ANAPHORIC REFERENCE STRATEGIES USED IN WRITTEN LANGUAGE PRODUCTIONS OF DEAF TEENAGERS

Studies that seek to objectively analyze written productions by deaf individuals are scarce; there are also few researchers who discuss the knowledge these people have about written text comprehension and production. For the present study, the investigators analyzed 16 written productions by four deaf individuals based on the anaphoric reference concept as recently proposed in textual linguistics (see, e.g., I. V. Koch & L. A. Marcuschi, 2002). It is important to show that referential progression is one of the textual aspects capable of giving stability and continuity to written productions; referential progression is also relevant to discursive coherence. The results of the writing analysis in the present study show that deaf individuals can learn to use expressive resources that are available in the Portuguese language and can use reference strategies, as long as these individuals can interact with a partner who knows Portuguese.

ANAS CRISTINA GUARINIELLO, MARIA CRISTINA DA CUNHA PEREIRA, GISSELLE MASSI, ANA PAULA SANTANA, AND ANA PAULA BERBERIAN

Guarinello, Massi, Santana, and Berberian are professors in the Ph.D. and Master’s Program in Communication Disorders, Universidade Tuiuti do Paraná, Curitiba, Brazil. Pereira is a professor in the Division of Education and Rehabilitation of Communication Disorders, Pontifícia Universidade Católica de São Paulo, Brazil.

Another important and underdiscussed factor in analyzing the writing of a deaf person is the use of reference. We understand that the use of reference strategies is fundamental in the production of the comprehension and the elaboration of texts on the part of those who can hear, and should be, in the same fashion, considered crucial in the textual constructions developed by the deaf. For us, the anaphoric strategy refers to the use of a word as a substitute for a preceding word, frequently in the form of pronominalization, for example: /John likes to go to the movies. Yesterday he went to watch Spider-Man/, /Snow White went to the forest. The princess got lost/. It needs to be made clear that the referential progression through anaphora is one of the aspects of textuality that gives stability and continuity to texts, being a relevant factor in discursive coherence.
The aim of the present investigation was to analyze written productions of deaf individuals by means of the concept of referentiation as developed in textual linguistics, and more specifically considered by Koch and Marcuschi (2002).

According to Koch and Marcuschi (1998), the use of referents is a process that is realized gradually in the speech resulting in the construction of referents. Because of this, referring is not an activity to be confused with "labeling," that is, assigning a word initially, but is, rather, a discursive activity, in which the referents become objects of discussion.

When language is thought of as heterogeneous and changeable, and socially constituted, reference use becomes faced with a process that is configured in the use of the language, like a discursive process, and the referents become objects of discussion. In writing, reference is conceived as an activity that occurs inside the discourse, a result of a negotiation between the participants in the discursive process and the referential chains that are like mechanisms through which means of information are presented and maintained in the text, in which the understanding of this text is possible, according to Marcuschi (1998) and Mondada and Dubois (1995).

Therefore, in the present study about deaf individuals’ writings, the reference is conceived as a resulting process of the established negotiation between translators inside the discourse, and the referential chains are taken as mechanisms by means of which some information is presented and maintained in a text, contributing to the understanding of this text.

Koch and Marcuschi (2002) affirm that (a) the reference is, above all, a problem that deals with the operations put in effect by individuals through the way in which discourse develops; (b) the discourse constructs, which causes remission, while at the same time it is a tributary to this construction; and (c) eventual modifications, whether physical or of any other type, suffer “mundanely” or predictably by a referent, not necessarily because of a lexical recategorization in the discourse.

To Koch and Marcuschi (2002), referentiation is a general case of operation of the indicating elements, all the cases of referential progression are based on some type of referentiation, and it is unimportant whether the indicating elements are the same elements that reoccur. In this fashion, referring is an activity of attainable indication with a language without implying a speculative language-word relation; to send is an activity of the initial processing in the cotextuality; to retake is a continuous activity of a referential nucleus, whether it be a case of identity or not.

Other terms used by Koch and Marcuschi (2002) are recategorization and cosignification. These two aspects have fundamental importance in the processes of referentiation and textual progression. The first is founded in a type of remission tied to an aspect of contextual antecedence that can be a lexical item as well as an idea that operates as an informational space for the inference. The second is related to cosignificance, which is a lexico-semantic relationship.

In order to discuss deaf people’s written development, it is important to discuss deaf people’s difficulties concerning the use of written language. Across the world, the literature on this area shows that the acquisition and the development of written language is a problem.

Kyle (1981) affirms that the deaf have a hard time reading and writing, which is evident in relation to verbal conjugation, in the lack of articles and pronouns, and in auxiliary verbs. It is also evident through errors such as omission, substitution, addition of words, and disorganization in word order. Pereira and Oliveira (1999) point to the fact that the deaf show difficulties with aspects related to grammar in written Portuguese.

Other studies (Lane, Hoffmeister, & Bahan; Téllez & Calderón, 2001) indicate that the reading comprehension of deaf people is in general at a lower level than that of hearing people. These studies demonstrate that some factors influence the development of reading and writing by deaf people, such as communication with deaf people solely in an oral language, a lack of linguistic competence, and a lack of reading and writing immersion in their homes and schools.

Johnson, Liddel, and Erting (1989), Svartholm (1999), and Webster and Heinemann-Gosschalk (2000) also say that, in general, reading and writing are taught to deaf people through mechanical and noncontextual activities that contribute to their difficulties with this language modality. Deaf people must practice written language through significant activities, and for that they need a competent adult.

A study developed by E. Fernandes (1990), with 40 deaf participants who were older than age 18 years and who had finished fourth grade, showed this population’s restricted use of the Portuguese language in the reading and comprehension of texts. According to Fernandes, this restricted use is seen in the considerable limitations that the deaf experience when it comes to the structure of the language, lexical restrictions, and the lack of knowledge of the processes of word formation. It is also seen in the inadequate use of verb conjugation, tenses, and moods; the inadequate use of prepositions; the omission of connections in general and connecting verbs;
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...the mix-up between the two forms of the verb *to be* in Portuguese; and the restricted use of certain coordination and subordination structures. Fernandes says that this situation is an indication of the insufficient education these deaf study participants—who had ample command of sign language—received, education being, from which her point of view, the only means by which they could effectively gain access to the Portuguese language.

Góes (1999) characterized texts produced by deaf individuals and analyzed their atypical constructions through an investigation with students who had undergone a lot of schooling. In the same way as S. F. Fernandes (1998), Góes verifies various obstacles to the use of the rules of construction in Portuguese, such as the inadequate use or omission of prepositions, verbal conjugation not corresponding to the subject of the verb, inconsistencies in verbal tenses and moods, inadequate use of gender in adjectives and articles, and incorrect use of the personal pronoun in the oblique case, among other things.

Góes (1999) also identified problems in the analyzed texts that were relative to aspects of cohesion, especially those concerning the use of reference and thematic progression. Góes observes that these aspects have a tendency to result in a lack of coherence in the text. First of all, she identified some problems in relation to the instances of ambiguous use of reference, relative to the manner of insertion of names and pronouns in the discourse, which can cause errors in the interpretation by the referent. Second, she identified errors in the interpretation of the discourse that occur when a writer makes an improper lexical choice, which is the inclusion of words with unconventional meanings or the inclusion of “made up” words.

Góes (1999) calls attention to the fact that the analyzed texts were produced under the influence of the rules in sign language. Rodrigues Silva (1998) says that there is a need to concede an effective space for Brazilian Sign Language (Libras) in the deaf person’s education. For this to occur it is necessary, according to Góes, to encourage the expansion of projects that have as a goal the education of hearing teachers, the education of deaf teachers, the creation of incentives for pedagogic work oriented toward the use of sign language, and the amplification of studies about the knowledge of this language.

Another study that attempts to analyze cohesive aspects of written texts was done by Silva (2001), who analyzed the structure of the texts of eight deaf students between the ages of 16 and 21 years who had completed the fourth grade in a special school. All of these students basically communicated through Libras. Silva’s analysis considered the textual cohesion and the abilities that the deaf person who has been exposed to sign language has to produce texts.

Along the same lines as E. Fernandes (1990), S. F. Fernandes (1998), and Góes (1999), Silva (2001) showed the interference of Libras in the written production of her study sample. She affirmed that the written texts by the study participants involved with sign language did not show the same characteristics as the texts of a Portuguese speaker, but were like those of someone who spoke Portuguese as a second language. To Silva, the difficulties encountered by the deaf in relation to their writing should not be treated as an obstacle; they can be a pedagogic reference to the study of written Portuguese as a second language.

The cited studies demonstrate that the fact that a deaf person does not receive auditory information is not the only element that interferes in his or her reading practices and the production of text in Portuguese, but above all, the question is whether that person’s founding language—sign language—is interfering with the comprehension process and the production of written text. Sign language cannot be discounted when reading and writing in the deaf is evaluated and studied.

Method
Participants

The subject body of the present study was made up of 16 written productions gathered over a period of 2 years from four deaf boys ranging in age from 11 to 15 years. Information was gathered while these boys attended elementary school in Greater Curitiba, Brazil, and were visited weekly by a speech-language therapist, the principal investigator of the present study. All of the participants had congenital profound bilateral hearing loss. All of them used Libras and speechreading. It is important to note that these four students had hearing parents, three of them had learned sign language in a special school, and one had started to learn sign language in a sign language course after the age of 10 years. All the parents had completed a basic sign language course and used Simultaneous Communication to communicate with their sons. Three of the boys were actually studying in regular schools where the teachers did not use sign language, and the other studied in a special school where the teachers used sign language. All of them sometimes had contact with deaf adults in churches and in Deaf associations.

Procedure

The 16 textural productions were collected during individual speech-language therapy sessions, in which...
the investigator was the coauthor of the elaborated texts. Collection of the research data was based on two strategies:

1. The investigator used written materials (stories, newspapers, books, videos with text) in the therapy sessions and encouraged the study participants to read. She read along with the boys and would provide assistance whenever asked. If they did not understand the meaning of a word or sentence, she explained it through sign language. After reading and explaining the texts, she would ask the boys to write something about what they had read.

2. The investigator and the study participants talked about topics of interest to the participants, and afterward the boys were asked to write about the topics that had been discussed. In all of the sessions, the writing was emphasized in significant contexts, in which the deaf internalized the Portuguese language, noting its functionality.

To clarify, even though our analysis was restricted to 16 texts produced by the study participants, it would be impossible to present analysis of all of them, so we chose to explain only 4 textual productions. However, all 16 texts are considered in the Results section of the present study, in both quantitative and qualitative terms.

The analytical procedure we used in our investigation is based on one proposed by Koch and Marcuschi (2002) that was adapted by Guarinello (2004), which considers resources and strategies employed by deaf people in the processes of reference use (see Table 1).

Table 1 indicates the basis of the strategy analysis of reference use presented in the texts of the study participants. In the five following examples, we present instances of the use of each kind of strategy listed in Table 1, in keeping with the typology employed by Guarinello (2004) in her consideration of texts produced by deaf people.

Example 1: nominal anaphora

*The boss [1] sent them go stole 300 cars ( . . . ) the boss [2] said no time . . . *

In Example 1, it is possible to notice the first strategy of nominal anaphora, because there is the repetition of one lexical item—*boss*—that had already been written.

Example 2: pronominal anaphora

1—*The thieves [1] will get the teacher the treasure. They [2] will found . . . *  

The second strategy, pronominal anaphora with characteristics of coreferentiality, was used in this text once, the referent—*the thieves*—being retaken by the use of the pronoun *them*.
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Example 3: nominal anaphora

I [1] will write the e-mail is computer (. . .) Gabriel [2].

In Example 3, the strategy of nominal anaphora is shown, in which the text begins with the use of the first-person pronoun, which is then replaced with the proper name Gabriel.

Example 4: nominal anaphora with the use of synonyms or paraphrases.


The strategy shown in example 4 is nominal anaphora with the use of synonyms or paraphrases. Example 4 is taken from a text written by a deaf person, and is capable of demonstrating that initially the writer used the term medic, which was later replaced with a synonym, doctor.

Example 5: defined description

The bad men [1] would get (. . .) that thieves

The fifth strategy is defined description (Koch & Marcuschi, 2002), a linguistic form constituted, minimally, by a determinant definition following a name. The choice of the defined expressions, as in the underlined examples, can enable the reader to understand relevant information about the beliefs, opinions, and attitudes of the writers of the texts, which aids in the construction of the meaning.

We are aware that many other analysis of written language development could be made using these same written productions, but in the present article we chose to investigate only the anaphoric reference strategies.

Materials

The materials consisted of sheets of paper, pencils, pens, and different types of written texts from newspapers, comics, books, magazines, poems, fairy tales, fables, recipes, stories about events, and interviews.

Results

The text shown in Figure 1 was produced on September 10, 2002, after the speech-language therapist and one of the deaf study participants read a story.

From Text 1, five anaphoric chains where chosen: one for the referent “armadillo,” another for “fox,” another for “palace,” another for “house,” and another for “king lion.”

For the referent “armadillo,” strategy 1, nominal anaphora, was postulated by Koch and Marcuschi (2002) was chosen, nominal anaphora with lexical repetition, in [2], [4], [10], [18], and [19]. For the referent “fox,” strategy 1, referentiation specified by nominal anaphora, was used in [5], [7], [13], [16], and [17].

What we can say about the referent “palace” is that strategy 1, nominal anaphora, is seen in [9], [12], and [14]. Only in [14] does a lexical repetition occur; in the other examples, the repetition is partial.

For the referent “house,” strategy 1, nominal anaphora, was used in [21]. This referential chain can cause confusion in readers who are not familiar with the story, since it can be mistaken for the previous chain. Because the speech-language therapist knew the story, she knew that the first “house” that was referred to in the text was the “house of the fox,” and that the “house” in this chain was the “house of the armadillo.” Góes (1999) identifies some problems in relation to instances of ambiguous referentiality in deaf persons’ writings, which can cause difficulty in the interpretation of the referent.

Finally, for the referent “king lion,” strategy 1, nominal anaphora, was used in [11], as well as strategy 2, pronominal anaphora through ellipse, in [15].

In Text 1, we verify that even though many referents were used, because a story was being told in which there were four characters, the author of the text basically used strategy 1, nominal anaphora for lexical repetition. Strategy 2, pronominal anaphora, appears only once in this text. In these strategies, the relationship between the terms is established by coreference and cosignificance. Besides that, the abundance of repetition is, according
to Koch (1995), a common strategy in initial writings, in which writers generally do not know which strategy to use and how to modify its use.

Regarding the referential progression of Text 1, there were no significant changes in the strategies used in the selected text. Strategy 1, lexical repetition through nominal anaphora, was most commonly used. Besides this, it is possible to verify the use of strategy 2, pronominal anaphora, which, according to Marcuschi (1998), frequently occurs in writing, but it is not preferential, or the most common.

Text 2 (see Figure 2) was written on November 13, 2002, as a result of the desire of one of the study participants to write a letter to a girl with normal hearing. For the anaphoric chain of this text, the referents “Gabriel” and “Caroline” were selected.

For the referent “Gabriel” there was a predilection toward strategy 2, the pronominal anaphora with characteristics of coreferentiality, in /me/ [3], /mine/ [4], /I/ [8], /I/ [10], /mine/ [13], /with me/ [18], /mine/ [20] and /I/ [21]. It is interesting to note that the referentiation for demonstrative pronouns occurred a lot in this text. Perhaps this is because the text was a letter; in general, in this kind of text, the pronominal anaphora is commonly used. It was also possible to verify the use of the nominal anaphora (strategy 1) for lexical repetition in [22].

For the referent “Caroline,” we noticed the use of the pronominal anaphoric strategy in /yours/ [5], /you/ [6], /you/ [7], /yours/ [9], /you/ [11], /you/ [12], /yours/ [14], /you/ [15], /you/ [16], (17) and /you/ [19].

For the referential progression, which deals with the aspects and strategies proposed by Koch and Marcuschi (2002), strategies 1 and 2 were the most used. It should be noted that strategy 2, pronominal anaphora, is not mere repetition, but has a coreferentiality function. This same strategy was also frequently used through the ellipses.

Text 3, shown in Figure 3, was produced on May 14, 2001, after the speech-language therapist and one of the study participants read the story “The Ugly Duckling” together.

In Text 3, only one anaphoric chain was chosen for the referent “duckling”. We noticed the use of strategy 1—nominal anaphora of lexical repetition in [2], [3], [4], [5], [6], and [7]. We also noticed strategy 4, nominal anaphora through synonyms, in /duck/ [9], and strategy 5, defined description, in /swan/ [8].

We noted that in this text, as in the two previous ones, strategy 1 was very commonly used. Also, in a divergence from the other two texts, strategies 4 and 5 appear in Text 3. In the analysis of this textual production, it is possible to verify that the anaphoric chain is very elaborate, and it already presents three strategies of referentiation, including recategorization strategies.
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In Text 3, there are cases of ambiguous reference. In line 2, in the words /he laughs/, there is an impression that it was the ugly duckling who laughed. Since the speech-language therapist was with the study participant at the moment of the production and was familiar with the story, the therapist knew that it was the ugly duck that laughed at the ugly duckling. The way the text was written, another reader could put the pronoun “he” in this anaphoric chain. The same goes for line 6, where the words /the duck fear ran away/ refer to the savage duck, which ran away out of fear of the sound of a gunshot, and not to the ugly duckling. In line 8 and 9, the word /swan/ appears three times. But only in line 9 it refers to the ugly duckling, when he realized that he was a swan. It was only possible to figure out the ambiguous references because the therapist shared the construction of the text; that is, had another reader received this text to read, the ambiguous references could have prejudiced text coherence.

Text 4, shown in Figure 4, was produced on July 31, 2001, after the therapist and one of the study participants talked about a movie they had watched called Dr. Dolittle II.

For the analysis of Text 4, five anaphoric chains were selected: one for the referent “Dr. Dolittle,” one for “bear,” one for “girl bear,” one for “bad man,” and one for “animals.”

For the referent “Dr. Dolittle” there was a predilection toward strategy 5, the defined description, /doctor/ [3] and [7], and strategy 2, pronominal anaphora, in /him/ [5].

For the referent “bear” there was a predilection toward strategy 1, nominal anaphora for lexical repetition, in [4], [6], [8], [9], [10], [12], [15], [17], [19], [21], [23], [24], [34], and [35].

For the referent “girl bear” it is possible to verify only strategy 1, nominal anaphora, in [13], [16], [22], and [36].

The referent “bad man” was reused one time in [18], also by means of strategy 1, nominal anaphora.

Finally, for the referent “animals,” many remissions were used, recategorizing the word by means of strategy 5, defined description, in /horse/ [26], /dog/ [27], /cow/ [28], /chicken/ [29], and /dog/ [33]. It is also possible to verify strategy 1, nominal anaphora, in [30] and [31], and strategy 2, pronominal anaphora, in /him/ [32].

The anaphoric chains used in Text 4 were very elaborate, principally by means of the use of strategy 5, defined description, since this strategy presents other characteristics, such as recategorization, no coreferentiality, no cosignificance, implicit, evaluation, and refocus. This demonstrates that the study participant who produced this text was reflecting the use of written Portuguese, since the reference is a question that involves the operations effected by the study participants through the measure that the discourse develops and builds that causes remission, at the same time in which it is characteristic of this construction.

As we have already noted, the 4 texts illustrate our analysis. Besides these 4 productions, we considered the other 12 that, when summed up, totaled 16 texts, which make up the body of the present study. In the 16 analyzed texts, a total of 42 anaphoric chains and 266 referents were found. The distribution of the referents among the five different strategies is shown in Table 2.
Table 2
Prevalence of Use of the Five Strategies in the Referential Chains of the Sixteen Analyzed Texts

<table>
<thead>
<tr>
<th>Strategies used in the cohesive chains</th>
<th>Frequency (N = 266)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Nominal anaphora</td>
<td>104</td>
<td>39.09%</td>
</tr>
<tr>
<td>(2) Pronominal anaphora</td>
<td>129</td>
<td>48.50%</td>
</tr>
<tr>
<td>(3) Nominal anaphora: use of pronouns in 1st and 2nd person and retaken by proper noun</td>
<td>11</td>
<td>4.14%</td>
</tr>
<tr>
<td>(4) Nominal anaphora: synonyms</td>
<td>8</td>
<td>3.01%</td>
</tr>
<tr>
<td>(5) Defined description</td>
<td>14</td>
<td>5.26%</td>
</tr>
</tbody>
</table>

Strategy 1, nominal anaphora through lexical repetition, was present in all 16 analyzed texts, and was the second most used strategy. Strategy 2, pronominal anaphora, appeared in practically all of the texts, and was the most used. Strategy 3, nominal anaphora characterized by the use of pronouns in the first and second persons retaken by personal pronouns, appeared only in a few texts, principally in the letters and stories, in which the study participants initiated their writing referring to themselves by the pronoun “I” and retook their names in the end of the text. Strategy 4, nominal anaphora for synonyms, appeared a few times in the analyzed texts. Strategy 5, defined description, was used in a few texts, appearing 14 times. The average number of uses of cohesive chains or references per produced text was 2.6. The average number of referents per participant in each text was 16.6.

In the 16 texts, coherence occurred thanks only to the common knowledge and the language shared by the investigator and the study participants. We agree with Koch and Marcuschi (2002) when they argue that coherence does not present itself in discourse as something ready, static, and finished, but that it constructs itself in the dialogic interaction and assumes that the translators are disposed to find a common ground in understanding.

Discussion
During the 2 years in which we collected the data, we were able to participate in the textual productions elaborated by the study participants without simply approving or correcting their texts. Like Gerald (1997), we used the production of texts as a starting point for all of the teaching processes and learning of a language, because we understood that it is in the text that the language reveals itself in its totality. In this mode, the study participant compromises himself with his words and with his discursive formation, and has something to write about, a reason to write that which he wants to write, and someone to write to, and constitutes himself as such, as an individual who writes something that will be read.

In relation to the analysis of the texts, within the referential progression strategies that are most often used, two stand out: nominal anaphora with lexical repetition (strategy 1) and pronominal anaphora (strategy 2). These strategies are specified, or the relationship between the terms that are established through coreference. Also, with some texts, the study participants used strategy 3, nominal anaphora in which the introduction to the referent occurs through the use of pronouns in the first and second persons, and is substituted by pronouns and a proper name. We also noticed the use of strategy 4, nominal anaphora through synonyms and paraphrases. This strategy demands recategorization and refocus. Within the strategies that require implicit use and require inferences by the reader, the study participants sometimes used strategy 5, defined description, which also is a strategy of recategorization and no coreferential, which demands greater consideration of the writing that will be used. It is probable because of this that strategy 5 was used more often by study participants in more advanced classes (Guarinello, 2007).

It is also important to note that this same anaphoric reference process occurs in American Sign Language, Libras, and other forms of sign language discourse; that is, a person may sign or fingerspell “Brazil” and then designate a place. Future reference would be a finger or thumb point to the space, a case of sign pronominalization (Felipe, 1991). Deaf signers in general do not have problems using anaphora in sign language, but have some difficulties using it in written language.

To conclude, we must agree with Pereira (2003) when she affirms that writers who are deaf can build texts using reference strategies with coherence and cohesion, but for that they should interact with a Portuguese-speaker, with whom they can learn to use the expressive resources available in this language. Besides, the analysis shown in the present study demonstrates that the work on anaphoric reference strategies led to improvement in the writing of our study participants.

Note
1. It is important to note that in Brazil many deaf people, despite spending many years in school, do not conclude grammar school and middle school; that is, they stay in school more than 10 years but keep failing.
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References