choosing local binding for the sentence type \( F(1, 53) = 8.884, p < 0.004 \). These results support Hypothesis B.

Similar pragmatic influences operated for the Korean control group. Only 32% of the Korean native speakers chose a subject antecedent (NP1) which was grammatically legitimate for the monoclausal sentences with context favoring object antecedents.

To summarize, the results of Task 2 demonstrate that the majority of the participants in all groups selected the antecedents for reflexives based on what the given contexts favored, not based on their grammatical knowledge. The highlighted rates in Table 2 show the effect of context in overriding the pattern found in Task 1 with no context. In fact, there were significant differences between the two tasks in terms of the selection of the correct antecedent for reflexives. Compared with the results of Task1, all groups showed a greater proportion of responses for LD binding in Task 2 when a context favored LD binding. In the case of the English controls, there were significant differences across tasks. In Task 1, only 4% and 11% of the English controls chose LD binding (the choice of NP1 and of NP1/2) for biclausal finite and non-finite, respectively, whereas 64% and 61% of them accepted LD binding for the sentence types in which the contexts favored non-local antecedents in Task 2. This suggests that the English controls were influenced by context to the extent that they overcame their grammatical knowledge.

Similarly, the L2 learners were affected by the pragmatic factors. However, the percentage of the L2 learners’ response for LD binding increased much more than the percentage for the English control group in Task 2. A total of 87.5% and 84.2% of the L2 group accepted LD binding for the biclausal finite and non-finite sentences, respectively. Consequently, the percentages of the L2 group’s response for LD binding were close to those of the Korean control group’s response for LD binding; 97% for both sentence types. Indeed, in the contexts where the local subject was the grammatically legitimate, but contextually not favored antecedent, there were significant differences between the L2 group and the English control group \( F(1, 53) = 7.633, p < 0.008 \) for biclausal finite sentences; \( F(1, 53) = 7.466, p < 0.009 \) for biclausal non-finite sentences), while there were no significant differences between the L2 and the Korean control groups \( F(1, 53) = 0.459, p < 0.501 \) for biclausal finite sentences; \( F(1, 53) = 2.456, p < 0.123 \) for biclausal non-finite sentences).\(^8\) Recall that in Task 1, the advanced Korean

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7 In Demirci’ study, the English control group chose a local antecedent (NP2) for pragmatically NP1 biased finite and non-finite biclausal sentences 76% and 72% of the time, respectively. Also, Thomas (1989) reported that about 91% of the English control group chose local binding for pragmatically NP1 favored biclausal sentences.

8 One reviewer points out that if the Korean control group is tested only with casin, as it is the case in this study, the comparison between the performance of the Korean control group on casin and the L2 learners’ performance on the English pronoun-self could be a comparison of very different anaphors in two languages since the Korean reflexive casin differs from the English reflexive himself in many ways, including its possibility to be bound outside its local domain. The reviewer suggests that testing a Korean control group with a more English-like reflexive caki-casin instead of casin could be more appropriate than looking at casin. Given that in the literature (e.g., Pica 1987; Cole et al. 1990; Huang & Tang 1991) it is argued that differences in long-distance and locally-bound reflexives are derived from the morphological properties of reflexives, it is assumed that morphologically simple reflexives, such as casin in Korean, can take a long-distant antecedent, while morphologically complex reflexives, such as himself in English and caki-casin in Korean, must take a local antecedent. Therefore, it might be the case that caki-casin is a more English-like reflexive than casin is, as the reviewer claims. However, the correlation between locality and the morphological complexity of reflexives has been questioned by a number of researchers (e.g., Huang 1996; Zribi-Hertz 1996; Lee 1997 among others). In fact, caki-casin can also show similar properties to casin, as shown below.
learners of English performed similarly to the English control group by choosing local binding with 88.4% and 75% accuracy on finite and non-finite biclausal sentences, compared to the English control group’s 96% and 89% accuracy. These results show that the L2 learners were more affected by the given contexts than the English control group was.

5.3.2 Individual Results

This study examines individual results to see whether the group results reflect properties of individual grammars. Each participant’s response was evaluated separately with regard to the sentence types across the tasks. Considering the difficulty of the selection of an antecedent in Task 2 since the participants had to resist pragmatic pressure (that is, the effect of context favoring LD binding or non-subject binding) in order to select grammatically appropriate antecedents for reflexives, the 75% criterion (3/4 correct responses) was used for both tasks. Tables 3 and 4 illustrate the individual results. The number of participants who met the criterion is also listed in each table.

Table 3. Number of individuals with 75% accuracy by sentence type in Task 1

<table>
<thead>
<tr>
<th>Sentence Type</th>
<th>Korean</th>
<th>English</th>
<th>L2 learners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mono-clausal</td>
<td>24/25 (96%)</td>
<td>25/25 (100%)</td>
<td>30/30 (100%)</td>
</tr>
<tr>
<td>Biclausal Finite</td>
<td>25/25 (100%)</td>
<td>25/25 (100%)</td>
<td>27/30 (90%)</td>
</tr>
<tr>
<td>Biclausal Non-finite</td>
<td>25/25 (100%)</td>
<td>21/25 (84%)</td>
<td>22/30 (73.3%)</td>
</tr>
</tbody>
</table>

As can be seen from Table 3, 27 (90%) and 22 (73.3%) L2 learners out of 30 consistently chose a local antecedent for finite and non-finite biclausal sentences. The overall results which combined the results of finite and non-finite show that 81.65% of L2 learners acquired a native-like grammar for reflexive binding in terms of biclausal sentences in Task 1.

Table 4 shows that the overall individual results of Task 2 are similar to the group results of the same task.

Table 4. Number of individuals with 75% accuracy by sentence type in Task 2

<table>
<thead>
<tr>
<th>Sentence Type</th>
<th>Context Favor</th>
<th>Korean</th>
<th>English</th>
<th>L2 learners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mono-clausal</td>
<td>Subject</td>
<td>25/25 (100%)</td>
<td>25/25 (100%)</td>
<td>30/30 (100%)</td>
</tr>
<tr>
<td></td>
<td>Object</td>
<td>6/25 (24%)</td>
<td>25/25 (100%)</td>
<td>30/30 (100%)</td>
</tr>
<tr>
<td>Biclausal Finite</td>
<td>LD Antecedent</td>
<td>25/25 (100%)</td>
<td>23/25 (92%)</td>
<td>23/30 (76.6%)</td>
</tr>
<tr>
<td></td>
<td>Local Antecedent</td>
<td>25/25 (100%)</td>
<td>6/25 (24%)</td>
<td>3/30 (10%)</td>
</tr>
<tr>
<td>Bicausal Non-finite</td>
<td>LD Antecedent</td>
<td>25/25 (100%)</td>
<td>6/25 (24%)</td>
<td>2/30 (6.6%)</td>
</tr>
<tr>
<td></td>
<td>Local Antecedent</td>
<td>25/25 (100%)</td>
<td>25/25 (100%)</td>
<td>24/30 (80%)</td>
</tr>
</tbody>
</table>

All Korean native speakers who I consulted reported that *caki-casin* as well as *casin* could take either a local antecedent or a long-distant antecedent in the biclausal sentences which were included in the Korean version of the tasks. Therefore, it seems that *caki-casin* might not be so different from *casin*, as the reviewer suggests. However, it might be interesting to see whether a Korean control group would show similar results to this study if the control group is tested with *caki-casin*.
In the case of the Korean control group, only 6 out of 25 participants (24%) accepted binding to a subject for the sentences where contexts favored binding to an object, resisting the pragmatic pressure. With regard to the English control and the L2 learner group, the overall individual results which combined the rates of biclausal finite and non-finite sentences show that both groups were affected by the pragmatic factors, but the effects were more significant in the L2 group than the English control group. Only 6 out of 25 native speakers of English (24%) and 2.5 out of 30 L2 learners (8.3%) rejected non-local binding supported by the contexts.

6. Discussion

The results of this study revealed that when no context was given, as in Task 1, the majority of the control groups as well as the experimental group selected antecedents for reflexives based on syntactic constraints, but when a context was given, as in Task 2, they chose based on pragmatic factors, in violation of syntactic constraints. These results show that pragmatic factors influenced the selection of antecedents for reflexives. However, the Korean L2 learners were more affected by pragmatic factors than the English controls. These results replicate Demirci (2000)’s finding. Demirci adopted Huang (1994)’s pragmatic theory of anaphora, and argued that the I-principle seemed to be operative for Turkish speakers in selecting an actual antecedent among several possible ones both in their L1 and their L2. Likewise, the dependence of Korean L1 on pragmatic factors in order to choose the appropriate antecedent for a reflexive seems to affect the interpretation of English reflexives. That is, when the Korean L2 learners in the present study were given story contexts in Task 2, they seemed to transfer their L1 conditions on reflexive binding to L2 English and to utilize the pragmatic principles to find the most informative interpretation consistent with the context.

Another possible explanation of the results for the Korean L2 learners is that the L2 syntax of the learners was not strong enough to resist the pragmatic influence. Although the learners had demonstrated an advanced level of L2 proficiency and showed native-like interpretation of English reflexives in Task 1, it does not indicate that the nature and extent of their syntactic knowledge was native-like. This explanation may be incorporated into Clahsen and Felser (2006)’s Shallow Structure Hypothesis. According to the hypothesis, the syntactic representations computed by L2 learners during comprehension are shallower and less detailed than those of child and adult native speakers. In other words, L2 learners, unlike native speakers, under-use syntactic information during sentence processing and rely more on lexical-semantic and pragmatic information, and world knowledge rather than on syntax. In line with the hypothesis, it is assumed that the advanced Korean L2 learners of English relied more heavily on pragmatic information and thus, selected LD binding more frequently than the English controls when they were given a context that favored non-local antecedents for reflexives.

The results of this study also show that the majority of the English control group as well as the Korean control group selected antecedents for reflexives based on pragmatic factors, not based on syntactic constraints. The failure of the control groups to select the correct antecedent for reflexives was not predicted by the hypotheses of the present study and has not been reported in the previous studies on SLA. However, the results might not be so surprising, considering that the literature on anaphora has proven that even in languages like English, reflexives may co-refer with a non-local NP at the discourse level, as shown in (10).

(10) a. A picture of myself would be nice on that wall. (Ross 1970)
   b. The picture of himself, on page one of The Times upset John, (Pollard & Xue 2001)
   c. She, told him he should marry a woman like herself, (Stirling & Huddleston 2002)
   d. He, [Zapp] sat down at the desk and opened the drawers. In the top right-hand one was an
      envelope addressed to himself, (Zribi-Hertz 1989)

The examples in (10) clearly show that the distribution of reflexives cannot always be accounted for by syntactic constraints, such as the c-command and the locality constraint. Indeed, a number of studies (e.g. Pollard & Sag 1992; Reinhart & Reuland 1993; Baker 1995) have examined non-syntactic binding by various effects of logophoricity, emphasis, and contrastiveness, and argued that the dependency between the reflexives and the antecedents must be established at discourse level.
Furthermore, Huang (1994:144) suggests that the same pragmatic principles which apply in so-called 'pragmatic' languages may in principle apply in 'non-pragmatic' languages like English. The results of this study in terms of the L1 English speakers’ response to LD binding interpretation might be evidence in support of the pragmatic approaches to English reflexive binding.

A question arises; why did the English controls in the present study, but not in the previous studies, fail in the interpretation of English reflexives? Differences in methodologies might be a factor in the diverging tendency identified between the English control groups in the previous researches and the present study in terms of the participants’ responses to reflexive binding for biclausal sentences. Thomas (1989) and Demirci (2000) both used a methodology which contrasted a pragmatically neutral and a pragmatically favored or biased (in favor of a local NP and of a non-local NP) sentence in the same tests. The pragmatic bias used in the previous studies was derived from stereotypical, real world knowledge, and relevance and was internal to the experimental sentences. Their results showed that the pragmatic bias which affected the L2 learners was not strong enough to affect the syntactic judgment of the English controls on binding of English reflexives with their antecedents in a local domain.

On the contrary, the present study employed two separate tasks which were contrasted in terms of the presence or absence of a context. In the task with story contexts, each story context provided a specific antecedent for the reflexive in the subsequent sentence and rejected the other possible antecedent. Hence, there was an interpretation from the context which was inconsistent with an antecedent defined by syntactic binding. The results of the present study showed that the English controls tended to reject a grammatically legitimate antecedent for a reflexive, when the antecedent was not consistent with the context. Given that a reader or a hearer accepts a certain orientation with respect to what constitutes relevant information, the story contexts employed in the present study might provide the participants specific discourse information and lead the English controls to consider the discourse information to the extent that it could affect their syntactic judgment on English reflexive binding.

With respect to how interpretation of anaphora can be attributed to contextual effects, it is worth noting the results from a few studies which attempted to explain interpretation of anaphora in pragmatic perspectives, such as Ying (2005), Sturt (2003), and Blackwell (2000, 2001). Ying examined Chinese-speaking learners’ interpretation of English reflexive anaphora in VP-ellipsis from a Relevance Theory perspective. In his study, three types of experimental sentences were compared: 1) VP-ellipsis with a null context, as in (11a), 2) the same VP-ellipsis followed by a referential context favoring the “strict” reading interpretation, as in (11b), and 3) the same VP-ellipsis followed by a non-referential context not favoring the “strict” reading interpretation, as in (11c).

(11) a. John defended himself and Bill did too.
    b. John defended himself and Bill did too. Bill was a good friend of John.
    c. John defended himself and Bill did too. Bill went to the restaurant afterwards.

The results from the study showed that the majority of the L2 learners as well as native speakers of English chose the sloppy reading for a reflexive in a null context, while they chose the strict reading in a referential context, and that there was no such preference in a non-referential context. Ying (2005:563) argued that the procedural information encoded by ensuing referential sentences had the effect of reducing the participants’ overall computational efforts and of guiding the participants toward the intended contextual effects, while subsequent irrelevant information distracted the participants’ ability to process the experimental sentences, leading to their lower performance. According to Ying, the results were consistent with the assumptions of Relevance Theory that information presented in the contexts following the experimental sentences carries the presumption of relevance. In a similar vein, the participants in the present study might have paid attention to the contextual information given in Task 2 and tried to interpret the following experimental sentences in an attempt to establish the relevance of the contextual background information. Consequently, this led the participants to choose antecedents for reflexives which were strongly suggested in the contexts, but were not grammatically legitimate in the experimental sentences.

In addition, Sturt (2003)’s study which examined the role of binding theory in on-line sentence processing showed how contextual appropriateness can affect the likelihood of native English speakers
settling on an ungrammatical interpretation. In the study, the participants read short texts that included anaphoric references with reflexives, as follows.

(12) a. Jonathan was pretty worried at the City Hospital. He remembered that the surgeon had pricked himself with a used syringe needle. There should be an investigation soon.
   b. Jennifer was... She remembered that the surgeon had pricked himself with a used syringe... soon.
   c. Jennifer was... She remembered that the surgeon had pricked herself with a used syringe... soon.
   d. Jonathan was... He remembered that the surgeon had pricked herself with a used syringe... soon.

The named character (Jonathan or Jennifer) is a logophoric antecedent which is not a possible antecedent for the reflexive in terms of binding theory, while the second character (the surgeon) is a possible syntactic antecedent. Sturt used a stereotypical gender manipulation for the binding-accessible antecedent (e.g., the surgeon in (12) referred to a male surgeon). The results of the study showed that the participants were significantly more likely to choose the logophoric antecedent when this antecedent matched the gender of the reflexive (24% of the time), compared with when it did not (8% of the time), and this effect was particularly strong when the binding-accessible antecedent did not match the anaphor in stereotypical gender (31% of the time). Therefore, Sturt argued that binding principle A may be momentarily applied during processing, but does not act as an absolute filter on the final interpretation of the sentence. Sturt (2003:139) further proposed a view of the syntax-discourse interface involving a temporally distinct application of syntactic and discourse principles during processing.

Finally, Blackwell (2000, 2001) which examined native speakers’ interpretation of coreference in Spanish utterances, supporting Huang (1994)’s neo-Gricean pragmatic theory of anaphora, proposed that in the process of inferring relations of coreference, listeners often rely more readily on their knowledge of the discourse context and background knowledge and assumptions than on the type of NP expression used anaphorically by the speaker. In short, these studies showed the importance of contextual effects on interpretation of anaphora. Along the lines of the studies mentioned above, it is assumed that the participants in the present study were strongly affected by contextual information in Task 2.

7. Conclusions

Given the results of this study that the majority of participants in each group were successful in the selection of grammatically legitimate antecedents for reflexives in Task 1, while they tended to select antecedents for reflexives which were pragmatically favored from contexts regardless of grammaticality in Task 2, we may conclude that pragmatic factors such as contextual information play an important role in the interpretation of reflexives to the extent that they can even override participants’ syntactic knowledge on reflexive binding. Consequently, these results suggest that the theory of binding should be reconsidered to include pragmatic effects.

However, this study also suggests that the effect of pragmatic factors can vary depending on the dependency of a language on pragmatic factors in the interpretation of reflexives. Although the Korean L2 learners had acquired English reflexive binding, as demonstrated by the results of Task 1, the Korean L2 learners seemed to be more affected by pragmatic factors than the English native speakers because of the dependency of Korean L1 on pragmatic factors in the interpretation of reflexive. In other words, when pragmatic knowledge interacts with syntactic knowledge of reflexive binding, Korean learners are more susceptible than English native speakers to pragmatic knowledge due to transfer of their L1 conditions on reflexive binding to L2 English. Consequently, it suggests that the dependency of Korean L1 on pragmatic factors can affect the L2 acquisition of English reflexive binding.

Further studies need to be extended to evaluate whether English learners of a language which shows dependency on pragmatic factors in the interpretation of reflexives, such as Korean and Turkish, are less affected by pragmatic factors than a control group in the interpretation of reflexives. In addition, the present study may imply that there should be a formal system which describes a language user’s linguistic knowledge with a set of processing strategies stimulating the differential use of the
linguistic knowledge in a specific context. With regard to this issue, further studies need to investigate how we access our linguistic knowledge, and how pragmatic knowledge and syntactic knowledge interact in L1 as well as L2.

Appendix 1: target sentences for Task 1

**Monoclausal sentences**

1. Bill sent John a letter about *himself*.
2. Rachel asked Ann about *herself*.
3. Dave gave John a picture of *himself*.
4. Jean showed Mary *herself* in the mirror.

**Finite biclausal sentences**

1. Maria remembered that Ann introduced *herself* at the party.
2. Fred believed that Mark shot *himself*.
3. Dave knew that Tom criticized *himself*.
4. Mary thinks that Susan blames *herself* for the accident.

**Non-finite biclausal sentences**

1. Rob told Tim not to underestimate *himself*.
2. Jeff asked Bill to protect *himself*.
3. Kyle made Mark shame *himself*.
4. Katie wants Julia to trust *herself*.

Appendix 2: target sentences with a story context for Task 2

**Monoclausal sentences; context suggests binding to the subject**

1. John was looking for someone to work in his company, so he put an advertisement in the newspaper. Bill sent John a letter about his experience and qualifications.
   “Bill sent John a letter about *himself*.”
2. Rachel transferred into a new school and wanted to know what her classmates thought about her. So, she talked to one of her classmates, Ann, and learned that her classmates considered her smart.
   “Rachel asked Ann about *herself*.”
3. Susan had her picture taken. She had it developed, and decided to give a copy of it to Mary as a gift.
   “Susan gave Mary a picture of *herself*.”
4. Jean is afraid that she looks fatter in the mirror than in real life. She decided to get Mary’s opinion on the matter.
   “Jean showed Mary *herself* in the mirror.”

**Monoclausal sentences; context suggests binding to the object**

1. Mary and Ann are coworkers. One day, Mary heard some gossip about Ann. Mary was sure that Ann didn’t know about it, but couldn’t tell her in person. So, Mary wrote Ann a letter about the gossip.
   “Mary sent Ann a letter about *herself*.”
2. Julia transferred into a new school and tried to make a new friend. One of her classmates whose name was Sue seemed to be very kind for her, so she wanted to know more about Sue.
   “Julia asked Sue about *herself*.”
3. John knew that Dave had taken a good picture of him on their last camping trip. He asked Dave to give him the picture so that he could impress his new girlfriend.
   “Dave gave John a picture of *himself*.”
4. Julia had been eating chocolate. She was surprised when everyone laughed at her. Susan pulled her to a mirror, so Julia could see the chocolate on her face.

“Susan showed Julia herself in the mirror.”

**Finite biclausal sentences; context suggests binding to the long-distance antecedent**

1. Last year, Maria went to Ann’s house for a party. She wanted to meet Dave, a really cute boy, but was too shy to go talk to him by herself. Ann helped her by introducing her to Dave.
   “Maria remembered that Ann introduced herself at the party.”

2. Fred and Mark hated each other. One night while Fred was walking in the street, someone with a mask shot Fred in the arm. Fred couldn’t see the person, but he believed that it was Mark.
   “Fred believed that Mark shot himself.”

3. Tom didn’t like his officemate, Dave. One day, when Tom was talking to his friend over the phone, Dave entered the office. However, Tom wasn’t aware of it and started criticizing Dave.
   “Dave knew that Tom criticized himself.”

4. Mary went to a beauty salon with Susan. Susan didn’t want to get a haircut, but Mary insisted that she should, so Susan did so. However, when the attendant showed Susan her haircut, she was upset about it and didn’t want to talk to Mary.
   “Mary thinks that Susan blames herself for her haircut.”

**Finite biclausal sentences; context suggests binding to the local antecedent**

1. Rob asked Susan if she had ever met Julia. Susan thought back to a party from a few weeks ago, and realized that Julia introduced herself at the party.
   “Susan remembered that Julia introduced herself at the party.”

2. Katie used to visit Susan who had no family and friends. On her last visit Katie heard a gun shot from Susan’s room. Susan died instantly.
   “Katie believed that Susan shot herself.”

3. Tim finished his project and showed it to Rob. Rob told Tim that it was very good. However, Tim said that he simply was not smart enough to do a better job.
   “Rob knew that Tim criticized himself.”

4. Ann is really worrying about her sister, Sue, because she became extremely depressed after a car accident that she had. Sue was driving the car and her friend who was in the passenger’s seat was killed.
   “Ann thinks that Sue blames herself for the accident.”

**Non-finite biclausal sentence; context suggests binding to the long-distance antecedent**

1. Rob and Tim are the likely winners of a swimming championship in the state of Iowa. However, Tim thinks that he will win the championship because Rob has never beaten him before.
   “Rob told Tim not to underestimate himself.”

2. Jeff got a threatening letter from someone. He was very scared, so he decided to hire a bodyguard. He interviewed several bodyguards, but he thought that Bill was the best.
   “Jeff asked Bill to protect himself.”

3. Mark was always proud of his son, Kyle, who was smart and honest. Mark was always proud of his son, Kyle, who was smart and honest. However, after Kyle was detected in a fraud, Mark was ashamed of Kyle.
   “Kyle made Mark shame himself.”

4. Julia never confides in anyone. However, Katie wants be a good friend to Julia. But, that will never happen if Julia can’t confide in Katie.
   “Katie wants Julia to trust herself.”
1. Kyle knows that everybody thinks that his friend, John, is very smart. However, John always thinks that he is stupid and not good at his job.
   “Kyle told John not to underestimate himself.”
2. Paul is small and gets teased and hit by bullies at school. Luke thinks that Paul should learn Tae-Kwon-Do, so he can protect himself.
   “Luke asked Paul to protect himself.”
3. Fred was very popular at school and used to hang out with Luke. One day, Fred got drunk and stole money from the church. The next day, when Luke told Fred that he saw Fred stealing the money, Fred blushed with shame.
   “Luke made Fred shame himself.”
4. Ann is afraid to ride a unicycle, but Sarah thinks that anyone could do it if they just have some self-confidence. Ann has to believe that she is capable of not hurting herself.
   “Sarah wants Ann to trust herself.”

References
