Chinese ELF Learners' Acquisition of Modal Verbs: A Corpus-Based Study

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Abstract

By adopting a corpus-based approach, the study explores how Chinese EFL learners differ from native English speakers in the use of modal verbs in different genres. Results show that Chinese EFL learners significantly overuse modal verbs both in speaking and writing. In addition, their overuses of the high-value modal verbs of *must*, *should* and *have to* also achieve the significant level. However, Chinese EFL learners significantly underuse the low-value modal verbs of *would, might* and *could* in comparison with native English speakers. It is hypothesized that Chinese EFL learners' improper uses of modal verbs are caused by the negative transfer from Chinese, in which the meaning potentials of modal verbs are different from those in English.

Keywords: modal verbs, acquisition, spoken language, written language

1. Introduction

Modal verbs, as a key means to express modality, substantiate their users' attitudes to the propositions or events being described in the utterances, and thus the use of these words could be viewed as a facet of pragmatic competence (Leech, 1983). Interpersonally speaking, appropriate use of modal verbs can not only enhance the acceptability of the utterances by being more euphemistic and polite, but also strengthen the mood by being more authorarive and imperative. For these reasons, modal verbs have received numerous research in linguistics since 1970s. A large body of research has been carried out to explore the use of these verbs by native speakers of English (Major, 1974; Biber et al., 1999; Papafragou, 2000; Salsbury & Bardovi-Harlig, 2000), and some also investigated how non-native speakers acquire these words (Hu et al., 1982; Chang, 1987; Hinkel, 1995; Hyland & Milton 1997; Aijmer, 2002; McEnery & Kifle, 2002; Guo, 2005; Cheng & Qiu, 2007). However, it needs to be pointed out that most of the existing research only examines the use of modal verbs in writing. Few studies are designed to explore the use of modal verbs in the spoken genre, and even fewer research discusses how L2 learners differ from native speakers in the use of modal verbs. Taking these into consideration, this paper explores how Chinese EFL learners differ from native English speakers in the use of modal verbs in speaking and writing in the hope of providing some suggestions for the teaching of English to non-native speakers.

2. Literature Review

Modality is a major semantic manifestation of the interpersonal meta-function of language (Li, 2000). It is mainly instantiated or expressed by modal verbs, which convey its users' attitudes or views to the propositions being concerned. Thus, the use of modal verbs could serve as a good indicator of their users' mastery of modality. In this sense, it is of high value to examine the use of modal verbs by non-native English learners. Traditional grammar categorizes modal verbs into three groups by their semantic meanings, as in Table 1.

Table 1. Types of modal verbs in traditional grammar

Types	Modal verbs
obligation, necessity	must; should; need; ought; have to;
volition, predication	will; would; shall;
possibility, ability	can; could; may; might;

Functional Grammar (Halliday, 1994, p. 358) also categorizes modal verbs into three groups according to

probability, frequency, volition and obligation, as shown in Table 2.

Table 2. Types of modal verbs in functional grammar

Types	Modal verbs
High-value	must; ought; need; have to;
Middle-value	will; would; shall; should;
Low-value	may; might; can; could;

By comparison, the two typologies are in accordance with each other. Those modal verbs to express obligation and necessity coincide with the category of high-value modals; those to express possibility and ability equal to the category of low-value ones; with those modals to express volition and predication in between. The only inaccordance concerns with the modal verb *should*. It is termed as a middle-value modal verb in Functional Grammar, though it is believed to convey obligation in Traditional Grammar. Taking into consideration the fact that *should* is used to convey the meaning of being required or obliged to undertake an action, it is operationalized as a high-value modal verb in the present study.

In Leech's (1983) politeness scale, the use of different modal verbs affects the degrees of politeness. The higher the values of the modal verbs are, the more oppressive the utterances would be, thus less polite than those with lower value modals. In contrast, the lower the values of the modal verbs are, the more uncertain the users are about the propositions, thus more polite than those with higher value modals.

Modal verbs, thus, are not only a means to convey its users' attitudes, but also a tool to indicate politeness. Therefore, they have been extensively studied in the literature. Among those, Biber et al. (1999, pp. 486-490) reveal that native English speakers employ those modals quite differently in different genres: as a whole, modals verbs occur more frequently in speaking than in writing; such modal verbs as *can*, *will* and *could* are mainly used in speaking; while the modals of *may*, *must* and *would* tend to occur more frequently in writing.

Because different cultures have different social cultural norms, the modal verb systems in different cultures in turn vary from one to another (Hinkel, 1995), and it is inevitable for non-native speakers to negatively transfer the modal system in their L1 to the L2 system, thus resulting in interlanguage pragmatic errors. For example, Hu et al. (1982) find that Chinese EFL learners tend to choose such high-value modal verbs as *should* and *must*, while native speakers prefer the use of *had better* and *need* in making requests or advice. Similarly, some other scholars (Hyland & Milton, 1997; Yang, 1998; Wang, 2005) also reveal that Chinese EFL learners overuse such modal verbs as *can*, *may*, *should* and *have to*, while native speakers would choose *could*, *might* and *would* in similar contexts. Consequently, Wang (2005) and Cheng & Qiu (2007) claim that Chinese EFL learners tend to overuse modal verbs in writing, which reflect the learners' monotony in expressing modality (Hong & Yu, 2007).

Similar inappropriate use also exists among other Asian learners of English. For instance, Hinkel (1995) finds that English learners in Southeast Asia tend to overuse the high-value modals of *must*, *should*, *have to*, *ought to*, etc., which makes their utterances more oppressing than they are supposed to be.

Western learners of English might also utilize modal verbs inappropriately (Aijmer, 2002). Their choices, however, are quite different from Asian learners. Few research (McEnery & Kifle, 2002) finds that English learners in western countries (especially in Europe) tend to overuse middle-value modal verbs to highlight their uncertainty and implicitness, but they seldom choose high-value modals. Kasper (1979) claims that those learners literally translate the modal verbs in their mother tongues into the target language, without noticing the different implications entrenched by the modals in different languages, thus leading to pragmatic failures in cross-cultural communication. This inappropriate use, in consequence, is more likely to be viewed as impolite or even as offensive by native speakers (Altman, 1990). Therefore, there is a consensus that L2 learners of English encounter difficulties in the use of modal verbs.

It can be seen that non-native speakers differ, by and large, from native speakers in the use of modal verbs. However, these findings are mainly generated from written language. Though modal verbs occur quite differently in different genres (Biber et al., 1999), it is still unclear how modal verbs are used by L2 learners in speaking, and whether L2 learners use these verbs differently in different genres (i.e., speaking and writing). Taking these into consideration, the present paper is designed to explore how Chinese EFL learners use modal verbs in speaking and writing, and how they differ from native speakers of English in different genres.

3. Methodology

3.1 Research Questions

The study is designed to examine how non-native speakers differ in the use of modal verbs from native speakers of English in speaking and writing. Specifically, the study contains the following three research questions:

(1) How do Chinese EFL learners use modal verbs in different genres?

(2) How do native English speakers use modal verbs in different genres?

(3) How Chinese EFL learners differ from native English speakers in the use of modal verbs in different genres?

3.2 Data Source

In order to answer the above three questions, two corpora were analyzed. The native English speakers' data were taken from The British National Corpus (BNC for short hereafter), and the Chinese English learners' data were from The Spoken and Written English Corpus of Chinese Learners (SWECCL for short). Around 1 million tokens of each genre (i.e., spoken and written) were randomly selected from each corpus, as indicated in Table 3.

Table 3. Description of the data

Corpus	Genre	Data Size
SWECCL	Speaking	1, 261, 139
	Writing	1, 008, 608
BNC	Speaking	1, 694, 445
	Writing	1, 281, 793

4. Results

4.1 Chinese EFL Learners' Use of Modal Verbs

It can be seen from Table 4 that Chinese EFL learners in general use more, though not significantly, modal verbs in writing than in speaking (229 vs. 293, χ^2=2.350, p=0.125). As to the modals of different types, only Chinese EFL learners' use of low-value modals in writing is significantly higher than that in speaking (106 vs. 145, χ^2=6.060, p =0.014), though the other two types are also higher in writing than in speaking. In another terrain, it can be also concluded that either in speaking or in writing Chinese EFL learners use low-value modals the most, and the middle-value modals the least. As for specific modals, Chinese EFL learners tend to significantly overuse *ought* in writing than in speaking, while no such traits are found among other modal verbs.

As a whole, Chinese EFL learners use more *can*, *will*, *should* and *must* both in speaking and in writing, but the use of *ought*, *shall* and *might* are much less used by Chinese EFL learners. In terms of genres, it can be seen that Chinese learners tend to use *should*, *need*, *will*, *would*, *can* and *may* in writing, while in speaking they tend to choose *must*, *have to*, *shall* and *could*.

Table 4. The use of modal verbs by Chinese EFL learners

Types	Modal	Speaking RF	SF	Writing RF	SF	χ^2	p
Hight-value	must	2039	16	1427	14	0.133	0.715
	should	3994	32	4462	44	1.895	0.169
	need	623	5	1251	12	2.882	0.090
	ought	10	0.08	60	0.6	63261.557	0.000**
	have to	1294	10	854	8	0.222	0.637
	SUM	7960	66	8054	79	1.803	0.179
Middle-value	will	6040	48	5584	55	0.476	0.490
	would	1357	11	1372	14	0.360	0.594
	shall	96	0.8	62	0.6	.000	1.000
	SUM	7493	59	7018	70	0.769	0.380
Low-value	can	10943	87	11330	112	3.141	0.076
	could	1413	11	966	10	0.048	0.827
	may	883	7	2231	22	7.759	0.050
	might	175	1	151	1	0.000	1.000
	SUM	13414	106	14678	145	6.060	0.014*
TOTAL		28867	229	29750	293	2.350	0.125

Note. RF = Raw Frequency; SF = Standardized Frequency (per 10, 000 words). * < 0.05; ** < 0.01.

To conclude, Chinese EFL learners use more modal verbs in writing than in speaking, and the use of high-, middle- and low-value modal verbs are also respectively higher in writing than in speaking, though only the overuse of low-value modals reaches the significant level. Generally speaking, Chinese EFL learners use low-value modals the most, while the middle-value modals the least. In addition, the modals of *should*, *need*, ought, *will*, *would*, *can* and *may* are mainly used in writing, and *must*, *have to*, *shall* and *could* are mainly used in speaking.

4.2 Native English Speakers' Use of Modal Verbs

From Table 5, it can be seen that native English speakers significantly overuse modal verbs in speaking than in writing (172 vs. 128, χ^2=6.453, *p*=0.011). In terms of values, native English speakers use high-value modals the least either in speaking or in writing, while they use low-value modals the most in speaking and the middle-value modals the most in writing. Though native English speakers used all the three types of high-, middle- and low-value modals more frequently in speaking than in writing, only the use of low-value modals reaches the significantly level (80 vs. 48, χ^2=8.000, *p*=0.005). In addition, native English speakers tend to use *can*, *should*, *need*, *ought*, *would*, *shall*, *could* and *might* in speaking, while such modals as *must*, *will* and *may* occur more frequently in writing.

Table 5. The use of modal verbs by native English speakers

Types	Modal	Speaking		Writing		χ^2	*p*
		RF	SF	RF	SF		
High-value	must	755	4	610	5	0.111	0.739
	should	1902	11	1142	9	0.200	0.655
	need	1688	10	592	5	1.667	0.197
	ought	261	2	64	0.5	0.333	0.564
	have to	2283	6	766	6	0.000	1.000
	SUM	6889	33	3174	26	0.831	0.362
Middle-value	will	3712	22	3807	30	1.231	0.267
	would	5969	35	3114	24	2.051	0.152
	shall	284	2	94	0.7	0.333	0.564
	SUM	9965	59	7015	54	0.140	0.708
Low-value	can	7858	46	2164	17	13.349	0.000**
	could	3062	18	1886	15	0.273	0.602
	may	1112	7	1458	11	0.889	0.346
	might	1585	9	675	5	1.143	0.285
	SUM	13617	80	6183	48	8.000	0.005**
TOTAL		30471	172	16372	128	6.453	0.011*

Note. * < 0.05; ** < 0.01.

It can be concluded that native English speakers mainly use modal verbs in speaking, and they disprefer the use of modal verbs in writing partly due to the subjectivity conveyed by these verbs. In addition, native English speakers use low-value modals the most in speaking, while they use middle-value modals the most frequently in writing. However, either in speaking or in writing native English speakers use high-value modals the least. In terms of specific verbs, the modal verbs of *can*, *should*, *need*, *ought*, *would*, *shall*, *could* and *might* are more speaking-oriented, but the modals of *must*, *will* and *may* are more writing-oriented.

4.3 The Comparison on the Use of Modal Verbs between Chinese EFL Learners and Native English Speakers

4.3.1 The Comparison of Modal Verbs in Speaking

Table 6 indicates that Chinese EFL learners significantly overuse modal verbs in speaking than native speakers (229 vs. 172, χ^2=8.102, *p*=0.004). As to modals of different values, Chinese EFL learners overuse all the three types of modal verbs in comparison to native English speakers, but only the overuse of high-value modals reaches the significant level (63 vs. 33, χ^2=9.375, *p*=0.002). For specific words, Chinese EFL learners significantly overuse such modals as *must*, *should*, *will* and *can*, but they significantly underuse *would* and *might* in speaking.

Table 6. The use of modal verbs in speaking by Chinese EFL learners and native English speakers

Type	Modal	Chinese Learners		Native Speakers		χ^2	p
		RF	SF	RF	SF		
High-value	must	2039	16	755	4	7.200	0.008**
	should	3994	32	1902	11	10.256	0.002**
	need	623	5	1688	10	1.667	0.197
	ought	10	0.08	261	2	166.747	0.000**
	have to	1294	10	2283	6	1.000	0.317
	SUM	7910	63	6889	33	9.375	0.002**
Middle-value	will	6040	48	3712	22	9.657	0.002**
	would	1357	11	5969	35	12.522	0.000**
	shall	96	0.8	284	2	0.333	0.564
	SUM	7493	59	9965	59	0.008	0.927
Low-value	can	10943	87	7858	46	12.639	0.000**
	could	1413	11	3062	18	1.690	0.194
	may	883	7	1112	7	2.001	0.157
	might	175	1	1585	9	6.400	0.011*
	SUM	13414	106	13617	80	3.634	0.057
TOTAL		28867	229	30471	172	8.102	0.004**

Note. * P < 0.05; ** P < 0.01.

4.3.2 The Comparison of Modal Verbs in Writing

In writing (Table 7), Chinese EFL learners use more modal verbs than native English speakers, and the difference has reached the significant level (293 vs. 128, χ^2=64.667, p=0.000). As to the types, Chinese EFL learners significantly overuse high-value (78 vs. 25, χ^2=26.752, p=0.000) and low-value modals (145 vs. 48, χ^2=48.751, p=0.000) in writing than native English speakers. Specifically, Chinese EFL learners significantly overuse *must*, *should*, *will* and *can* in writing in comparison to native English speakers, while they tend to underuse (though not significantly) such modals as *would*, *shall*, *could* and *might*.

Table 7. The use of modal verbs in writing by Chinese EFL learners and native English speakers

Type	Modal	Chinese Learners		Native Speakers		χ^2	p
		RF	SF	RF	SF		
High-value	must	1427	14	610	5	4.263	0.039*
	should	4462	44	1142	9	23.113	0.000**
	need	1251	12	592	5	2.882	0.090
	ought	60	0.6	64	0.5	0.000	1.000
	have to	854	8	766	6	0.286	0.593
	SUM	8054	78	3174	25	26.752	0.000 **
Middle-value	will	5584	55	3807	30	7.353	0.007**
	would	1372	14	3114	24	2.632	0.105
	shall	62	0.6	94	0.7	0.000	1.000
	SUM	7018	70	7015	55	1.800	0.180
Low-value	can	11330	112	2164	17	69.961	0.000**
	could	966	10	1886	15	1.000	0.317
	may	2231	22	1458	11	3.667	0.056
	might	151	1	675	5	2.667	0.102
	SUM	14678	145	6183	48	48.751	0.000**
TOTAL		29750	293	16372	128	64.667	0.000**

Note. * P < 0.05; ** P < 0.01.

Thus, it can be concluded that Chinese EFL learners tend to overuse modal verbs in writing than native English speakers do, either in total frequency, different types, or in specific words like *must*, *shall*, *will* and *can*.

5. Discussion

After a corpus-based analysis of how Chinese EFL learners and native English speakers use modal verbs, the study arrives at the following conclusions:

(1) Native English speakers use significantly more modal verbs in speaking than in writing, which indicates the

speaking-oriented feature of modal verbs. Chinese EFL learners, however, do not distinguish the use of modal verbs in different genres. This shows that Chinese EFL learners have a lower degree of genre awareness, as illustrated in Wen et al. (2003).

(2) Native English speakers tend to use *can*, *should*, *need*, *ought*, *would*, *shall*, *could* and *might* in speaking, while such modals as *must*, *will* and *may* mainly occur in writing. As for Chinese EFL learners, they mainly use *must*, *have to*, *shall* and *could* in speaking, and in writing they prefer to use *should*, *need*, *will*, *would*, *can* and *may*. In comparison, Chinese EFL learners mistakenly employ *should*, *would*, *can* and *will* in writing, which are mainly used in speaking by native speakers. In addition, the modal *must* has a strong tendency to be used in writing, but Chinese EFL learners mainly use it in speaking. This, again, reveals Chinese EFL learners' low awareness of genre knowledge.

(3) In comparison with native English speakers, Chinese EFL learners significantly overuse high-value modal verbs in speaking in general, and such significant overuse also exist among *must*, *should*, *will* and *can*. However, Chinese EFL learners significantly underuse *would* and *might* in speaking. In writing, Chinese EFL learners significantly overuse high-value and low-value modal verbs in general, and the modal verbs of *must*, *should*, *will* and *can* in particular. That is to say, Chinese EFL learners significantly overuse high-value modals either in speaking or writing, with *must* and *should* in particular. The overuse of high-value modals, most probably, makes the utterances more impolite and offensive (Altman, 1990). In similar situations, native English speakers tend to choose *need* so as to highlight responsibility (Zheng, 1999), or they might use semi-modals like *have to*, *be going to,* and *used to*.

6. Conclusion

Based on a corpus analysis, the study examines the use of modal verbs by Chinese EFL learners and native English speakers. It further verifies the claim that there are many features of spoken language in L2 writing, which has been pointed out by Cobb (2003) and Wen et al. (2003). Another key feature of Chinese EFL learners' overuse of high-value modal verbs, which might cause their utterances less polite and more imposing. It is believed this overuse might be caused by the L1 transfer, in which the semantic meanings or semantic prosodies of modal verbs differ from one language to another. For example, the counterpart of *should* is *yinggai* (应该) in Chinese. However, *should* in English entails a sense of duty or responsibility, while in Chinese it can also convey a sense of advice. If Chinese EFL learners transfer the meaning of providing advice from Chinese to English, errors will occur. In this sense, it is strongly advisable to present to students the nuanced differences of modal verbs in different languages so as to reduce negative transfers from L1 to L2.

Acknowledgement

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