A Corpus-Based Analysis of Four Modality Types

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Abstract
The ultimate goal of this article is to provide a frequency analysis of four modality types within the Corpus of Contemporary American English (COCA) and the British National Corpus (BNC) and to reveal how these four types show differences in the accessibility of the speaker or writer. The COCA and the BNC clearly indicate that "it is possible that S" is the most preferred type among the four types in America, whereas "it is likely that S" is the most frequently used type in the U.K. These results lead to the hypothesis that American people prefer using a modality type with the weakest certainty, whereas British people prefer using that with stronger certainty. With respect to the types "it is certain that S" and "it is probable that S", on the other hand, it is important to note that they have a lower functional load than the other types, which leads to the hypothesis that they are currently not preferred by both American people and British people because they are modality types with strong certainty, which American people and British people tend to avoid. A further point to note is that Korean learners of English do not support the hypothesis that native English speakers (American people) prefer using a modality type with the weakest certainty but do entertain the hypothesis that native English speakers (British people) prefer a modality type with stronger certainty to that with the weakest certainty. More specifically, they exhibited a strong preference not towards "it is certain that S", "it is probable that S", and "it is possible that S" but towards "it is likely that S". These results thus provide confirmation that "it is possible that S" is the most accessible type for American people, whereas "it is likely that S" is the most accessible type for British people and Korean learners of English. Additionally, it is worth noting that the fact that the modality types with strong certainty are not preferred by American people, British people, and Korean learners of English may reflect Universal Grammar (Chomsky 2013) and the degree of markedness.

Keywords: Corpus; modality; it is certain that S; it is probable that S; it is likely that S; it is possible that S.

1. Introduction
This article is organized as follows. Section 2 provides background discussion for the remainder of this article. Section 3 shows the use and frequencies of four modality types and characterizes the genre frequencies of these four modality types in the Corpus of Contemporary American English (COCA: 1990-2012). The COCA clearly illustrates the fact that the most preferable type for speakers or writers in America is "it is possible that S" based on its highest frequency (1926 tokens) and highest proportion (56.4%) in five genres. One major point of this article is that the "magazine" and "academic" genres of the four modality types are preferred by American people over other genres and that they are influenced mainly by the use of the four modality types. With respect to the use and frequency of the four modality types in the COCA, on the other hand, a further point to note is that the type "it is possible that S" for the four-year period from 2005 to 2009 is used more frequently and that during the same period, the types "it is certain that S" and "it is probable that S" have a lower functional load than the other types. Section 3 shows that as in the case of the COCA, the "academic" genre in the British National Corpus (BNC) is preferred by British people over other genres and that it is influenced mainly by the use of the four modality types. Also, we make clear that there are small national variations in the use and genre frequency of the four modality types. The crucial evidence for this is based on the observation that the type "it is possible that S" in the COCA shows the highest frequency among the four types, whereas the type "it is likely that S" in the BNC shows the highest frequency. We take this fact as support for the idea that American people prefer "it is possible that S" with the weakest certainty, whereas British people prefer "it is likely that S" with stronger certainty. Section 4 argues, in support of the conception of the accessibility of the speaker or writer, that just as in the case of British people, Korean learners of English also show a strong preference for the type "it is likely that S". This fact thus gives weight to the claim that the type "it is likely that S" is the most accessible type for both British people and Korean learners of English. Section 4 also maintains that the fact that the modality types with strong certainty, such as "it is probable that S" and "it is certain that S", are not preferred by American people, British people, and the Korean learners of English may be attributed to the degree of markedness and

2. Methodology

A specific empirical objective of this article is to provide a detailed frequency analysis of four modality types within the systems of the Corpus of Contemporary American English (COCA) and the British National Corpus (BNC). It is fairly clear that modality is an important semantic category which operates at the sentence level. As pointed out in Saeed (2009), the modal system allows speakers to signal stronger and weaker commitment to the factuality of statements (Saeed 2009). Note, to begin with, that the following sentences, which include an adjective or adverb with modality, are interesting because versions (a-d) move from strong to weak commitment to S:

(1) a. It is certain that S
b. It is probable that S
c. It is likely that S
d. It is possible that S
(Saeed 2009: 138)

(1) induces a modality hierarchy varying from strong certainty to weak certainty, as exemplified below:

(2) Modality Hierarchy:

It is certain that S > It is probable that S > It is likely that S > It is possible that S

The main goal of our research is to provide a frequency analysis of how the four modality types illustrated in (1) and (2) show differences in the accessibility of the speaker or writer. As appropriate tools to achieve this goal, we adopt the Corpus of Contemporary American English and the British National Corpus in this article. The Corpus of Contemporary American English includes about 450 million words and contains spoken American English, popular magazines, and newspapers, and academic texts. The British National Corpus (BNC) contains a 100 million words and includes the samples of written and spoken British English. Three points are worth mentioning for the frequency analysis of the four modality types. First, our discussion within the systems of the Corpus of Contemporary American English and the British National Corpus centers on answering the following main questions: Which type is the most frequently used one in all genres of the four types? Which type is the most preferable one for speakers or writers? What genre(s) can be influenced mainly by the use of a certain modality type? What is the main difference between the frequency of the COCA and that of the BNC? What is the correlation between (2) and the frequency of the COCA and the BNC? We pay special attention to these questions and provide a frequency analysis of the four modality types within the systems of the COCA and the BNC. Second, we examine the COCA to find out the synchronic frequency of the four modality types and provide a detailed discussion of the contemporary use and frequency of these four types. Finally, 20 university students at a private university in South Korea are surveyed based on the following four questions: Which type do you think is the most used one in all genres? Which type do you think is the most undesired one in all genres (if any)? Which is your preference among the four types? Which type is the most undesired one for you among the four types (if any)?

3. Results and Discussion

This section provides a detailed analysis of the use and genre frequency of the four modality types. For this, the Corpus of Contemporary American English and British National Corpus are adopted.

3.1. A Frequency Analysis of the Corpus of Contemporary American English

Table 1 shows the use and frequency of the four modality types in the COCA (1990-2012):

<table>
<thead>
<tr>
<th>Context</th>
<th>Spoken</th>
<th>Fiction</th>
<th>Magazine</th>
<th>Newspaper</th>
<th>Academic</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is certain that S</td>
<td>3</td>
<td>7</td>
<td>21</td>
<td>12</td>
<td>65</td>
<td>108</td>
</tr>
<tr>
<td>It is probable that S</td>
<td>7</td>
<td>3</td>
<td>20</td>
<td>8</td>
<td>131</td>
<td>169</td>
</tr>
<tr>
<td>It is likely that S</td>
<td>49</td>
<td>14</td>
<td>154</td>
<td>69</td>
<td>925</td>
<td>1211</td>
</tr>
<tr>
<td>It is possible that S</td>
<td>135</td>
<td>46</td>
<td>147</td>
<td>109</td>
<td>1489</td>
<td>1926</td>
</tr>
</tbody>
</table>

A major question that must be addressed here is "which type is the most used one in all genres of four types?" The COCA clearly illustrates the fact that the type "it is possible that S" is the most preferred one in all genres of the four modality types except for the "magazine" genre. The overall frequency of the four modality types (Table 1) shows the effect of the following preference hierarchy:
(3) Modality Preference Hierarchy:

It is possible that S > It is likely that S > It is probable that S > It is certain that S.

One major point of the token analysis of the type "it is possible that S" is that among the five genres, the "academic" genre has the highest frequency (1489 tokens) and the highest proportion (77.3%), whereas the "fiction" genre has the lowest frequency (46 tokens) and the lowest proportion (2.38%). Most importantly, the "fiction" and "spoken" genres of the four modality types show lower frequency than the other genres because the strong and weak commitment of the speaker or writer to S in the two genres is assumed to be used infrequently. The results in Table 1 show the relevance of the relevant type and the accessibility of the speaker or writer. That is, in the case of the "spoken" and "fiction" genres, the type "it is possible that S" is the most accessible one for speakers or writers, whereas in the case of the "magazine" genre, the type "it is likely that S" is the most accessible one for writers.

Now a question to be asked here is "which type is the most preferable one for speakers or writers in America?" The most preferable type for speakers or writers in America is the type "it is possible that S" based on its highest frequency (1926 tokens) and the highest proportion (56.4%) among the four modality types. More specifically, in the case of "it is possible that S", the number of tokens for the "spoken" genre is 135 tokens (69.5% of all "spoken" genres) and "it is possible that S" has the highest frequency among all "spoken" genres of four modality types. In addition, the type "it is possible that S" has the highest frequency (46 tokens) and the highest proportion (65.7%) among all "fiction" genres of the four modality types. In this regard, it is reasonable to assume that "it is possible that S" is the most preferable type for speakers or writers in both "spoken" and "fiction" genres. However, the overall frequency (147 tokens) of the "magazine" genre for "it is possible that S" is lower than that (154 tokens) of the "magazine" genre for "it is likely that S". Therefore, the most preferable type for American writers in the "magazine" genre is not the type "it is possible that S" but the type "it is likely that S". Again, the type "it is possible that S" in both "newspaper" and "academic" genres has the highest frequency: 109 tokens for the "newspaper" genre (55% of all newspaper genres) and 1,489 tokens for the "academic" genre (57% of all "academic" genres). It seems thus reasonable to conclude that the most preferable type for American speakers or writers in both "newspaper" and "academic" genres is "it is possible that S".

Now a question that naturally arises here is "which genre(s) can be influenced mainly by the use of a certain modality type?" It must be noted that the four modality types in Table 1 induce the following genre frequency hierarchy:

(4) Genre Frequency Hierarchy:

a. It is certain that S: Academic > Magazine > Newspaper > Fiction > Spoken
b. It is probable that S: Academic > Magazine > Newspaper > Spoken > Fiction
c. It is likely that S: Academic > Magazine > Newspaper > Spoken > Fiction
d. It is possible that S: Academic > Magazine > Spoken > Newspaper > Fiction

Noteworthy is that the "magazine" and "academic" genres of the four modality types are preferred to other genres and that they are influenced mainly by the use of the four modality types. There may be several reasons why the "magazine" and "academic" genres of the four modality types are preferred to others. One such reason may be that there are dozens of globally famous medical magazines about modern men's common diseases such as heart diseases, hypertension and diabetes. Even famous doctors are often on TV and give detailed information about these diseases to audience, and thousands of medical researchers currently publish their academic results. This may be the main reason why the "magazine" and "academic" genres are easily accessible to American speakers or writers.

We are now ready to turn our attention to the synchronic use and frequency of the four modality types in the COCA:

<table>
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<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>It is certain that S</td>
<td>33</td>
<td>29</td>
<td>27</td>
<td>11</td>
<td>8</td>
<td>108</td>
</tr>
<tr>
<td>It is probable that S</td>
<td>58</td>
<td>36</td>
<td>39</td>
<td>23</td>
<td>13</td>
<td>169</td>
</tr>
<tr>
<td>It is likely that S</td>
<td>268</td>
<td>235</td>
<td>281</td>
<td>293</td>
<td>134</td>
<td>1211</td>
</tr>
<tr>
<td>It is possible that S</td>
<td>370</td>
<td>375</td>
<td>462</td>
<td>482</td>
<td>237</td>
<td>1926</td>
</tr>
</tbody>
</table>
The COCA clearly shows that the types "it is possible that S" and "it is likely that S" for the four-year period from 2005 to 2009 are used more frequently. More specifically, the use and frequency of "it is possible that S" and "it is likely that S" increase gradually. They currently have a higher functional load, which suggests that the use of "it is possible that S" and "it is likely that S" is now preferred by American people. One reason why they are preferred by American people may be because they may avoid modality types with strong certainty. On the other hand, during the same period (from 2005 to 2009) the types "it is certain that S" and "it is probable that S" have a lower functional load. In terms of the frequency of "it is certain that S", noteworthy is that for the four-year period from 1990 to 1994, its use is preferred more during the four-year period from 1990 to 1994 than during other periods. It is significant, however, that over time, the type "it is certain that S" comes to have a lower functional load, which indicates that American people come to avoid "it is certain that S" (with the strongest certainty) among the four modality types. Finally, another point is that the use and frequency of "it is probable that S" decrease gradually except for the four-year period from 2000 to 2004. From this, it is clear that "it is probable that S" is not preferred by American people since it is a modality type with strong certainty, which American people tend to avoid. In conclusion, the types "it is certain that S" and "it is probable that S" come to have a lower functional load than the other types. This observation leads to the hypothesis that "it is certain that S" and "it is probable that S" are currently not preferred by American people because they are modality types too strong to be frequently used.

3.2. A Frequency Analysis of the British National Corpus

It should be noted that when people use language in different social and communicative contexts, their language often differs in terms of both grammatical and lexical choice. As pointed out in Biber (1995), people who use the same language in different regions and countries may talk differently. Now attention is paid to the COCA and the BNC to examine the national variation of the four modality types. Table 3 shows the use and genre frequency of the four modality types in the BNC:

<table>
<thead>
<tr>
<th>Context</th>
<th>Spoken</th>
<th>Fiction</th>
<th>Magazine</th>
<th>Newspaper</th>
<th>Non-academic</th>
<th>Academic</th>
<th>Misc</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is certain that S</td>
<td>2</td>
<td>1</td>
<td>7</td>
<td>18</td>
<td>21</td>
<td>19</td>
<td>68</td>
<td></td>
</tr>
<tr>
<td>It is probable that S</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>65</td>
<td>84</td>
<td>52</td>
<td>210</td>
</tr>
<tr>
<td>It is likely that S</td>
<td>7</td>
<td>2</td>
<td>29</td>
<td>41</td>
<td>177</td>
<td>302</td>
<td>203</td>
<td>761</td>
</tr>
<tr>
<td>It is possible that S</td>
<td>6</td>
<td>21</td>
<td>18</td>
<td>25</td>
<td>182</td>
<td>350</td>
<td>151</td>
<td>753</td>
</tr>
</tbody>
</table>

The overall frequency of the four modality types in the BNC is 1,792. One characteristic of token frequency analyses in the BNC is that "it is likely that S" has the highest frequency (761 tokens) and the highest proportion (42.4%). Although the overall frequency of "it is certain that S" is quite low (68 tokens), the most striking difference is found in the "academic" genre. On the other hand, the overall frequency and relative preference of "it is probable that S" is remarkable low (210 tokens accounting for 11.7% of the total use of the four modality types). As demonstrated in Table 3, the overall frequency of "it is possible that S" is high (with 753 tokens) and accounts for 42% of the total use of the four modality types. This raises the question of "which genre(s) can be influenced mainly by the use of a certain modality type?" Again, noteworthy is that the "academic" genre of the four modality types are preferred to other genres and that as in the COCA, it is influenced mainly by the use of the four modality types. Simply put, the results in Table 3 indicate that the "academic" genre shows the highest frequency based on the genre frequency analysis of the four modality types, which suggests that the "academic" genre is the most likely to be used one and is accessible to speakers or writers.

Then what is the main difference between the frequency of the COCA and that of the BNC? Note, to start with, that the four modality types in the COCA and the BNC have the following preference hierarchy:

(5) Modality Preference Hierarchy

1Here the term "functional load" is used to describe the frequency of four modality types in the spirit of King (1967).
COCA: It is possible that S > It is likely that S > It is probable that S > It is certain that S

BNC: It is likely that S > It is possible that S > It is probable that S > It is certain that S

As noted in the COCA and the BNC, these results provide further confirmation that "it is possible that S" is preferable to "it is likely that S" in America and "it is likely that S" is the most preferred one among the four modality types in the U.K. That is, as indicated in S, "it is likely that S" is the most accessible type for speakers or writers in the U.K., and "it is possible that S" is the most accessible one for speakers or writers in America. Hyland (1999) demonstrates that writers are far more likely to use textual forms than personal ones in the corpus. However, this article argues that for the use of four modality types, it is more personal or interpersonal than textual because the use of the four modality types is purely personal or interpersonal for speakers or writers. Then what is the correlation between (2) and the frequency of the COCA and the BNC? The COCA and the BNC clearly show that the type "it is possible that S" has the highest frequency among the four modality types in America, whereas the type "it is likely that S" has the highest frequency in the U.K. With respect to the types "it is certain that S" and "it is probable that S", on the other hand, they have a lower functional load than the other types. This indicates that modality types with strong certainty are not preferred by both American people and British people. However, "it is possible that S" with the weakest certainty is preferred by American people to the other modality types, whereas "it is likely that S" with weak certainty is preferred by British people. More specifically, "it is possible that S" with the weakest certainty is the most preferred type for American people, followed by "it is likely that S" with strong certainty, "it is certain that S" with the strongest certainty, in that order. On the other hand, "it is likely that S" with weak certainty is the most preferred type for British people, followed by "it is possible that S" with the weakest certainty, "it is probable that S" with strong certainty, "it is certain that S" with the strongest certainty, in that order. It is therefore reasonable to hypothesize that American people prefer a modality type with the weakest certainty, whereas British people prefer that with stronger certainty.

Finally, the four modality types induce the following genre frequency hierarchy, as indicated in Table 3:

(6) Genre Frequency Hierarchy:
   a. It is certain that S: Academic > Misc > Nonacademic > Newspaper > Fiction > Magazine > spoken
   b. It is probable that S: Academic > Nonacademic > Misc > Newspaper > Magazine > Spoken > Fiction
   c. It is likely that S: Academic > Misc > Nonacademic > Newspaper > Magazine > Spoken > Fiction
   d. It is possible that S: Academic > Nonacademic > Misc > Newspaper > Fiction > Magazine > Spoken

With respect to the genre analysis of the four modality types, the "academic" genre has the highest frequency (757 tokens) and the highest proportion (42.2%) among seven genres, whereas the "spoken" genre has the lowest frequency (14 tokens) and the lowest proportion (0.7%). As illustrated in (6), the "spoken" genre of the four modality types is not preferred by British people, whereas the "academic" genre is the most preferred one for British people, which indicates that the "academic" genre is the most accessible one for speakers or writers in U.K. In conclusion, the COCA and the BNC clearly show that the "academic" genre is preferred by both American people and British people to other genres and that it is influenced mainly by the use of the four modality types.

4. Four Modality Types: A Survey

4.1. Subjects

Twenty Korean EFL college students whose ages from 20 to 25 participated in this experiment. Adult subjects were undergraduate students at a private university in South Korea and selected from the Intensive English Learning Program. Only the adult subjects who successfully responded to a preliminary test were included in the main experiment. The subjects were then given the actual test. No feedback was given to the subjects on their performance during this experiment.

4.2. An Experiment for Four Modality Types

This experiment was designed to investigate adults’ knowledge of the four modality types. This experiment has two goals. The first goal is to provide answers to the question of whether or not Korean learners of English judge the use of the four modality types. We surveyed 20 individuals and asked them about the following two questions: Which type do you think is the most used one in all genres? Which type do you think is the most undesired one in all genres (if any)? The second goal is to provide answers to the following questions: Which is your preference among the four types? Which type is the most undesired one for you among the four types (if any)? The target sentences included the four modality types ("It is certain that S", "It is probable that S", "It is likely that S", and "It is possible that S").

4.3. Data Analysis

The goal of this section is to assess Korean learners’ responses to the four modality types. The 20 subjects (adult students participating in the Intensive English Learning Program) are asked the following questions: Which type do you think is the most used one in all genres? Which type do you think is the most undesired one in all genres (if any)? The first and second questions
were included to assess the subjects' knowledge of the four modality types. These are illustrated in Table 4 and Table 5, where 55% of the subjects show positive responses to "it is likely that S", and 50% and 35% show negative responses to "it is probable that S" and "it is certain that S", respectively:

<table>
<thead>
<tr>
<th>Context</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is likely that S</td>
<td>11</td>
<td>55%</td>
</tr>
<tr>
<td>It is possible that S</td>
<td>2</td>
<td>10%</td>
</tr>
<tr>
<td>It is probable that S</td>
<td>2</td>
<td>10%</td>
</tr>
<tr>
<td>It is certain that S</td>
<td>5</td>
<td>25%</td>
</tr>
</tbody>
</table>

**Table 4. Students' Responses to the First Question**

Noteworthy is that the subjects' positive responses to "it is likely that S" sharply exceed their positive responses to the other modality types. That is, these Korean learners of English show knowledge of the four types by rejecting the types "it is probable that S" and "it is certain that S" and by choosing the type "it is likely that S". Interestingly, unlike the frequency results from the COCA, these Korean learners of English did not consider "it is possible that S" as the most used type in all genres of the four modality types, which implies that they perceive British people's preference for "it is likely that S" (with stronger certainty) over "it is possible that S" (with the weakest certainty). That is, these Korean learners of English do not support the hypothesis that American people prefer using a modality type with the weakest certainty but do entertain the hypothesis that British people prefer a modality type with stronger certainty to that with the weakest certainty. On the other hand, the subjects' strongly negative responses to "it is probable that S" and "it is certain that S" (Table 5; 50% and 35%, respectively) may be attributed to common knowledge of language or general tendencies founded in all languages (Universal Grammar (Radford 1981, Crystal 1996, Chomsky 2013)). That is, it cannot be denied that Korean adults' negative responses to "it is probable that S" and "it is certain that S" may be affected by Universal Grammar (Chomsky 1981, 1986, 1989, 1995, 2000, 2001, 2013). It has been originally pointed out in Ringbom (2007) and further discussed in Kang & Morita (2013) that learners look for similarities whenever they can find them. In addition, Chomsky (2013) argues that "the simpler UG, the greater the hope that evolution of language might someday be at least partially understood" (Chomsky 2013). This suggests that for Universal Grammar (Chomsky (2013) to be simpler, it must contain universal properties found in all languages. This leads to the assumption that Korean learners' strongly negative responses to "it is probable that S" and "it is certain that S" may be due to the fact that their knowledge of the four modality types is affected by Universal Grammar. In this regard, it seems safe to conclude that Korean learners of English entertain the hypothesis that "it is certain that S" and "it is probable that S" are not preferred by native English speakers because the Korean learners of English may believe that modality types with strong certainty are not frequently used even in Korea.

The second goal of this section is to assess the subjects' responses to the following questions: Which is your preference among the four types? Which type is the most undesired one for you among the four types (if any)? As observed earlier, it is clear that "it is likely that S" is the most preferred modality type for the subjects. Similarly, there is another piece of evidence in support of the view that "it is likely that S" is the most preferred type among the four modality types.

**Table 5. Students' Responses to the Second Question**

<table>
<thead>
<tr>
<th>Context</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is likely that S</td>
<td>1</td>
<td>5%</td>
</tr>
<tr>
<td>It is possible that S</td>
<td>2</td>
<td>10%</td>
</tr>
<tr>
<td>It is probable that S</td>
<td>10</td>
<td>50%</td>
</tr>
<tr>
<td>It is certain that S</td>
<td>7</td>
<td>35%</td>
</tr>
</tbody>
</table>

**Table 6: Students' Responses to the Third Question**
The most striking difference in Table 6 is for "it is likely that S". Table 6 seems to crucially show that the subjects' positive responses to the question are somewhat consistent not with the results for the COCA but with those for the BNC. That is, these Korean learners of English showed a strong preference not for the types "it is certain that S", "it is probable that S", and "it is possible that S" but for the type "it is likely that S". These results thus provide confirmation for the main thesis of this article that the type "it is possible that S" is the most accessible type for American people, whereas the type "it is likely that S" is the most accessible type for British people and Korean learners of English. Again, the results based on Korean learners of English provide support to the hypothesis that British people prefer a modality type with stronger certainty to that with the weakest certainty but not for the hypothesis that American people prefer a modality type with the weakest certainty. Then what is the correlation between Table 6 and Table 7 and the frequency of the COCA and the BNC? Note that the order of American people's preferences and that of British people's preferences for the four modality types is clear but that the order of Korean learners' preferences is not clear. Again note that "it is possible that S" (with the weakest certainty) is the most preferred type for American people, followed by "it is likely that S" (with weak certainty), "it is probable that S" (with strong certainty), "it is certain that S" (with the strongest certainty), in that order, whereas "it is likely that S" (with weak certainty) is the most preferred type for British people, followed by "it is possible that S" (with the weakest certainty), "it is probable that S" (with strong certainty), "it is certain that S" (with the strongest certainty), in that order. On the other hand, "it is likely that S" (with weak certainty) is the most preferred type for Korean learners of English, followed by "it is possible that S" (with the weakest certainty), "it is probable that S" (with strong certainty) and "it is certain that S" (with the strongest certainty), in that order. Therefore, the order of the Korean learners' preferences is different from that of American people's preferences as well as that of British people's preferences although, as in the case of British people, the Korean learners of English show a strong preference for "it is likely that S".

Finally, a further point to be mentioned here is that "it is probable that S" and "it is certain that S" are not preferred by the Korean learners of English, just as they are not preferred by both American people and British people. This observation provides support for the hypothesis that "it is certain that S" and "it is probable that S" are currently not preferred by American people and British people because they tend to avoid modality types with strong certainty. This immediately raises the question of why modality types with strong certainty are not preferred by American people, British people, and Korean learners of English. This article argues that Korean learners' strongly negative responses to "it is probable that S" and "it is certain that S" may be due to the fact that their knowledge of the four modality types is affected by Universal Grammar (Chomsky 1981, 1986, 1989, 1995, 2000, 2001, 2013). The article further argues that another reason why "it is probable that S" and "it is certain that S" are not preferred by American people, British people, and Korean learners of English is because they are semantically marked. Crystal (1996) points out that "an unmarked property is one which accords with the general tendencies found in all languages, while a marked property is one which goes against these general tendencies" (Crystal 1996). This fact leads to the assumption that "it is probable that S" and "it is certain that S" are preferred by American people, British people, and Korean learners of English because "it is probable that S" and "it is certain that S" are semantically marked. On the other hand, this article argues that "it is possible that S" and "it is likely that S" are more natural and basic than "it is probable that S" and "it is certain that S" in that the former is not semantically marked. This may be why "it is possible that S" and "it is likely that S" are preferred by American people, British people, and Korean learners of English but "it is probable that S" and "it is certain that S" are not. Therefore, it may be concluded that, as can be seen from the cases of American people, British people, and Korean learners of English, avoiding modality types with strong certainty, such as "it is probable that S" and "it is certain that S", reflects the degree of markedness as well as Universal Grammar (the general and universal property of human language).

<table>
<thead>
<tr>
<th>Context</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is likely that S</td>
<td>9</td>
<td>45%</td>
</tr>
<tr>
<td>It is possible that S</td>
<td>7</td>
<td>35%</td>
</tr>
<tr>
<td>It is probable that S</td>
<td>2</td>
<td>10%</td>
</tr>
<tr>
<td>It is certain that S</td>
<td>2</td>
<td>10%</td>
</tr>
</tbody>
</table>

**Table 7: Students' Responses to the Fourth Question**

<table>
<thead>
<tr>
<th>Context</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is likely that S</td>
<td>4</td>
<td>20%</td>
</tr>
<tr>
<td>It is possible that S</td>
<td>1</td>
<td>5%</td>
</tr>
<tr>
<td>It is probable that S</td>
<td>7</td>
<td>35%</td>
</tr>
<tr>
<td>It is certain that S</td>
<td>8</td>
<td>40%</td>
</tr>
</tbody>
</table>
5. Conclusion

This article provides a frequency analysis of four modality types within the systems of the Corpus of Contemporary American English and the British National Corpus. The article argues that American people prefer a modality type with the weakest certainty, whereas British people prefer that with stronger certainty. On the other hand, the article contends that the types "it is probable that S" and "it is certain that S" are currently not preferred by both American people and British people because these are modality types with strong certainty, which American and British people tend to avoid. The results show that Korean learners of English do not support the hypothesis that American people prefer a modality type with the weakest certainty but do entertain the hypothesis that British people prefer a modality type with stronger certainty. That is, Korean learners of English show a strong preference not for "it is possible that S", "it is probable that S", and "it is "it is certain that S" but for "it likely that S". This suggests that "it is possible that S" is the most accessible type for American people, whereas "it is likely that S" is the most accessible one for British people and Korean learners of English. Finally, the article argues that the fact that that "it is probable that S" and "it is certain that S" are not preferred by American people, British people, and Korean learners of English is due to the degree of markedness and Universal Grammar (Chomsky 2013).

References


A Questionnaire
The following versions, which include an adjective or adverb with modality, induce a modality hierarchy varying from strong certainty to weak certainty: It is certain that S  >  It is probable that S  >  It is likely that S  >  It is possible that S. With this in mind, please answer the following questions.

1. Which type do you think is the most used one in all genres?

   1) It is likely that S (     )
   2) It is possible that S (     )
   3) It is probable that S (     )
   4) It is certain that S (     )

2. Which type do you think is the most undesired one in all genres (if any)?

   1) It is likely that S (     )
   2) It is possible that S (     )
   3) It is probable that S (     )
   4) It is certain that S (     )

3. Which is your preference among the four types?

   1) It is likely that S (     )
   2) It is possible that S (     )
   3) It is probable that S (     )
   4) It is certain that S (     )

4. Which type is the most undesired one for you among the four types (if any)?

   1) It is likely that S (     )
   2) It is possible that S (     )
   3) It is probable that S (     )
   4) It is certain that S (     )

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