The influence of unmarkedness typical of language acquisition in non-standard spelling forms

A influência da não marcação típica da aquisição da linguagem em formas ortográficas não convencionais

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Abstract: This paper is based on the possible relation between non-standard spelling forms in Portuguese and English chat sessions and the speakers' intuitive preference towards the unmarked as far as syllables structures and segments are concerned. A corpora study involving the analysis of online written conversations both in Portuguese and English suggests that some of the deviations from standard orthography, through the suppression, addition or substitution of graphemes, may be related to the intuitive preference for the simplification or reduction of more marked elements at the phonological level.

Keywords: Chat sessions; Markedness; Spelling; Simplification; Syllable structures; Phonemes

Resumo: Este artigo baseia-se na possível relação entre formas ortográficas não convencionais presentes em sessões de *chat* do português e do inglês e a preferência intuitiva dos falantes em relação a estruturas silábicas e segmentos menos marcados. Após um estudo de *corpora* com base na análise de conversações escritas *online* em português e inglês, conclui-se que os desvios em relação à norma ortográfica, através da supressão, adição ou substituição de grafemas, podem estar relacionados com a preferência intuitiva pela simplificação ou redução dos elementos marcados em nível fonológico.

Palavras-chave: Sessões de *chat;* Marcação; Ortografia; Simplificação; Estruturas silábicas; Fonemas

Introduction

The presence of non-standard spelling forms in computer-mediated communication has been well documented (ANIS, 1998; MANN and STEWART, 2000; CRYSTAL, 2001; BENEDITO, 2002). In synchronous communication, as the interaction occurs (almost) in real time, the use of shortening devices is accepted and even expected in order to enable the communication to happen effectively. Consequently, new spelling forms emerge in this context.

The aim of this paper is to provide some explanation for some of these forms. It is our belief that speakers may be guided by their natural tendency towards unmarkedness while writing spontaneously in informal chat sessions. In fact, we argue that the most marked segments and syllable structures are reduced or simplified, thus surfacing as their less marked counterparts. These strategies may resemble the ones employed by infants in the early stages of language acquisition since the more marked elements tend to be acquired later.

A corpora study involving public informal Portuguese and English chats was carried out to check the viability of this hypothesis. A total of 16,006 words were analyzed through the program Corpógrafo from Linguateca. The main objectives delineated for this study were:

- to check if there are regularities in non-standard spelling forms present in online synchronous interactions;
- to attest if these regularities are related to the effects of markedness, *i.e*., if there is a trend towards the use of more unmarked segments and syllable structures;
- to verify if chat users aim to simplify more marked segments and syllable structures;
- to confirm if the strategies used by chatters are similar to the ones employed by children in language acquisition.

1 Theoretical background

Markedness is related to the fact that, in languages, certain structures are often avoided while others are produced; the former are called unmarked, according to Lacy (2006, p. 1). Nonetheless, there is a controversy concerning the viability of this concept; Haspelmath (2006) even denies its existence.

There are multiple criteria generally employed to define which segments and syllable structures are considered more or less marked (cf. BATTISTELLA, 1990; ELŠÍK and MATRAS, 2006), but the one followed in this paper is language acquisition. Therefore, the segments and syllable structures which are acquired later by children will be considered more marked, following Lass (1984) and Kenstowicz (1994).

According to the descriptions of the process of acquisition in European Portuguese (FREITAS, 1997; CORREIA, 2004; COSTA, 2010), it was assumed that:

a) examples of more marked structures are the ones which possess a:
   - coda consonant, which is suppressed or re-syllabified as onset;
   - complex onset, which is simplified by the elision of the obstruent;
   - complex nucleus, which is simplified by the elision of the glide;

b) examples of more marked segments inexistent in English are nasal vowels and diphthongs, whose production stabilizes late in terms of language acquisition. Consequently, in the early stages, these units tend to be produced as oral vowels and diphthongs;

c) the most common strategies employed by infants in the production of first words are the following:
   - suppression of phonemes in specific prosodic positions: suppression of the obstruent in a complex onset and of the glide in a complex nucleus;
   - phoneme substitution: production of the nasal vowels and diphthongs as oral vowels and diphthongs;
   - addition of phonemes: addition of schwa in complex onsets and after a coda consonant, implying a re-syllabification in both cases.

In relation to English, the process of acquisition was studied by McNeill (1978), Holzman (1983), Menn and Stoel-Gammon (1995), amongst others. Following their studies, it is going to be assumed that:

a) examples of more marked syllable structures in language acquisition are the ones with a:
   - simple or complex coda, which is suppressed or simplified;
   - complex onset, which is simplified, with the preservation of the obstruent;
   - complex nucleus, which is simplified;

b) examples of more marked phonemes in English, and inexistent in Portuguese, include the velar nasal, which is acquired later by children;

c) the most relevant strategies employed by infants while acquiring a language are the following:
   - suppression of phonemes in specific prosodic positions: elision of a phoneme in a complex onset or in syllable- and word-final position;
   - phoneme substitution: production of the velar nasal as the alveolar nasal;
   - addition of phonemes: adding schwa after a coda consonant.

As chatters make use of shortening mechanisms while writing in this type of synchronous communication, as mentioned by Crystal (2001), Benedito (2002) and Rúa (2005), and seeing that a possible relation between writing in chats and language acquisition was considered by Pons (2002), we thought that some non-standard spelling forms could be explained by the intuitive trend towards the unmarked elements of a language. In fact, we intend to use spontaneous writing as a form of access to the competence of speakers, following studies of authors like Luelsdorff (1987), Kress (2000) and Cunha (2010).

2 Corpora study

In order to verify if markedness has a role to play in the changes that occur in the new spelling forms present in online synchronous interactions, a corpora study based on public informal Portuguese and English chats was carried out. A total of 16,006 words were analyzed through Corpógrafo from Linguateca, accessible in www.linguateca.com.

2.1 *Methodology*

The data were extracted from two public informal chat rooms, one belonging to each target language: Portuguese and English. The Portuguese one, Bláblá, is available in http://bla.aeiou.pt, and the English one, Chatterbox, is accessible through the link http://www.ukchatterbox.co.uk/.

These programs were chosen for different reasons. First, they were public, which means that their content is available to everybody, thus making it technically and ethically possible to study these conversations. Secondly, they can be characterized as informal, which enables a wider use of changes in spelling. Finally, it seemed that they were being used by native speakers (due to the personal data provided as well as the proficiency in the

language), which is essential in a study that relies on speakers' intuitions.

Although there are some differences between these programs, such as the structure of the participation (one to one or one to many, according to the parameters defined by Herring, 2007), we believe that they were not enough to invalidate this study seeing that they did not interfere with the purpose of our research.

The sessions belong to different chat rooms and the conversations occurred from May to June 2008. They were saved in Word files and were subject to some changes in order to be used efficiently in Corpógrafo, from Linguateca. In fact, all the information concerning the actions of the participants in the interaction was removed, which means that only the conversations were analyzed. Therefore, for example, 'menino3 para menina kida' – *boy3 to nice girl* – didn't count as words. Punctuation was also excluded from counting, but not emoticons (symbols used to express emotions or convey specific meaning). Consequently, every sequence of characters between blank spaces was considered a word, except for punctuation marks. In fact, some full stops were even added so that the program could separate the interventions correctly.

The analysis involved the use of the tools "Dictionary", in order to check which words appeared in the sentences and their frequency, as well as "Research", so as to check the co-text of each word.

A total of 16,006 words were reached: 8,003 for each language. Each word was classified manually according to categories of deviations from standard writing or "errors". The categories which are relevant to this study are presented in the following section.

2.2 *Categories*

The categories created may be related to changes in the representation of the syllable and of the segments, as well as the representation of sound and the use of diacritics.

Changes in the representation of the syllable:

- *Deletion of the representation of part of the onset* – suppression of one of the consonants which graphically represents the onset of the syllable. E.g.: 'bigado' – "obrigado": *thank you*; there were no cases occurring in English.
- *Deletion of the representation of part of the nucleus* – deletion of the representation of one of the segments in the nucleus position. E.g.: 'dôda' – "doida": *crazy*; 'ma' – "my".
- *Deletion of the representation of the coda* – it is related to the suppression of the representation of the coda consonant even though the vowel in the nucleus is kept. E.g.: 'goto' – "gosto": *I like*; 'wi' – "with".
- *Deletion of the representation of part of the coda* – it implies the existence of a complex coda, which is only admitted in English. One of the consonants belonging to the coda is deleted. E.g.: 'jus' – "just".

Changes in the representation of segments or autosegments:

- *Addition of a grapheme* – in this category, cases of insertion of an extra grapheme were included. E.g. 'pirguntare' – "perguntar": *ask*; 'righty' – "right".
- *Deletion of the representation of nasality* – it concerns the cases in which a consonant or a diacritic representing the nasality of the vowel or diphthong are suppressed from the graphic representation. There are no examples in English as this language does not possess nasal vowels. E.g.: 'mae' – "mãe": *mother*.

Representation of the sound

- *Simplification of a digraph or deletion of a silent grapheme* – it includes cases in which two graphemes representing a single phoneme are reduced to one grapheme. It also includes examples of a grapheme with no phonetic correspondence. E.g.: 'axares' – "achares": *you think*; 'watchin' – "watching".

Use of diacritics

- *Deletion of a diacritic in a word* – this category presents cases in which a diacritic is suppressed in a word which conventionally possesses it. E.g.: 'ola' – "olá": *hello*; 'open minded' – "open-minded".

2.3 *Results*

The results obtained can be seen in the Table 1:

Table 1. Results in percentage for Portuguese and English

Category	% Port	% Eng
Deletion of part of the onset	0.29	0
Deletion of part of the nucleus	0.19	0.11
Deletion of the coda	0.07	0.06
Deletion of part of the coda	0	0.16
Addition of a grapheme	0.35	0.59
Deletion of nasality	3.19	0
Simplification of a digraph	3.10	2.10
Deletion of a diacritic	8.91	0.02

The percentages of each category are not very representative, but we would like to stress that this is due to the fact that there was no control in the data collection. Therefore, the majority of the words did not undergo any

change, and the rest of the words were subject to a wide variety of spelling alterations (which will not be discussed in this paper owing to the fact that they are not relevant for this study).

The category which obtained a higher percentage of occurrences in Portuguese is "Deletion of a diacritic", followed by the "Deletion of the representation of nasality". Regarding English, there are higher results in the category "Simplification of a digraph" and a percentage of 0% was registered for the category "Deletion of the representation of part of the onset".

2.3 *Discussion of the results*

We are going to analyze the cases of regularization of the syllable structure (more marked structures surface as CV – Consonant+Vowel –, the unmarked syllable format, according to Blevins, 1995) as well as the cases of more marked segments: nasal vowels and diphthongs for Portuguese and the velar nasal for English.

If we start with the cases related to the representation of the syllable in Portuguese, it is possible to observe that the occurrences of the deletion of part of the onset register 0.29% of cases. The examples include 'tc' – "teclas" or "teclar" (*type* or *you type*), 'bigado' – "obrigado" (*thank you*); 'pokuro' – "procuro" (*I look for*) and 'otas' – "outras" (*other*). In the first case, the deletion of the onset is included in a wider abbreviation technique since the rhyme is suppressed in both syllables. In the other cases, the changes that occur seem to converge to the same purpose: the simplification of the syllable structure. When the onset is simplified, the syllable format which surfaces is the unmarked CV. This strategy – deletion of the obstruent and preservation of the liquid – is the typical one in terms of acquisition, as attested by Freitas (1997) and Avila (2000). Therefore, we believe that it can be related to a natural tendency towards regularity as well as to the fact that the obstruent is more informative than the liquid. In fact, according to Mateus and Andrade (2000), only [l] and [ɾ] can occur in that position, thus making it rather predictable (cases with Obstruent+Obstruent are believed to possess an empty nucleus between the two consonants, according to Mateus and Andrade, 2000).

Concerning the cases of suppression of the representation of part of the nucleus, which include 'doda' – "doida" (*crazy*) and 'na' – "não" (*no*), we should emphasize that, once again, the strategy seems to be creating the unmarked syllable format present in early stages of language acquisition. It is generally the glide that is subject to elision, which may suggest that the speakers have an intuition of its lack of preponderance or the impossibility of forming a nucleus by itself. It seems that these new spelling forms, namely the case 'doda' – "doida" (*crazy*), may be a way to imitate child-directed speech, as noted by Pons (2002) for Catalan. Its intention may be creating empathy and proximity with the others so as to begin or continue the interaction.

As far as the deletion of the representation of the coda is concerned, some of the examples are 'supresa' – "surpresa" (*surprise*), 'tade' – "tarde" (*late*) and 'mai' – "mais" (*more*). The strategy employed is similar to the one used by infants while producing their first words and again the aim seems to be the regularization of a more marked structure, making it surface as an unmarked one – CV. The descriptions of the acquisition process (FREITAS, 1995; HERNANDORENA and LAMPRECHT, 2000) also attest the preference towards the deletion of the vibrant in word-medial position, as happens in these cases. Even in the last example, 'mai' – "mais" (*more*), it is possible to make a connection to language acquisition since Bonilha (2003) mentions the difficulty in handling such a complex structure: a complex nucleus plus a consonant in coda position. Therefore, the more marked structures show a tendency to be subject to regularization both in the acquisition process and in chat interactions, which require informality, bond creation and seem to enable the most intuitive trends to emerge.

A mechanism that may strongly suggest that the aim of these spellings is to simplify syllable structure consists in the addition of a grapheme since this cannot be justified in terms of economy of effort and space, contrarily to the case of abbreviations. In our corpus of Portuguese chat sessions, there is a percentage of 0.35% of these cases, namely in 'pirguntare' – "perguntar" (*ask*) and 'amore' – "amor" (*love*). It is possible to see the preference towards a more unmarked syllable format even though it means adding an extra grapheme to represent schwa.

We have been analyzing the representation of syllable structure in Portuguese, but we are now going to focus on the graphic representation of more marked segments. We have chosen the case of nasal vowels and diphthongs because their acquisition stabilizes later and because they have a more unmarked counterpart – oral vowels and diphthongs. In order to verify how they are spelled in chat discourse, it is necessary to analyze the results concerning the category "Representation of nasality". There are different occurrences in which a nasal vowel or diphthong becomes its correspondent oral vowel or diphthong, as in 'na' or 'nao' – não (*no*), 'la' – "lã" (*wool*), 'homes' – "homens" (*men*). Nonetheless, it is difficult to show if these cases are really the result of a tendency towards making a more marked segment surface as its more unmarked counterpart. In fact, if we concentrate on the category "Deletion of a diacritic", we can reach the conclusion that this type of deletion is a widespread mechanism. Therefore, although we believe that some of

the cases can be an imitation of the reduction of a nasal diphthong to an oral vowel that occurs in oral informal speech ('homes' – "homens": *men*), this need not be the case for all the examples.

To sum up, in Portuguese, it may be possible to conclude that the syllable structures which are considered more marked, and are consequently acquired later, are subject to regularization in some non-standard spelling forms present in synchronous communication. As far as more marked segments are concerned, it is not easy to show that nasal vowels or diphthongs become their more unmarked counterparts when we are only based in a written medium since writing the nasal diacritic requires more effort.

If we analyze the cases present in English, we can verify that the absence of regularization of the onset may contradict our initial hypothesis. This absence seems even less probable seeing that the syllable structure is more complex in English than Portuguese, allowing the appearance of three consonants in onset (although the first consonant, always /s/, may be considered extrasyllabic) and different combinations of consonants in onset (cf. SELKIRK, 1982; DURAND, 1990; HAMMOND, 1999).

However, we should analyze the other possible cases of regularization before drawing a conclusion.

Starting with the cases of the deletion of part of the nucleus, present in 0.11% of cases, we believe that their purpose is related to the simplification of the syllable structure, for example in 'fella' – "fellow", as well as to the reproduction of the reduced forms of clitics, namely in 'ma' – "my" (for strong and weak forms of clitics, vd. SELKIRK, 1995).

As far as the coda is concerned, there are both suppressions of the whole coda and of part of it. On the one hand, we consider that these occurrences are a form of dealing with a universally more marked sub-constituent – the coda (whether it is simple or complex). On the other hand, these suppressions are also related to a higher prosodic structure because they target mainly clitics, such as 'o' or 'a' – "of" or 'an' – "and". In fact, as these words are not the head of the prosodic constituent, they tend to be reduced (cf. NESPOR, 1999).

Therefore, it is possible to see that, even though the onset is not simplified, the same is not true for other marked syllable structures. Maybe this can suggest that the principle that requires an onset to be simple can be violated more often than the principle that requires codas to be simple. We argue that this can be related to the fact that the onset, especially in word-initial position, gives more clues to word identification (vd. GOW et al., 1996; LEE et al., 2001 for the importance of the onset in word recognition)

Like in Portuguese, there are cases in which a grapheme is added to represent a phoneme in particular prosodic positions, such as after a coda consonant. Examples like 'shite' to "shit" or 'righty' to "right" may suggest an attempt to turn a more marked structure with a coda into a more unmarked structure, which resembles the strategy used by infants when they are starting to produce words.

The representation of the more marked velar nasal is included in the category "Simplification of digraphs and deletion of silent consonants" (with a total of 2.10%). However, if we count only the cases in which the graphic sequence <ng> is represented by <n>, we obtain a percentage of 0.40%. The examples include the following: 'watchin' – "watching", 'happenin' – "happening", 'tryin' – "trying" and 'leavin' – "leaving". There is a consistent and systematic way of reducing <ng> to <n>, which is not similar to what occurs with other digraphs: <wh>, for instance, is graphically represented either as <w> or <u>. Moreover, the chosen grapheme, <n>, is the one used to represent the unmarked nasal. Not to mention that the velar nasal is not always considered a phoneme of the English language, but rather an allophone of the alveolar nasal /n/ (vd. HALLE and MOHANAN, 1985; ROCA and JOHNSON, 1999). It is our belief that this type of representation shows the speakers' intuition towards the preference for more unmarked segments, which is present since the early stages of language acquisition and can emerge in this communicative context that enables the use of a spontaneous form of writing.

To summarize, in English, it is possible to verify that the nucleus and the coda are simplified even though the same does not happen with the onset. We do not consider that this suggests that the complex onset is not marked, but rather that it is so relevant in terms of word identification that its representation is preserved. The velar nasal is represented as its less marked counterpart – the alveolar nasal –, which can suggest that there is a tendency to regularize it and that it has an unstable status in English.

Thus, we argue that markedness is relevant and is present in the speakers' intuitions, conditioning the changes that they operate on the orthography formally learnt at school.

Conclusion

This paper is based on the hypothesis that there is a relation between the deviations from standard writing in Portuguese and English informal chats, especially the shortening devices or abbreviations, and the speakers' trend towards symmetry, naturalness and the preference towards the unmarked.

We assumed that languages tend to prefer and, consequently, generate certain syllable structures and segments. The criterion chosen to determine more marked elements was language acquisition: the elements which are considered more marked are the ones which are produced or which stabilize later in terms of the acquisition of the native language. Therefore, the more marked syllable structures tend to be regularized into the core syllable CV by infants while producing their first words. Furthermore, the more marked segments, such as the nasal vowels and diphthongs for Portuguese, and the velar nasal for English, tend to be produced as their less marked counterparts.

Since chat sessions are communicative contexts which make informality and creativity possible, spelling becomes spontaneous and not tightly restricted by formal spelling rules. Thus, we believe that it enables the speakers' intuitions to emerge, and these lead them to the preference of the unmarked in certain cases, especially when there is an intention to imitate child-directed speech with the purpose of creating proximity and affectivity, as suggested by Pons (2002).

After a corpus study based on Portuguese and English informal chats (Blablá and Chatterbox), in which 16,006 words were analysed and divided into categories of spelling "errors", some conclusions could be drawn. In fact, it is possible to make a connection between some non-standard spellings and the tendency towards the preference of the unmarked as far as syllable structures and segments are concerned. These can be seen in the following cases:

- simplification of more marked syllable types through suppression – complex onsets and nuclei in Portuguese surface as simple onsets and nuclei; complex nuclei and codas in English become simple; the coda is suppressed in Portuguese, especially in word-medial position; the coda is subject to elision in English as well;
- simplification of more marked syllables through addition – complex onsets in Portuguese are re-syllabified due to the insertion of the representation of the schwa; consonants in coda position become the onset of another syllable both in English and Portuguese;
- substitution of the representation of the velar nasal, a more complex segment in English, by the alveolar nasal, more unmarked;
- substitution of the representation of the nasal vowels and diphthongs, more marked, by their oral counterparts, more unmarked (in spite of the difficulty in establishing when this is merely a graphic absence of the diacritic).

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Recebido: 13 de novembro de 2012
Aprovado: 15 de janeiro de 2013
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