HOW BRAZILIAN LEARNERS EXPRESS MODALITY IN THEIR WRITING: A CORPUS-BASED STUDY ON LEXICAL BUNDLES

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RESUMO: Com base no arcabouço teórico sobre modalidade da sintaxe descritiva (DOWNING; LOCKE, 2006), este trabalho analisou um corpus de aprendizes – Corpus de Aprendizes Brasileiros do Inglês (CABrI), em comparação com o Louvain Corpus of Native English Essay (LOCNESS). A análise revelou a prevalência dos modais epistêmicos em ambos os corpora, havendo diferenças na expressão desse tipo de modalidade. No corpus de não-nativos, houve maior variedade de itens modais verbais, enquanto no corpus de nativos houve uma prevalência de advérbios com sentido modalizador. Este estudo pode contribuir para a área emergente de corpora e para a área da sintaxe.

PALAVRAS-CHAVE: corpora de aprendizes; modalidade; sintaxe

ABSTRACT: Based on the theoretical framework of descriptive syntax (DOWNING; LOCKE, 2006), this study analyzed a learner corpus - Corpus of Brazilian Learners of English (CABrI), compared with the Louvain Corpus of Native English Essay (LOCNESS). The analysis revealed the predominance of epistemic modals in both corpora, with differences in the expression of this type of modality. In the corpus of non-native speakers, there was a greater variety of modal verb items, whereas in the corpus of native speakers there was a predominance of adverbs with modalizing meanings. This study may contribute to the emerging area of corpora and syntax.

KEY-WORDS: learner corpora; modality; syntax
0. Introduction

Corpus-based studies on learners’ production of written discourse have caught the attention of many researchers from different domains. Despite the difficulties in compiling and analysing students’ production, recent findings have contributed to the understanding of their interlanguage by identifying linguistic features that are prevalent in their discourse (BERBER-SARDINHA, 20089; DUTRA, 2009, in Brazil). In this paper, we analyse a learners' corpus aiming at identifying how Brazilian learners of English express stance and attitude by employing modality items in their academic writing. We shall compare their production to that of native speakers of English in the same setting, that is, in the academic writing scenario. In order to do so, two corpora were analyzed: CABrI - Corpus of Brazilian English Learners, in construction (BERBER-SARDINHA, 2001; DUTRA, 2009), and LOCNES - Louvain Corpus of Native English Essays (Granger et al, 2009), our reference corpus. We believe that such an approach to the study of modality in English can contribute to the emerging area of corpora and syntax. In order to begin this task, let us first outline the theoretical framework we use in this paper, based on descriptive syntax analysis and corpora studies.

Modality has been studied by many researchers from different perspectives. Following the Hallidayan (2004) model, modality conveys stance and attitude of the sender of a message. Interpersonal meaning, then, plays an important role in relation to the topic in this study, which proposes to investigate how Brazilian learners of English express modality in the production of academic essays.

From a pedagogical view, research like the one conducted by Holmes (1998) has shown that teacher materials, in general, under-represent the use of modality in English, since this grammatical category is often dealt with through the restricted presentation of modal verbs. The present study argues along the same lines, as it also shows that students seem to heavily rely on modal verbs instead of other forms of modality that are also present in the native speaker’s corpus. The main aim of this research is to identify the most common forms of modality found in learners' essays so that we may have an account of their production in terms of how they express stance and attitude through modality. The structure of this paper is as follows: introduction, literature review and theoretical framework, analysis, and conclusion.

1. Literature Review

Mood and modality express the speaker's attitude or opinion regarding the proposition of a clause (PALMER, 1986). According to this author, mood is realized by the verbal morphology, whereas modality is a linguistic feature generated by a variety of linguistic phenomena, as described by Downing...
and Locke (2006), among which modal verbs play a central role. Modality is
to be understood as a grammatical category that covers notions such as
possibility, probability, necessity, volition, obligation and permission.

Therefore, modality can be connected to basic logical meanings,
generating a few types: (a) epistemic modality, (b) deontic modality and (c)
dynamic modality (DOWNING and LOCKE, 2006; HUDDLESTON and PULLUM,
2002; CARTER and MCCARTHY, 2006). The first two meanings, (a) epistemic
and (b) deontic, are the central ones.

Epistemic modality comprises the various degrees of
certainty/uncertainty about facts and therefore is related to the limitations
on the speaker's knowledge about these same facts. Consequently, epistemic
modality expresses meanings related to inference, prediction, expectation
and probability (BIBER, 1999; DOWNING and LOCKE, 2006). Examples of
epistemic modality are illustrated below:

(1) It might rain tomorrow.
   I suppose she did it by herself.
   It’s very unlikely that they will accept our offer.

Deontic modality, on the other hand, expresses meanings related to
permission and obligation of various kinds, ranging from very strong
obligation to more mild ones. Deontic modality is, therefore, very often
associated with authority and judgment, rather than with knowledge or
prediction, as it happens with epistemic modality. For this reason, deontic
modality is a language resource used to influence people to do (or not to do)
things, whereas epistemic modality is used to predict what speakers think is
likely to happen.

Epistemic and deontic meanings can be associated with the same
modal expression. For example, a modal verb can express both deontic and
epistemic meanings, depending on the context given.

(2) It must have been him. (epistemic)
   You must leave now. (deontic)

Additionally, on many occasions, modality meanings may be rather
ambiguous, allowing either interpretation. This is the case of the example
below, in which must can express either the epistemic meaning of prediction
or possibility (contextualized as: I assume you are patient/she likes it, given
certain evidences) or the deontic meaning of obligation or necessity
(contextualized as: there is a need for you to be very patient/there is a need
for her to like it, according to my understanding of the situation).
(3) **You must be very patient.**
   
   She must like it.

Although modality is centrally related to epistemic or deontic meanings, as we have stated, there are also other kinds of meanings associated with modality, all of them, however, play a more peripheral role in syntax analysis and are grouped under the label: dynamic.

These dynamic meanings are described as ability and courage (Downing and Locke, 2006) and ability, volition and courage (Huddleston and Pullum, 2002). They are often expressed by modal verbs like *can* and *will* and by semi-modals like *dare*. In this regard, according to Downing and Locke (2006), *dare* is actually the only semi-modal that is used only in the dynamic expression of modality.

Some examples of dynamic modality are displayed below:

(4) **I can speak Spanish.** (ability)
   
   She wants me to go, but I won't. (volition)
   
   I daren't say this. (courage)

In certain cases, we can interpret an occurrence both as dynamic and epistemic at the same time, since both types of meanings can be identified:

(5) **You can't be right.** (probability and/or ability)
   
   She can play the piano. (possibility and/or ability)
   
   I can speak four languages (possibility and/or ability)

There are authors that group modality meanings differently. Biber (1999) identifies three categories of modal verbs: (a) permission/possibility/ability (*can, could, may, might*), (b) obligation/necessity (*must, should, (had) better, have (got) to, need to, ought to, be supposed to*) and (c) volition/prediction (*will, would, shall, be going to*). This categorization does not correspond exactly to the distinction deontic/epistemic adopted in this work.

Modality also conveys meanings related to the concept of remoteness, illustrated in the examples below, in which the various degrees of remoteness imply a distinction between two kinds of conditional construction *open vs. remote*, as stated by Huddleston and Pullum (2002).
We now present a broad picture on the realizations of modality in the English Language.

At this point, it is important to focus on the distinctions among the terms modal, mood and modality. Modality is the most general term for this grammatical category in focus. It refers to a basic distinction of realis and irrealis meanings (PALMER, 2001). Mood would refer to the traditional system composed of the categories indicative, subjunctive and imperative, characterized by morphological inflexion on the verbal group (VG). The mood system, therefore, expresses modality. Indicative is the mood of certainty, expressing, the realis meaning. Subjunctive, contrarily, is a morphological indication of irrealis, expressing doubt, possibility, uncertainty. Imperative, considering its imposition of a demand on the listener, is also irrealis in essence, since there is no assertion on the part of the speaker of the realization or effective occurrence of the event expressed in the proposition (TENUTA, 1992; 2006). Modal, by its turn, is the term used to refer to a set of auxiliary verbs, very frequent in the English language, that also expresses, in its variety, a profusion of nuances of irrealis content. Therefore, mood and modals are linguistic resources, of different kinds, for the expression of all types of modality. And these two resources are not the only ones.

Modality meanings may be reached, through different forms composing the VG: mood inflexions, modal auxiliaries, semi-modals, lexical auxiliaries, phased structures, lexical verbs. Modality meanings may also be found elsewhere in the clause, in elements such as adverbials, predicate adjectives and certain nouns.¹ These expressions are presented below (DOWNING and LOCKE, 2006):

When expressed in the VG, modality can be realized by:

(a) modal verbs: may, might, should, must, can, would, will, ought to, shall, could, need;
(b) semi-modals (modals in certain uses): need, dare, wish;
(c) lexical auxiliaries (chain-like structures with primary verbs be and have): be able to, be apt to, be due to, be going to, be liable to, be

¹ Broadly speaking, irrealis can also be expressed through still other resources, such as, negative structures, interrogative structures, discourse markers (especially in oral language) showing little commitment of the speaker in relation to the realization of the content of his/her speech (TENUTA, 1992, 2006).
likely to, be certain to, be sure to, be to, be unlikely to, be supposed to, have to, have got to, had better, would rather, would sooner;  

(d) phased structures composed of a catenative verb, such as need, want, regret, try, manage, hesitate, happen, chance, tend, seem, appear, pretend, followed by a verb in the infinitive form;  

(e) subjunctive forms in embedded clauses, introduced by verbs such as: expect, suppose, recommend, require, request, suspect, intend, think, guess, assume.  

(f) lexical verbs such as allow, beg, command, forbid, guarantee, guess, promise, suggest, warn;  

(g) imperative forms;  

(h) past tense to indicate remoteness from reality, as in I thought I’d go along with you, if you don’t mind and  

(i) conditional structures, as in If you went, I would go too.  

Modality expressed elsewhere in the clause, may be found in:  

(j) adverb and sentence modifiers: maybe, supposedly, perhaps, possibly;  

(k) predicate adjectives: possible, impossible, likely, conceivable, doubtful, certain, sure, positive and  

(l) nouns such as possibility, probability, chance, likelihood.  

Modality can also be expressed at different points throughout the clause, concomitantly. Downing and Locke (2006) refer to this realization as modal harmony. According to them, modal harmony can be illustrated with the following example:  

(7) I’m sure she couldn’t possibly have said that.  

The categories proposed by different authors in relation to morphosyntactic realizations of modality, nevertheless, may not correspond exactly to those just related. From the perspective of the Longman Student Grammar of Spoken and Written English, a corpus-based grammar (BIBER, 1999), modals are divided into three groups, namely, 'modals', 'marginal auxiliary verbs' and 'semi-modals'. The first group encompasses can, could, may, might, shall, should, will, would and must. These modals have a number of specific features such as (a) being invariant forms, (b) preceding the subject in yes-no questions and (c) being followed by a verb in the bare infinitive. Marginal auxiliary verbs correspond to need (to), ought to, dare (to) and used to. According to Biber (1999), these kinds of verbs are rare and occur almost only in British English. Fixed idiomatic phrases as (had) better, have to, (have) got to, be supposed to and being going to are called
semi-modals by Biber (1999). Semi-modals differ from central modals because they can be marked for both tense and person. Besides, they can also occur as non-finite forms.

2. Data and Methodology

This study comprises two corpora, as already mentioned: a sub-corpus taken from Corpus of Brazilians Learners of English (CABrI) and another sub-corpus taken from Louvain Corpus of Native English Essays (LOCNESS). CABrI is composed of academic essays written by advanced students from the Liberal Arts course at Universidade Federal de Minas Gerais. At the present moment, CABrI contains around 36,187. Louvain Corpus of Native English Essays presents essays written by American and British speakers, ranging from academic to literary texts. The texts chosen to compose the sub-corpus belong to the American argumentative section. In total, the LOCNESS sub-corpus used in this study contains 60,241 words.

Both corpora present differences and similarities concerning the expression of modality that, with the aid of corpus methodological tools, were the core of our analysis.

For this analysis, first, word lists were generated and modal verbs were isolated. This procedure, according to O'Keeffe, McCarthy & Carter (2007), proves to be essential to identify the core vocabulary of English for pedagogical purposes, which is one of the aims of this study. Comparing frequency lists is, then, an essential starting point; however, only relying on frequency lists would not be sufficient. For that reason, in order to get a better notion of the pragmatic function of modals in the essays under investigation, lexical bundle lists were analyzed and items occurring more than five times were selected for investigation. After identifying the most common items, concordance lines were analyzed so that the modals could be observed in their particular contexts. It is believed that such an optimal approach generates concise results.

3. Analysis

As a starting point, we looked at the most frequent modal verbs in both corpora. Table 1 below describes our findings.

<table>
<thead>
<tr>
<th>Modals</th>
<th>CABrI</th>
<th>LOCNESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>can</td>
<td>346</td>
<td>246</td>
</tr>
<tr>
<td>will</td>
<td>229</td>
<td>258</td>
</tr>
<tr>
<td>should</td>
<td>114</td>
<td>197</td>
</tr>
<tr>
<td>could</td>
<td>78</td>
<td>180</td>
</tr>
<tr>
<td>would</td>
<td>77</td>
<td>425</td>
</tr>
</tbody>
</table>
This preliminary analysis demonstrates that both corpora differ in terms of the frequency of these modal verbs. For example, the modal verb *would* is more frequent in LOCNESS than in the learners’ corpus. Actually, *would* is the least used by CABrI subjects. This finding drew our attention to the remarkable differences that can be found when we compare learners' to native speakers' production. In order to investigate this further, trying to explain these differences, we will rely on the bundles analysis.

As highlighted by O'Keeffe, McCarthy and Carter (2007), one of the benefits of looking at lexical bundles is the fact that they allow us a better view of the discourse under scrutiny. This means that, when looking at bundles, one moves from an analysis on the level of the sentence to an investigation based on broader aspects of discourse, which, consequently, means an investigation of language in use. Having this in mind, we concentrated on the lexical bundles from the corpora. In total, we found 22 bundles in the learners' corpus. This amount represents the bundles occurring more than 5 times in the entire corpus, which was the cut-off point established by the researchers, following Berber-Sardinha (2001). However, this present study will only concentrate on 5 bundles due to their relevance to the main objective of this research, which is to describe the most frequent bundles with modal verbs in learners’ production of academic English. In order to enhance the analysis, we will compare data from the learners' corpus to data from the native speakers' corpus (LOCNESS). The items that are under analysis are:
Learners' corpus – CAbRI, in comparison to native speakers' corpus - LOCNESS

In this section, we will concentrate on the lexical bundles that proved to be relevant in both corpora. The analysis will focus not only on frequency, but also on the prominent aspects of each bundle as they occur in the corpora.

Bundles with modal can

a - we cannot

In all examples, learners are using we cannot when they want to express a more general idea. The pronoun we refers to a group of people who share the same idea or perspective relative to a particular subject. In addition, this expression appears in the concluding section of the essay, which reinforces the claim that writers are using this bundle to make an overall statement at the end of their writing.

b - can be seen

In contrast, to the use of can, writers in LOCNESS seem to prefer a more complex structure. Observing the bundles list, we find that can be seen is the most prevalent bundle in the native speakers’ corpus. This confirms the hypothesis that native speakers tend to use more complex structures, which, many times, characterize the text genre, such as the use of passive voice in academic essays. Learners seem to have difficulties in conforming to this genre characteristic; consequently, when comparing their essays to the ones written by native users of English, this relevant distinction can be observed. In Extracts 1 and 2 below, we can see the most frequent bundles with the modal can in each corpus.

(8) Extract 1 (LOCNESS)
The problem facing the Monarchy is how to adapt to modern life whilst still retaining a traditional role. The pressures can be seen with the growing question of whether the Prince of Wales may rule as king when being a divorcee. This brings up the issue of him being the Head of the Church of England and so the
main problems lie in discussions about the future rather than the present. Also, their role in society is a matter of debate: are they there in order to just open hospitals and wave to people? This is the image often seen by the normal subject, discounting of course the scandals within the newspapers.

(9) Extract 2 (CABrI)
Televisions are necessary, they provide an excellent form of leisure providing instant information and great accessibility beyond our imagination in the past; but we need to be conscious that it has intentions, it has interests and we cannot be their hostages. It is necessary to be more critical about TV shows, analyzing their point of view and discussing it, not accepting without reflection.

These two extracts illustrate the claim that learners of English use less complex structures and less vocabulary variation. For example, in Extract 1, written by a native speaker of English, the modal can is part of a passive voice structure, being passive constructions typical of the genre. Conversely, in the non-native speaker production (Extract 2), the use of the modal integrates a verbal group in a compound sentence. This structure is less complex than the one observed in the production of the native speaker. Academic essays demand more elaborated syntactic structures, due to the fact that they represent a more formal type of text register, and the non-native speakers' production analyzed in this paper shows less compliance with this requirement.

Bundle with modal would

It would be

As previously observed in Fig.1, the modal verb would is the least used by learners. When analyzing bundles in the learners’ corpus, we could not find a relevant number of this modal. However, in both corpora, writers use lexical bundles with would when they wish to speculate about future possibilities in a more formal way. They express stance by using this modal verb in order to avoid committing themselves with the truth of their proposition. Learners mitigate their arguments using expressions that would save their faces (BROWN & LEVINSON, 1987). Extract 3 below illustrates the use of several modal expressions in combination (would, certainly, will, probably and should). This clustering of modals in one extract is representative of the way modality is used in English, including the use of modal harmony (DOWNING & LOCKE, 2006) to express attitude. Extracts 3 and 4 below illustrate the use of it would be.

(10) Extract 3 (CABrI)
In conclusion, it would be certainly a lack of maturity to deny the importance of theory in academic courses as a basis for the formation of its professionals, since
the university is definitely the place for them to have a contact with the references (authors, books, concepts, etc) that will probably help them throughout their careers whatever area they come to work in. However, in my opinion universities should adjust their curriculums in order to prepare well students to the market, moreover not to submit themselves anymore to study for long years only for the purpose of getting a degree – in the sense of a symbolic title required for the market - but for being eager to live somehow necessary experiences before graduating.

(11) Extract 4 (LOCNESS)

It would be very hard to imagine a Britain without Beef but not so hard to imagine causes that may yet bring it about. For example there has been a constant stream of scares about BSE and CJD, (croytstelt Jacob Disease), so many in fact that much of the public has become blasé about such 'scientific' reports.

In both corpora the bundle is used with the same syntactic and discursive function.

Modal should

Hitherto, the most frequent use of modals had been to express epistemic modality, however, the observation of should led to two relevant findings. First, this modal verb was used in both corpora to express deontic modality, not epistemic. Secondly, when analyzing bundles with should in LOCNESS, it is observed that they are usually followed by a passive construction, as can be seen in the following concordance lines. A certain occurrence of passive construction is indeed typical of the genre in focus.

<table>
<thead>
<tr>
<th>N Concordance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 responsibility to act like a normal human being but should not be blamed for any misuse of thier final</td>
</tr>
<tr>
<td>2 Genetic manipulation should not be used to change normal humans into</td>
</tr>
<tr>
<td>3 believe that boxing is a blood-thirsty sport, and it should not be allowed in modern society.</td>
</tr>
<tr>
<td>4 or, the sex of a child that has been conceived should not be revealed to the parents expect in the</td>
</tr>
<tr>
<td>5 Another reason why it should not be banned is because foxes give chickens</td>
</tr>
<tr>
<td>6 had no child of their own but I personally feel that it should not be allowed as it does not only seem</td>
</tr>
<tr>
<td>7 Boxing, because it is a big money business, should not be banned because it would affect not</td>
</tr>
</tbody>
</table>

The use of should (not) found in the concordance lines above, belong to the deontic type of modality, therefore, they indicate necessity to change reality according to the writer's demands or expectations. From the point of view of syntactic complexity, should (not), in the native corpora, is followed by a passive voice form, as can be seen in the concordance lines just displayed. However, while observing concordance lines with the same bundle in the learners' corpus, we found that this use is significantly lower: 22%,
while in the native corpus the use of this modal in combination with the passive voice is 82% of the total of occurrences.

Extracts 5 and 6 show examples of the use of *should* followed by passive voice in both corpora analyzed.

(12) Extract 5 (CABrI)
Theory and practical *should be* connected, but, unfortunately, they are becoming more and more distant. Giving theoretical courses instead of theoretical and practical ones is more convenient for universities. It saves money, time and spares them the hard work. However, a practical formation would turn the students into qualified professionals by the moment they leave university before even having a first job.

(13) Extract 6 (LOCNESS)
Technology has progressed quickly and in doing so ethics and practical guidelines have been left behind. I therefore think it is necessary to have certain regulations ie.1. Fertility treatment *should* not be given to post-menopausal women. The menopause is the body's way of telling you that you are to old and your body is no long capable of bearing a baby. Last year there was a case of a post menopausal woman who by lying about her age was given in vitro fertilisation (IVF). I don't think this is fair or morally correct to the child since her mother would be claiming her pension when she was at primary school and her mother would probably die while the child was in her teens....

Modal *could*

Although *could* appears to be a frequent modal verb in the production of both learners and native speakers, the analysis carried out in this paper showed that, when bundles are investigated, *could* loses its importance, since we could not find more than 2-word bundles in CaBrI. Thus, for the purpose of this paper, we do not take an in depth analysis of the modal *could*.

Modal *will*

When analyzing the bundles, we find that, in LOCNESS, *there will be* is prevalent in the texts observed. Whereas, in the learners' corpus, the most common bundle is *this essay will*, most of the times, found in the introduction phase of the essays under investigation. This can be an evidence of the kind of instruction non-native speakers receive concerning essay structure in English, which leads to the presence, in their work, of more fixed discourse patterns. We can hypothesize that, when analyzing the production of learners, we might witness the emergence of new bundles characteristic of learners' language that will not be found in native speakers' production, since
these productions will not be influenced by formal language instruction in the same way.

4. Conclusion

In this study, we have concentrated on the most frequent bundles found in two corpora: CABrI and LOCNESS. First, we observed that, regarding the use of the modal can, in the learners’ corpus, the most frequent bundle found was we cannot. This indicates that students tend to use this item to make overall statements in the conclusion section of their essay. Conversely, the most frequent bundle chosen by writers in LOCNESS is can be seen, which shows a higher level of complexity in native speakers’ production, which is expected in academic writing.

While analyzing bundles with would, we found that the expression it would be plays an important role in LOCNESS, since it allows writers to avoid commitment with the truth of their statements. Learners seem not to be familiar with this pragmatic strategy, which is evident in their restrict choice of modal items.

The prevalent use of the fixed expression this essay will reinforces the claim that learners’ repertoire is relatively more rigid and is influenced by the input these speakers receive.

Corpora analysis can reveal the main characteristics of the discourse produced by the members of a specific group. In the case of learners, the presence of linguistic items that are usually part of the instruction they receive will definitely be prominent in the production they realize, and, consequently, will show up under analysis.

However, when observing native users of the English language, we found that they use a more varied expression of modality, including elements that do not appear, in the same way, in the repertoire of the learners' group we investigated. This last observation is particularly important for materials development, in the sense that these materials could, most beneficially, address these differences from a pedagogical perspective. For example, the usage of the passive voice combined with modal constructions needs to be stimulated in the teaching of academic writing. These grammar topics should be taught integrated, and not in isolation, as it seems to have been the case with these learners whose production we investigated. The integrated pedagogical approach to grammar and academic writing we propose here could make learners become more aware of the requirements of the academic genre which include, as we have found in this study, the use of modal verbs and passive voice in combination.

Broadly speaking, we believe that descriptive studies based on learners' production can inform teachers' practice and, consequently, enhance learners’ output. Also, this analytical perspective to teaching promotes consciousness of the functioning of the language as an integrated
system. This is mostly beneficial to language professionals (teachers, researchers, translators, etc.), in general, and to professionals of the English language, more specifically.

This study can be source for the development of material bridging the gap between language use and the potentiality for the expression of attitude through modality. As further future gains of this research, we believe there may be an impact on the field of English language teaching for academic purposes, such as academic writing. This is a task we believe is still to be completed.

References
