Adverbial markers and tone in L1 and L2 students’ writing

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Abstract

In the past several decades, analyses of large corpora of published written texts in English have allowed for new insights into the meanings, uses, and functions of adverbials of all types. However, far less is known about the uses of adverbials in second language (L2) text. This paper presents a quantitative analysis of deictic, modifying, and intensifying adverbials, as well as several semantic classes of adverb clauses, and compares their median frequency rates in academic essays written by first-year NS and academically-advanced NNS students. The analysis focuses on NS and NNS uses of twelve semantic and syntactic classes of adverbials. The greatest pronounced differences between the essays of NSs and those of NNSs are identified in the frequency rates of amplifiers and emphatic adverbs, both of which are very common in informal conversations. Because for most NNS academically-oriented learners, the greatest amount of exposure to L2 usage takes place in conversational discourse, the frequency rates of adverb clauses in L2 texts is determined by the frequency of a particular clause type in the conversational genre, i.e. the more common certain types of adverb clauses in conversational discourse, the greater the likelihood of their high frequency rates in L2 academic essays.

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1. Introduction

According to Levinson (1983), the single most obvious relationship between language and context is reflected through the phenomenon of deixis, i.e. the means of
pointing and indicating. Levinson comments that text and discourse deixis includes language devices for identifying linguistic meanings in their contexts relative to various considerations, including those associated with conditionality, intensification, and place, time, and manner. Although the means of marking indexal features of discourse are diverse and distinct across languages, their textual roles largely pertain to marking existential relationships between objects, actions, and events in any given context. From this perspective, a text’s deictic features primarily have referential and attributive/modifying functions.

Among the many types of contextual indexal devices, adverbs and adverbials play a crucial role in discourse because they are most often employed to establish deictic references of relevant place, time, manner, and other parameters, which greatly affect how meanings in text are conveyed and understood. Hoye’s (1997) substantial work on the meanings, functions, and roles of adverbs and adverbials with modals in spoken and written texts further underscores their importance and extraordinary diversity in corpora of English language data. Hoye specifies that adverbials modify other sentence elements, such as adjectives, other adverbs, verbs, and entire clauses. Although his study did not focus specifically on adverb classification, according to his findings, the diverse meanings of adverbials fall into several classes, the largest of which include adverbials of place, time, duration, frequency, cause, and manner, and the structure of adverbs can range from single words (recently, today) to adverb phrases (at home, in the garden) to whole clauses (when John came).

The syntactic properties and mobility of adverbs were examined in the studies of Jacobson to identify regularities and frequencies in adverb sentential position, specifically in relation to auxiliaries. Jacobson’s research, based on a corpus of written British (Jacobson, 1964) and written and spoken American English (Jacobson, 1975), resulted in a thorough syntactic classification of adverbs by the placement and capacity for movement within a sentence, but without a great deal of attention devoted to their semantic or pragmatic taxonomy. On the other hand, Jacobson’s (1978) subsequent investigation also included semantic and pragmatic components that classified certain types adverbs according to their meanings. However, Jacobson’s semantic classification of adverbs was based on broad and somewhat indeterminate and subjective principles that grouped adverbs into such categories as, for example, those of degree, quality, and/or relationship, and their prototypical pragmatic (and often overlapping) functions, such as markers of sincerity (honestly, frankly), conclusion-making (no doubt, clearly), evaluation (luckily, regrettably), or confirmation/correction (in fact, in point of fact).

In their examination of cohesion in English, Halliday and Hasan (1976) also identify several large semantic classes of adverbs, which are further divided into subclasses based on their textual functions, e.g. emphatic, amplifying, concessive, repetitive, specific, durative, and terminal. Furthermore, the cohesive relationships between ideas and information in text are also referred to by means of adverbial markers that provide the indexal framework for events and actions (Halliday and Hasan, 1976). Similarly, Croft (1990) explains that in many languages other than English, adverb-like structures and particles are used to express temporality, intensity, causality, locationality, or direction. In Croft’s view, adverbs and various
adverbials represent linguistically universal means of marking textual and contextual deixis. In many languages, including English, adverbs and other forms of adverbials often have the functions of establishing the discourse frame for the temporality, locationality, and tone of text and context.

In the past several decades, analyses of large corpora of published written texts in English have allowed for new insights into the meanings, uses, and functions of adverbials of all types, and much new information has become available about the uses of these features in text construction. According to Biber (1988) and Biber et al. (1999), the adverbs of time and place and intensifiers are frequent in spoken and conversational discourse but rarely occur in formal academic text. Their corpus analyses further show substantial variation of features across different discourse registers. In fact, the uses of particular text features in the corpus can function as register markers to distinguish, for example, spoken or written genres, and formal vs. informal tone.

Other recent studies have discussed the uses and functions of adverbs, adverb-like particles, and adverbial adjuncts common in various Asian languages. For instance, research demonstrates that in Chinese, semantic classes of adverbs comprise numerous particles and markers with the meanings of time, location, direction, habituality, probability, and intensity (Zhu, 1996). Time adverbs in Chinese are further classified as temporal adverbs, which locate an action or event on the time deixis and indicate how long it has been since it occurred, and durational adverbs, which refer to the time length of an event. In Japanese and Indonesian, adverbs usually modify whole clauses and convey meanings of time, place, manner, cause, and frequency of actions or events. In Japanese and Korean, adverbs, adverb phrases, and adverbial particles can modify nouns, verbs, and whole clauses and are also divided into classes with meanings of time, place, quantification, nominalization, and duration (Lee, 1993). However, because in Chinese, Japanese, and Korean, adverbs are often postpositional, it may be difficult to differentiate between locative, temporal, durational, and frequency adverbials, particles, and other type of markers in these languages (Norman, 1990; Shibatani, 1990).

Despite substantial insights gained into the meanings and functions of adverbs in linguistic systems, far less is known about the uses of adverbial features in second language (L2) text. An investigation of adverb uses in L2 text and discourse may be particularly important in light of earlier findings that the transfer of meanings and functions of adverbials from the first language (L1) to L2 may occasionally obscure communication and appear confusing (Hinkel, 1999; Scollon and Scollon, 2001).

The studies of adverbials in written L2 text have largely followed Halliday’s and Hasan’s (1976) seminal work on cohesion and have focused on sentence conjunctions (however, therefore, thus), because they have readily identifiable textual functions (Nash and Stacey, 1997). On the other hand, because in English and other languages the uses and functions of various types of adverbials, such as deictic and emphatic, are complex, little attention has been devoted to their role in constructing L2 written text. Hence, in the practical venue of L2 text and discourse production, identifying the specific differences in the uses of adverbs in nonnative speaker (NNS) and native speaker (NS) texts can provide important insights into divergences in L1
and L2 deictic marking of text, register, and syntactic and lexical range of features. This paper presents a quantitative analysis of deictic, modifying, and intensifying adverbials, as well as several semantic classes of adverb clauses and compares their median frequency rates in academic L1 and L2 essay texts, written by first-year NS and academically-advanced NNS students. The utilitarian goal of this investigation is to identify the specific adverbial features of L2 usage that can make NNS text appear confusing and even obscure.

The selection of adverbs and adverb clauses for inclusion in the study is primarily based on their commonality, importance, meanings, and functions in academic written text in English (Biber et al., 1999; Chafe, 1985; Halliday and Hasan, 1976; Quirk et al., 1985). To determine how most common semantic classes of adverbials are employed in L1 and L2 essay texts, the analysis focuses on single-word adverbs and adverb phrases of time, place, and manner, as well as amplifiers, emphatics, and downtoners. In addition, adverb clauses of cause, concession, purpose, and other meanings, e.g. time, place, and manner, as well as reduced adverb clauses are also included. In all, this study investigates the NS and NNS uses of twelve semantic and syntactic classes of adverbials employed in all occurrences and clausal positions.

2. The study

2.1. The data

The investigation of adverb and adverb clauses is based on the data obtained from essays written by NS and NNS students in four comprehensive US universities during routine writing skills assessment tests. The corpus of student texts consists of 170,035 words and 569 essays written by speakers of five languages: 126 NSs of American English, 112 Chinese, 117 Japanese, 101 Korean, and 113 Indonesian. Of the NSs whose essays were analyzed, 91% attended private universities on the US east and west coasts and were first-year students enrolled in required composition classes. The other 9% were similarly enrolled in first-year composition classes in a public university in the Midwest. The placement and diagnostic tests were administered to the NSs at the very beginning of their first required writing classes. These students had not received prior writing instruction at the university level.

All of the 443 NNSs had achieved a relatively high L2 proficiency, with TOEFL scores ranging from 550 to 620 (an average of 587) and had been admitted to undergraduate and graduate programs and actively pursued studies toward their degrees. Over 81% of the NNS students held Associate’s degrees from various community colleges and were enrolled as juniors in their academic programs. The other 19% were divided between first-year (11%) and graduate students (8%). A successful completion of college-level studies and admission as juniors in a 4-year university point to the students’ substantial exposure to and experience with US academic frameworks and training. Of the NNS first-year students, more than half had been enrolled in US high schools for 3–4 years, and some had spent up to 9 years in the US. The details of the corpus by L1 sample size are presented in Table 1.
The prompts for NS and NNS essays were identical in every way (see below). Because the essay corpus simply consists of placement and diagnostic tests routinely administered to all students, no attempt was made to differentiate NSs or NNSs by gender or age. All students were given one class period to write the essays. The students wrote their essays in response to assigned prompts that were modeled on the Test of Written English, administered by the ETS, as well as those found in many writing/composition textbooks. All essay prompts were designed to elicit writing in the rhetorical mode of argument/exposition with the purpose of convincing/informing an unspecified general audience (Hacker, 1994; Leki, 1999). The three prompts included the following:

1. Some people learn best when a classroom lesson is presented in a serious, formal manner. Others prefer a lesson that is enjoyable and entertaining. Explain your views on this issue. Use detailed reasons and examples.
2. Many educators believe that parents should help to form their children’s opinions. Others feel that children should be allowed to develop their own opinions. Explain your views on this issue. Use detailed reasons and examples.
3. Some people choose their major field of study based on their personal interests and are less concerned about future employment possibilities. Others choose majors in fields with a large number of jobs and options for employment. What position do you support? Use detailed reasons and examples.

Despite the fact that the numbers of NS and NNSs texts written toward each prompt were not identical, they are largely comparable, resulting in samples of comparable size. The specific numbers of essays for each prompt are shown in Table 2.

2.2. Statistical analysis of data

The occurrences of adverbs and adverb clauses in essay texts were counted separately for each semantic class. To determine whether NSs and NNSs similarly used adverbs and adverb clauses in their essay texts, the number of words in each of the 569 essays was also counted. Then the percentage rate for each adverb class was

<table>
<thead>
<tr>
<th>L1 groups</th>
<th>Number of essays</th>
<th>Number words/essay (mean)</th>
<th>Total number of words/sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSs</td>
<td>126</td>
<td>281</td>
<td>35,406</td>
</tr>
<tr>
<td>Chinese</td>
<td>112</td>
<td>303</td>
<td>33,936</td>
</tr>
<tr>
<td>Japanese</td>
<td>117</td>
<td>260</td>
<td>30,420</td>
</tr>
<tr>
<td>Korean</td>
<td>101</td>
<td>289</td>
<td>29,189</td>
</tr>
<tr>
<td>Indonesian</td>
<td>113</td>
<td>364</td>
<td>41,132</td>
</tr>
<tr>
<td>Totals</td>
<td>569</td>
<td>293</td>
<td>170,083</td>
</tr>
</tbody>
</table>
calculated for each essay text. For example, NS essay #2 consisted of 300 words and, in all, included three adverbials of place (in class, there, in my country) and two adverbials of time (today, these days). To compute the percentage rate of place adverbials identified in the essay, a computation was performed, (i.e. 3/300 = 1%), and then repeated for two occurrences of time adverbials (i.e. 2/300 = 0.67%).

The data analysis employs non-parametric statistical comparisons of the NS and NNS data because most of the data in the sample were not normally distributed. The Mann–Whitney U Test was selected as a conservative measure of differences between the NS and NNS data to compare two sets of data based on their ranks below and above the median.

3. Results and discussion

The median frequency percentage rates for all classes of adverbs and adverb phrases and the results of the statistical tests are presented in Table 3. The discussion

Table 2
Corpus size by prompt

<table>
<thead>
<tr>
<th>L1 group</th>
<th>Prompt 1</th>
<th>Prompt 2</th>
<th>Prompt 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSs</td>
<td>40</td>
<td>47</td>
<td>39</td>
</tr>
<tr>
<td>Chinese</td>
<td>39</td>
<td>34</td>
<td>39</td>
</tr>
<tr>
<td>Japanese</td>
<td>34</td>
<td>41</td>
<td>42</td>
</tr>
<tr>
<td>Korean</td>
<td>33</td>
<td>32</td>
<td>36</td>
</tr>
<tr>
<td>Indonesian</td>
<td>37</td>
<td>35</td>
<td>41</td>
</tr>
<tr>
<td>Totals</td>
<td>183</td>
<td>189</td>
<td>197</td>
</tr>
</tbody>
</table>

Table 3
Median frequency rates for semantic classes of adverbs and adverb phrases in NS and NNS texts (%)

<table>
<thead>
<tr>
<th>Adverbials</th>
<th>NSs</th>
<th>CH</th>
<th>JP</th>
<th>KR</th>
<th>IN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>0.83</td>
<td>1.05*</td>
<td>0.77</td>
<td>0.83</td>
<td>0.74</td>
</tr>
<tr>
<td>Range</td>
<td>5.00</td>
<td>4.20</td>
<td>3.92</td>
<td>2.94</td>
<td>3.44</td>
</tr>
<tr>
<td>Place</td>
<td>2.09</td>
<td>1.95</td>
<td>1.55*</td>
<td>1.07*</td>
<td>1.58</td>
</tr>
<tr>
<td>Range</td>
<td>4.76</td>
<td>5.68</td>
<td>6.25</td>
<td>6.10</td>
<td>4.96</td>
</tr>
<tr>
<td>Manner</td>
<td>0.50</td>
<td>1.16**</td>
<td>0.47</td>
<td>0.99*</td>
<td>1.04*</td>
</tr>
<tr>
<td>Range</td>
<td>2.78</td>
<td>3.93</td>
<td>3.00</td>
<td>4.47</td>
<td>3.70</td>
</tr>
<tr>
<td>Amplifiers</td>
<td>1.82</td>
<td>3.50**</td>
<td>3.33*</td>
<td>2.86*</td>
<td>3.00*</td>
</tr>
<tr>
<td>Range</td>
<td>7.50</td>
<td>7.40</td>
<td>12.28</td>
<td>9.65</td>
<td>7.04</td>
</tr>
<tr>
<td>Emphatics</td>
<td>1.48</td>
<td>3.48**</td>
<td>3.41*</td>
<td>2.70*</td>
<td>2.73*</td>
</tr>
<tr>
<td>Range</td>
<td>5.77</td>
<td>6.80</td>
<td>12.50</td>
<td>10.92</td>
<td>7.91</td>
</tr>
<tr>
<td>Downtoners</td>
<td>0.68</td>
<td>0.89</td>
<td>0.56</td>
<td>0.44*</td>
<td>1.00*</td>
</tr>
<tr>
<td>Range</td>
<td>4.17</td>
<td>3.13</td>
<td>2.78</td>
<td>2.44</td>
<td>3.70</td>
</tr>
</tbody>
</table>

Note: all comparisons are relative to NS median rates.
* 1-tailed \( P \leq 0.05 \).
** 2-tailed \( P \leq 0.05 \).
of the study findings includes descriptions of properties and functions of adverbials, a brief overview of their meanings and uses in identified in research on various languages, and the patterns of median frequency rates in NS and NNS essay texts.

3.1. Adverbs

3.1.1. Time adverbs

Adverbs of time, e.g. at last, already, finally, from now/then, immediately, just, now, nowadays, since xxx, soon, then, today, up to now/then/xxx day, yesterday, last/next/past time/month/year/Monday; prepositional phrases of time marked by prepositions after/at/during/for/in/on/till/until (+ temporal/durational noun). For example, Right now, there are many international students who came to the United States to continue their studies (Chinese).

Time adverbs identify temporal, sequential, preceding, successive, and other relationships between actions and events in texts that range from phrases to sentences to whole narratives. They establish and maintain temporal discourse deixis and play an important role in text cohesion (Halliday and Hasan, 1976). Chafe (1994) points out that adverbs of temporality and location are textual deixes of the division of time and space. These features indicate whether the deixes of time and space are of proximal and distant relevance to information flow and narrative development and orient the audience within the discourse framework. In written text, time adverbs determine contextually-appropriate tenses and mark the temporality of objective and narrative events, i.e. time markers represent “the construal of time” (Chafe, 1994: 77). In English, with its developed system of inflectional and morphological tenses, time adverbs frame discourse and, in this way, necessitate tense shifts (Croft, 1998).

According to Biber et al.’s (1999: 561) analysis of large English language corpora, time adverbs are far more common in conversational than written discourse, and written academic prose includes very few of them (around 200 per one million words, i.e. 0.02%). Among the adverbs in this class, now, then, again, and still are employed more often than, for instance, today, ago, or yesterday, which are hardly ever encountered. As the data in Table 3 show, in the essay texts in this study, the median frequency rates of time adverbs did not differ significantly in NS and NNS texts for all L1 groups. The only exception were the texts of Chinese speakers whose essays included these deictic markers substantially more frequently than NS texts did (median frequency rates of 1.05 and 0.83, respectively).

Many Asian languages, including Japanese, Korean, and Indonesian, have developed systems of indexal time-markers, which are used to anchor text along the temporal continuum relative to the present or the time overtly referenced within the discourse frame (Shibatani, 1990; Sneddon, 1996). However, the temporal frames

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1 Limited to the adverbials encountered in the corpus.
2 All examples of sentences here and below identified by native languages are from student texts included in the corpus.
established by time markers apply to entire portions of discourse and do not need to be repeated until the time deixis shifts within the context.

According to Norman (1990), however, in Chinese the distinctions between time- and space-words, and subject nouns and various divisions of time (e.g. \[ in the \] future go to \ldots ) are often difficult to distinguish. Thus, it may be that in their L2 texts (see Table 3), Chinese speakers employed time adverbials more frequently than NS students did with the purpose of re-establishing the discourse time frame, despite the fact that in English time adverbs have relatively unambiguous deictic functions. For example, Students can understand the class material more if teachers teach in formal manner during the lecture. When students pay more attention during their lessons, they are able to note the important points that the instructor is talking about. In America, many professors like to ask questions to the students nowadays because they want students to think. (Chinese).

3.1.2. Place adverbs

Adverbs of place, e.g. here, there, in/at/from/to/into/out/out of/away/away from + noun (phrase). For example, In my country, parents try to give their children all the best things they can, but they forget to ask their children what they really want. Here children have a lot of independence. (Korean)

Similar to time adverbs, place adverbs establish the locational frame of a text (or narrative) and can be employed as a cohesive localizer (Halliday and Hasan, 1976). While Francis (1994) found that place adverbs are common in written academic corpora, Biber et al. (1999: 561) distinguish between semantically and lexical simple place adverbs and more complex constructions. Their corpus analysis determined that such lexically simple spatial markers as here, there, and away are rare in academic prose, but more syntactically advanced adverbial phrases of place occur more frequently.

The findings of this analysis of L1 and L2 student essays (see Table 3) show that speakers of Chinese and Indonesian employed place adverbs at median frequency rates similar to those in NS texts. On the other hand, Japanese and Korean speaker prose (medians 1.55 and 1.07, respectively) included significantly lower rates of these adverbs than NS essayss did (median 2.09). Sells (1998: 501) points out that “the principle of economy” operates on many levels in Japanese and Korean discourse, with an assumption that if an indexical discourse marker can be understood from context, its repetition is to be avoided. Therefore, it may be that the Korean and Japanese speakers who wrote the essays chose to avoid the (unnecessary) repetition of place adverbials in contexts where the place deixis remained constant throughout a portion of discourse.

3.1.3. Manner adverbs

Adverbs of manner, e.g. briefly, brightly, broadly, eagerly, enthusiastically, evidently, fast, frankly, generally/in general, honestly, openly, privately, quickly, quietly, rightly, roughly, seriously, silently, sincerely, strictly, truly, truthfully, widely, wisely, wrongly. For example, When students make their decisions quickly, they will regret their choices of majors after they graduate and cannot find any jobs. (Japanese).
Adverbs of manner, usually derived from descriptive adjectives, modify particular features of adjectives, verbs, or whole clauses. They are common in written academic prose in English and can also function as hedges and conjuncts (Huebler, 1983). According to Hyland (1998), epistemic adverbs, which include adverbs of manner, represent a common type of hedging in academic journal articles, and a majority of these adverbs can be highly mobile within the clause structure. Other examinations of written academic corpora (Biber et al., 1999: 561; Hoye, 1997: 215) similarly found that manner adverbs with modifying functions are more prevalent in written than spoken genre. Although manner adverbs that function as hedges and peripheral descriptors are discussed in many studies of text and its properties, they are not even mentioned in most writing guides and textbooks.

In languages such as Chinese, single-word adverbs that modify adjectives and verbs are actually relatively few (e.g. only, very, most), and most manner modifiers take the form of suffixes or particles. In Chinese, parts of speech often overlap (e.g. similar to the noun drink and the verb to drink in English), and adverbs actually do not exist as a distinct morphological class. Similarly, in Korean, apart from a small group of temporal adverbs (today, yesterday, last month), in general, manner modifiers consist of adjunct particles or morphemes. In Indonesian, manner modifiers may be indistinguishable from adjectives or verb phrases with locative, durational, instrumental, focusing, or benefactive meanings (e.g. we live+near, they go+together, he sing+loud) (Sneddon, 1996).

The results of this study (Table 3) indicate that in their texts, speakers of Chinese, Korean, and Indonesian employed manner adverbs with median frequency rates of 1.16, 0.99, and 1.04, respectively, i.e. twice that in NS texts (median 0.50). An important, but seemingly counter-intuitive observation may explain this finding. The high frequency rates of manner adverbs in the essays of Chinese, Korean, and Indonesian speakers may actually evince shortfalls, rather than breadth in the writers’ accessible lexicon. Most manner adverbs are derived from corresponding adjectives, and therefore, the syntactic properties of these features are relatively simple. The primary textual function of manner markers is to modify the meanings of other sentence elements, and the speakers of Chinese, Korean, and Indonesian often provided somewhat excessive and lexically simple modification prevalent in the conversational genre. For example, I think that most difficult issues and problems can be solved easily by teacher’s teaching. When the teacher teaches seriously, the students will learn correctly. On the other hand, if the teacher does not teach seriously, students can think that they do not need to study. (Korean).

3.1.4. Amplifiers

Amplifiers include such items as: absolutely, a lot (+ comparative adjective), (negative verb+) a thing, e.g. does not/cannot learn a thing), altogether, always, amazingly, awfully, badly, by all means, completely, definitely, deeply, downright, forever, enormously, entirely, even (+ adjective/noun), ever, extremely, far (+ comparative adjective), far from it, fully, greatly, highly, hugely, in all/every respect(s)/way(s), much (+ adjective), never, not half bad, positively, perfectly, severely, so (+ adjective/verb/adverb), sharply, strongly, too (+ adjective), terribly, totally,
unbelievably, very, (so) very much, well. For example, Last year, I had to take a class in business ethics, and I always had trouble remembering what the professor said. (Korean).

The function of amplifiers is to increase the scalar lexical intensity of gradable adjectives or verbs (Quirk et al., 1985: 445), and they have the textual functions of intensifiers, exaggeratives, and overstatements. In academic texts in English, amplifiers, as well as such extreme markers of the time continuum as always and never, usually mark exaggerations. Biber et al. (1999: 565) found that in general, intensifiers, such as always, never, and really are hardly ever encountered in the published academic genre. On the other hand, very is relatively more common with 600 occurrences of one million words (0.06%). Because amplifiers are generally considered to be inappropriate in formal academic text, instructional textbooks on writing and composition advise against their use and recommend other more appropriate means of expressing the degree of writer’s conviction, such as detailed supporting information and specific factual descriptions (Smoke, 1999).

On the other hand, in Chinese, Japanese, Korean, and Indonesian, amplification and intensification can be acceptable means of persuasion. These languages have highly developed systems of adverbs or particles that convey a high degree of intensity, emphasis, desirability, and/or truthfulness (Connor, 1996; Taylor, 1995; Zhu, 1996). For example, Japanese intensifiers are degree adverbs with the scalar meanings of completion, totality, strong sentiment, and most frequently, general emphasis (e.g. indeed, no matter, very, extremely) (McGloin, 1996).

Earlier studies have shown that academic texts produced by Chinese, Japanese, Korean, and Indonesian speakers rely on amplifiers and emphatics as a means of persuasion intended to project a high degree of the writer’s conviction, sincerity, and truthfulness (Hinkel, 1999; Maynard, 1997). In this study, amplifying adverbs, such as very (much), always, never, and forever were particularly common in NNS texts. However, in the case of L2 university-level essays, frequent uses of these intensifiers are associated with colloquial style and an exaggerated tone that is often considered to be inappropriate in formal academic texts, which rely on authorial objectivity and distance (Hinkel, 2002).

The data in Table 3 similarly demonstrate that NNS writers in all language groups employed amplifiers at significantly greater median rates than NSs did. Overall, the high rates of intensifiers in L2 texts may be an outcome of the writers’ lack of other more appropriate lexical means of developing academic argumentation. The high rates of emphatic adverbs (see below) identified in L2 compositions additionally point to the colloquial style and limited lexical repertoire in NNS prose.

3.1.5. Emphatic adverbs (de-adjectival)

Emphatics are marked by: (verb +) a lot (e.g. study a lot), awful(ly)/something awful, certain(-ly), clear(-ly), complete(-ly), definite(-ly), exact(-ly), extreme(-ly), for sure, great(-ly), indeed, no way, outright, pure(-ly), real(-ly), strong(-ly), sure(-ly), total(-ly), e.g. I definitely believe that parents should let their children make their own choices. I’ve seen a lot of miserable families where parents totally control their children. (Japanese).

Emphatic adverbs are usually derived from adjectives, and in text and discourse, their purpose is similar to that of amplifiers, i.e. to strengthen the truth-value of a
Proposition or claim. The employment of emphatics does not necessarily imply that the modified clause constituent is gradable, but it becomes gradable with the addition of emphatics (Quirk et al., 1985: 469). In discourse, emphatics are associated with an informal register and are more characteristic of speech than of formal writing (Chafe, 1985). Hyland’s (1998, 1999) corpus analysis of published academic text shows that the usage of emphatics may be discipline-dependent: they are comparatively more frequent in published texts in philosophy, marketing, applied linguistics, physics, and mechanical engineering than in sociology, biology, and electrical engineering.

Earlier investigations of L2 students’ uses of amplifiers and emphatics, as well as of other expressions of certainty and definiteness (e.g. modal verbs and universal pronouns), found that NNS writers frequently rely on a more limited lexical and syntactic range of these devices and employ them with significantly higher frequencies than NS students with similar levels of schooling (Hinkel, 1997; Hyland and Milton, 1997). In this study, as with amplifiers, NNS students in all groups (Table 3) employed markedly higher rates of emphatics than NSs did.

3.1.6. Downtoners

Common downtoners include such items as: at all, a bit, all but, a good/great deal, almost, as good/well as, at least, barely, basically, dead (+ adjective), enough, fairly, (a) few, hardly, in the least/ slightest, just, (a) little (+ adjective), merely, mildly, nearly, not a bit/thing/person, only, partly, partially, practically, pretty (+ adjective), quite3 (+ adjective), rather, really, relatively, scarcely, simply, slightly, somewhat, sufficiently, truly, virtually. For example, Everyone knows that it is simply impossible to get a major that will last for your lifetime, and basically, it is the economy’s fault. (Indonesian).

Meanings and functions of downtoners are proximate to those of hedges and the opposite of that of amplifiers and emphatics, i.e. downtoners reduce the scalar intensity of verbs and adjectives. In academic texts, their purpose is to soften the qualitative and emotive impact of verb and adjective meanings (Hyland, 1998, 1999). According to Biber (1988: 240) and Quirk et al. (1985: 597), unlike hedges, downtoners have a primary function of lowering the effect of verb meanings, and in academic prose they serve as markers of probability and evidentiality.

It is important to note that downtoners differ in the degree of their formality, semantic complexity, and frequency. For instance, such items as at all, almost, at least, basically, (a) few, enough, hardly, just, (a) little, only, and pretty are prevalent in informal conversational discourse. On the other hand, Hoye (1997) explains that formal downtoners (e.g. fairly, merely, nearly, partly, partially, sufficiently) are predominant in formal and written discourse. Biber et al. (1999: 562) note that only is the most common downtoner found in academic texts, while just and quite are rare.

Downtoners were not particularly popular in the essays of NSs and NNSs alike, and, relative to the NS median frequency, the results of the comparisons were somewhat mixed. While speakers of Chinese and Japanese employed these adverbs

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3 According to Quirk et al. (1985), quite can be also used as an amplifier in hyperpolic contexts (591), rather as an intensifier in constructions without explicit negation (786), and simply as an emphatic in statements that convey “the speaker’s assertion that his words are the unvarnished truth” (583).
at rates similar to those identified in NS texts, Korean speakers used them significantly less often, and Indonesian speakers significantly more frequently. In line with the findings of various corpus analyses, such downtoners as *almost, just, only, little, few,* and *hardly* were common in student texts regardless of their L1s, although more semantically complex items, such as *virtually* or *merely* were not.

In general terms, the comparisons of median frequency rates of time, place, and manner adverbs and adverb phrases in NS and NNS essays indicate that the textual indexing of time was used similarly in most NS and NNS texts, while the rates of manner adverbs differed significantly in L1 and L2 prose, with the exception of that in the Japanese speaker sample. On the other hand, amplifiers and emphatics were encountered significantly more frequently in all NNS texts, compared to those in NS texts.

### 3.2. Full adverb clauses

Similar to single-word adverbs and adverb phrases, adverb clauses have various meanings and contextual functions, and most are overtly marked by means of subordinating conjunctions, such as cause (*as, because, since, for*), concession (*although, though*), condition (*if, whether, unless*), purpose (*so, so that*), and other wh-markers (*Hoye, 1997*) (e.g. time—*after, before, when, while*, manner—*as, in the way that*, or comparison—*as ... as, like*). Overall, full adverb clauses are more frequent in informal and conversational than in formal language uses.

#### 3.2.1. Cause clauses

Adverb clauses of cause (*because, since, as, for*) represent a prominent characteristic of spoken discourse in English and serve as a most direct means of indicating causal relationships between actions and events in context. According to Biber et al. (1999: 821), they are particularly rare in academic prose, possibly due to the fact that in many academic texts, direct relationships between causes and their outcomes cannot be easily specified. Biber et al. comment, however, that among all cause subordinators used in conversation, fiction, or news reportage, *because* was found as the single predominant marker. In academic prose, 1000 *because* and 400 causal *since* subordinators occurred per one million words, i.e. 0.14% for both conjunctions combined (842). In ESL grammar teaching, however, practically every text devotes some amount of attention to adverb clauses of cause and their uses. In addition, in composition and writing instruction, causative clauses are encouraged in such widely-assigned academic writing tasks as cause-and-effect essays with the goal of developing students’ analytical, argumentation, and persuasion skills (Hacker, 1994; Leki, 1999).

Although causative structures and conjunctions seldom appear in English language academic texts, they are prevalent in the English usage of speakers of Asian languages, such as Korean, Chinese, and Japanese, possibly due to the influence of the subject-topic syntactic constructions in these languages (Scollon and Scollon, 2001).

The research into meanings and uses of the many causative constructions in these languages indicates that they are enormously complex, syntactically, semantically,
and lexically. For instance, in Chinese (Norman, 1990), the markers of cause/reason do not necessarily take the form of adverbials but can be inextricable from the functions of transitive verbs, animate and inanimate clause subjects and objects, with the attendant considerations of the active and passive voice and passivization. According to Kim (1990), causal relationships among actions and events in Korean discourse can be marked by suffixes combined with implicit sequential arrangements of information along the temporal deixis. In this case, the markers of causation cannot be distinguished from those of temporality and sequentiality (e.g. *The boy saw the fruit in the old man’s basket. The old man did not see the boy, and then the boy took the fruit.*) In her investigation of causative constructions in Japanese, Hudson (1998) explains that most of these features consist of suffixes, particles, and coordinators, the meanings and functions of which depend on such complex constructs as information sequencing and factuality. In addition, syntactic properties of verbs, e.g. capacity for agency, subject and object noun animacy, and transitivity play an important role (Shibatani, 1990).

As has been noted, in many cases, NNS academic essays often exhibited features indicative of restricted syntactic, semantic, and lexical repertoire typical of conversational discourse. The median frequency rates of cause clauses (see Table 4) in L2 texts were at least 50% greater in the texts of Chinese and Korean speakers, and in essays of Japanese and Indonesians twice the rates of these constructions in NS prose.

The preponderance of these clauses in NNS texts points to a conflation of several factors that may be generally true of other adverbial features in L2 academic text. It

<table>
<thead>
<tr>
<th>Adverbials</th>
<th>NSs</th>
<th>CH</th>
<th>JP</th>
<th>KR</th>
<th>IN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause</td>
<td>0.28*</td>
<td>0.44*</td>
<td>0.57**</td>
<td>0.51**</td>
<td>0.56**</td>
</tr>
<tr>
<td></td>
<td>Range</td>
<td>2.72</td>
<td>2.42</td>
<td>4.17</td>
<td>2.31</td>
</tr>
<tr>
<td>Concession</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>Range</td>
<td>0.96</td>
<td>1.00</td>
<td>1.06</td>
<td>1.68</td>
</tr>
<tr>
<td>Condition</td>
<td>0.57</td>
<td>0.85*</td>
<td>0.63*</td>
<td>0.56</td>
<td>0.40*</td>
</tr>
<tr>
<td></td>
<td>Range</td>
<td>3.85</td>
<td>2.07</td>
<td>3.92</td>
<td>2.86</td>
</tr>
<tr>
<td>Purpose</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00*</td>
<td>0.00*</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>Range</td>
<td>1.15</td>
<td>1.15</td>
<td>1.67</td>
<td>0.91</td>
</tr>
<tr>
<td>Other</td>
<td>0.46</td>
<td>0.91**</td>
<td>0.50</td>
<td>0.51</td>
<td>0.71**</td>
</tr>
<tr>
<td></td>
<td>Range</td>
<td>4.17</td>
<td>3.50</td>
<td>2.52</td>
<td>3.29</td>
</tr>
<tr>
<td>Reduced</td>
<td>0.31</td>
<td>0.00*</td>
<td>0.00**</td>
<td>0.00**</td>
<td>0.00**</td>
</tr>
<tr>
<td></td>
<td>Range</td>
<td>2.88</td>
<td>2.38</td>
<td>0.85</td>
<td>1.36</td>
</tr>
</tbody>
</table>

Note: all comparisons are relative to NSs.
* 1-tailed \( P \leq 0.05 \).
** 2-tailed \( P \leq 0.05 \).
is likely that L2 writers followed the patterns promoted in instructed academic writing, transferred the uses of causal constructions from their L1s to L2, and relied on syntactic and lexical features associated with conversational register when constructing formal written academic text.

3.2.2. Concession clauses

Concession clauses (although, (even) though, while, whereas) have meanings and functions that are somewhat more sophisticated than cause clauses largely because of the complexity of the concept of concession in written text and text cohesion. The information in the adverb clauses of concession is usually of secondary importance to the flow of ideas in text. For example, Although my parents told me not to chose art as my major, I did it any way, and so when they didn’t pay for my tuition, I had to switch to business which I hate. (Korean).

The function of concession clauses in discourse is to present ideational content in a balanced fashion to provide evidence of the writer’s credibility (Hinkel, 1999). Biber et al.’s (1999: 824) analysis of written English shows that in general, concessive clauses are more common in academic than other types of prose where they perform the function of hedging devices to show the limitations of facts, evidence, or claims. In such languages as Japanese and Korean, concessive meanings of suffixes and particles are intertwined with those of counterfactual, conditional, future-predicative, and other contingency-stipulative constructions. Chinese concessive structures take the form of coordinating conjunctions and/or temporal markers, and as such, concessive subordinate clauses do not exist in either Chinese or Indonesian (Norman, 1990; Sneddon, 1996). However, because in English concession clauses are syntactically and semantically advanced subordinate constructions (Hamp-Lyons, 1991), they were scarce in NS or NNS texts alike (median rates 0.00 for all groups) (see Table 4).

3.2.3. Conditional clauses

Conditional clauses (if, whether, unless) express a direct action or event on which the action, event, or proposition in the main clause is contingent. In academic text, conditional clauses can perform the role of hedges (Huebler, 1983), and they are more common in spoken than in written discourse (Biber, 1988). For example, If you are majoring in something without interest, you would hate the job you work for and will also regret why you didn’t major in a field that you like to do most. (Chinese).

In English-language academic prose, conditional adverb clauses are far more prevalent than any other types of adverb subordinate constructions, although the greatest majority was identified in conversations and informal discourse (Biber, 1988; Biber et al., 1999: 821). In most academic texts, conditional clauses are employed to specify the conditions that are to be met for the propositions or claims to hold true.

Constructions that express explicit and implicit conditionality exist in all of the languages whose speakers wrote the essays. However, as has been mentioned, in Japanese and Korean, conditional meanings of adverbs, suffixes, and particles are tied together with other semantic elements, such as concession, temporality, futurity, and factuality (Shibatani, 1990). Compared to the concept of concession, the
semantic construct of conditionality can be relatively simple when expressed by means of various sentence-linkages, such as xxx, then structures in Indonesian, e.g. You study hard and then you pass the exam (Sneddon, 1996), or similar Chinese sequential clauses with implicit conditions/contingencies, e.g. Human being live in this world, they have to work hard.

The median frequency rates for conditional clauses (Table 4) were similar in Korean and NS texts (medians 0.56 and 0.57, respectively), but essays of Chinese and Japanese speakers contained significantly higher median frequencies of these clauses (medians 0.85 and 0.63, respectively). Conditional clauses were markedly less common in the prose of Indonesian speakers (median 0.40) than in NS texts. It is important to note, however, that in this study, implicit conditionals without overt markers if, whether, and unless were not included in the counts of features, and it may be that these constructions cannot be readily identified in feature-based corpus analysis.

3.2.4. Purpose clauses

Adverb clauses of purpose (so (that), in order that) were found in fewer than half of the essays in all L1 groups (medians 0.00) (see Table 4). Purpose adverb phrases appear to be common in academic texts, though, where they are employed in infinitival constructions in order+to or so as+to. It is interesting to note that full adverb clauses of purpose without reductions are rare in both conversational and written genres (Biber et al., 1999: 820). Although few NSs used full purpose clauses in their essays, their frequency rates in the essays of Japanese and Korean speakers were significantly fewer still. For example, Parents should not try to tell their children everything that they need to do so that they can be prepared for the future when their parents are not around any more (Japanese). Although purpose clauses are syntactically complex, their meanings and functions can be easily conveyed by means of far simpler infinitive phrases that do not require either grammatical or lexical sophistication. Thus, it seems reasonable that neither NSs nor NNSs seemed to see them as essential textual features.

3.2.5. Other types of adverb clauses

Other adverb clauses include those with the meanings of: Time (after, as, as long as (excluding conditional meanings), as often as, as soon as, before, now that, once, since (excluding causative meanings) till, until, when, whenever, while; Place (where, wherever); Manner (as, at what+time/place, (in) the way (that), where (it + verb, e.g. counts/matters) (excluding noun clauses); Comparative (as (excluding temporal meanings), as ... as, as if, like); and Sentential (which, preposition + which, similar to adjective piped-piping clauses), e.g. He taught in an entertaining manner and was very interesting, which is [what I appreciate in a teacher], (NS).

Biber et al.’s (1999) analysis of English language corpora have shown that in academic prose, time clauses are employed at the rate of 0.1%, place clauses 0.05%, and manner, comparative, and sentential clauses are rarer still. Similarly, these types of clauses were not common in the texts of NS or NNS university students (Hinkel, 2002). Thus, due to their particularly low frequencies of use, they were counted and analyzed together.
Adverb clauses of time establish a deictical temporal connection between the time of the action/event in the subordinate and independent clauses. The time of the events can be successive and/or simultaneous, depending on the meaning of the subordinator and the tense and aspect in either clause (e.g. *When the class is very enjoyable and entertaining, some people can learn more than students who like a serious and formal environment.* (Korean)). In narratives and written expository prose, the order of actions and events relative to the overall temporal discourse frame and the time deixis in the subordinate, and the independent clause serves as one of the most common cohesive devices (Halliday and Hasan, 1976). Time clauses can be the locus of the more important action or event that occurs during the time frame specified in the independent clause, or vice versa (Quirk et al., 1985: 1080). Similar to time clauses, place clauses also provide a framework to locate the events or actions of either the subordinate or the independent clause along the locative deixis established in the context of narrative, explication, or exposition. However, unlike time clauses and adverbs of place, in academic texts, clauses of place are not very frequent (Biber et al., 1999; Halliday, 1994).

Clauses of comparison can be employed to establish similarities or dissimilarities that can be both real or hypothetical [e.g. *as if he was the boss* (NS)] and to construct analogies. Comparison structures may have a cohesive purpose when they are used to compare the information provided earlier in discourse (Halliday and Hasan, 1976). Despite the fact that these structures are far more common in conversations than in written or formal academic prose, comparisons and analogies are frequently encouraged in composition instruction as an explication device and recommended for clarification (Hacker, 1994; Leki, 1999; Lunsford, 2001). However, these types of constructions are relatively rare both in NS and NNS student academic essays (Hinkel, 1999).

Manner clauses are also seldom encountered (Biber et al., 1999: 787). They represent an ambiguous blend of comparative and attributive functions and meanings of adverbs, and they have the meaning of *how*. The markers of these clauses can be paraphrased by *in a (…) manner* or *in a (…) way* (Hoye, 1997; Quirk et al., 1985). Sentential clauses refer back to the predicate of or the entire independent clause. They are placed in post-modifying positions, after the independent clause, and a majority are indexed by the relative pronoun *which*, with or without a preposition. Although the relative pronoun *which* is characteristically associated with adjective clauses and its use in sentential clauses can considered to be irregular (Quirk et al., 1985: 1120), in recent years, sentential clauses have become more common, especially in casual conversations, e.g. *I didn’t want to talk to her, which she knew* (NS). It is important to note that the use of *which* in adverb clauses typically marks highly informal conversational register (Biber, 1988), and in some cases, it is still considered to be inappropriate in formal academic writing (Lunsford, 2001).

The results of the data analysis in this study show (see Table 4) that the rates of these types of adverb clauses combined did not differ substantially in the essays of NSs, and Japanese and Korean speakers. However, their median frequency rates in the essays of Chinese and Indonesian speakers (medians 0.91 and 0.71, respectively) significantly exceeded those in NS texts (median 0.46). As has been mentioned,
contextual meanings of time, place, and manner in Chinese and Indonesian are conveyed by means of different syntactic constructions and morphological elements than in Japanese and Korean, both of which rely on various adverbials and particles with temporal, locative, and manner functions.

3.2.6. Reduced adverb clauses

Reduced adverb clauses are recognizably syntactically and semantically complex, and a large majority of these constructions are used in formal written texts (Biber, 1988; Quirk, et al., 1985). In standardized tests of L2 proficiency (e.g. TOEFL), items that require recognition or manipulation of reduced adverb clauses are often considered to be an indirect indicator of advanced syntactic and lexical facility (Hamp-Lyons, 1991). Similarly, in textbooks for academically advanced ESL learners, reduced adverb clauses are recommended in order to demonstrate sophisticated language use and fluency (Leki, 1999). According to Biber et al. (1999: 826), these constructions are extremely rare in the conversational genre, and are less frequent in academic texts than in fiction. The academic essay texts of students, regardless of their L1s, did not contain many reduced clauses (see Table 4), and in the NNS prose (median 0.31), they were encountered in fewer than half of the essays in each group (medians 0.00 for all groups). Thus, significant differences are noted in NS and NNS uses of reduced clauses, however infrequent they were overall.

4. Conclusions

The median frequency rates of various types of single-word adverbs, adverb phrases, and adverb clauses in NS and NNS essay texts demonstrate several interesting patterns. In the texts of NSs and Chinese, Japanese, Korean, and Indonesian speakers, the rates of time adverbials were mostly similar, but adverbials of place were used significantly less frequently in the essays of Japanese and Korean speakers than in those of NSs. On the other hand, all NNSs, with the exception of Japanese speakers, employed significantly higher rates of manner adverbs. The greatest pronounced differences between the essays texts of NSs and those of NNS in all groups are identified in the frequency rates of amplifiers and emphatic adverbs, both of which are very common in informal conversations. The uses of these intensifiers were markedly more frequent in L2 essays, resulting in a colloquial and overstated tone in NNS academic argumentation and expository prose.

It is important to note that all NNSs whose essays were analyzed in this study were academically advanced and proficient L2 learners, who had received years of exposure to and instruction in L2 use in English language environments. These students were verifiably fluent L2 speakers, and, for instance, the average length of NNS essays in most groups exceeded that of NS compositions. Because for most NNS students the greatest amount of exposure to L2 usage takes place in conversational discourse, the frequency rates of adverb clause usage in L1 and L2 texts is determined by the frequency of a particular clause type in the conversational genre. That is, the more common certain types of adverb clauses in conversational
discourse, the greater the likelihood of their high frequency rates in L2 academic essays. For example, cause and condition clauses that are more frequent in informal speech were encountered at significantly greater frequencies in many NNS texts, compared to those of NSs. On the other hand, purpose and reduced adverb clauses that are relatively rare in conversations were employed at significantly lower frequencies in L2 than L1 essays. Concession clauses that have the textual function of semantically and syntactically complex hedging devices were seldom used in NS or NNS essays.

Another important consideration in NNS uses of adverbs and adverb clauses may be the transfer of their L1 syntactic and semantic properties to L2. With the exception of amplifiers, emphatics, and manner adverbs that were frequent in essays of most NNS, regardless of their L1s, it appears that Chinese speakers can benefit from additional instruction on the functions and uses of time adverbs, Japanese and Korean speakers from added attention to the textual functions of place adverbs, and Indonesian speakers from work on the functions of downtoners in academic texts. In regard to adverb clauses uses, because the Chinese, Japanese, Korean, and Indonesian languages, whose speakers wrote the essays, do not have parallel subordinate constructions per se but rather rely on suffixes, particles, and other types of markers, it seems that contextualized and discourse-oriented instruction is needed to deal specifically with the distinctions between conversational and formal written register. Indonesian speakers may require specific instruction when it comes to constructing overtly marked conditional clauses, while speakers of Chinese and Indonesian can benefit from a specific focus on clauses of time, place, manner, and comparison. In general, meanings and textual functions of adverbs and adverb clauses are often considered to be relatively semantically and syntactically straightforward in ESL grammar and composition teaching. However, even in the case of academically advanced and proficient NNS students, learning how to use these linguistic features in formal academic writing does not necessarily take place in the course of informal conversations and by means of mere exposure to the L2 spoken genre. In fact, it appears that NNSs indeed become fluent in L2 conversational discourse but continue to have a restricted repertoire of syntactic and lexical features common in the written academic genre.

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