

THE ATTRITION OF PORTUGUESE AS A THIRD OR ADDITIONAL LANGUAGE OVER THE SUMMER HOLIDAYS

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Abstract:

The present study aims to investigate the attrition of Portuguese as a third or additional language (L3, L4, etc., cf. de Angelis, 2007) over the summer holidays. The research questions concern the correctness of the participants' responses, the language areas in which attrition is observed, the ways in which it manifests itself and the students' perception of their own attrition. Since multilingual systems are dynamic and the languages are in constant interaction, when a language is not used, attrition sets in (Herdina & Jessner, 2002). However, some elements of linguistic knowledge are more prone to attrition than others (Sharwood-Smith, 1989). The study was carried out with 42 Polish (L1) learners of Portuguese, 30 of whom were second-year students of Portuguese philology, and 12 were students of other Romance philologies who followed a Portuguese language course. After the summer holidays, they completed a vocabulary and grammar test and participated in oral interviews, followed by a questionnaire. In general, they produced more incorrect and partly correct (e.g. the right verb in the wrong form) than correct responses. Attrition could be observed in various language areas, from speaking fluency to grammar and vocabulary, though the subjunctive, which they had only started to study before the holidays, caused them the most difficulty. The attrition of Portuguese manifested itself in various forms, from avoidance and the inability to retrieve certain items, through the confusion of Portuguese forms, to interference from other languages. As the questionnaire indicates, the students were aware of the areas in which attrition occurred. It can be concluded that attrition is connected mainly with a decrease in the activation of a language. Given the interference from other Romance languages, it can be supposed that, as the activation of Portuguese items is lower, Spanish, French and Italian items compete for selection.

Key words: multilingualism, language attrition, interference, Portuguese.

1. Introduction

The purpose of the study has been an investigation of the attrition of Portuguese as a third or additional language (term introduced by de Angelis, 2007, to include L3, L4, L5, etc.) over the summer holidays. The study investigated attrition observable in both oral and written production. On the one hand, fluency in oral communication deteriorates fastest (Bardovi-Harlig & Stringer, 2010, p. 32), but on the other hand, it may be reflected mainly in an increased number of hesitations and attempts to retrieve forgotten words, while errors in writing may constitute more substantial evidence of language attrition. On the basis of the results, it is attempted to draw some conclusions concerning language attrition in multilingual systems.

2. The phenomenon of language attrition

In general, “*language attrition* may refer to loss of language as a result of contact with majority languages, loss of language by communities, or loss of language by individuals in both pathological and non-pathological settings” (Bardovi-Harlig & Stringer, 2010, p. 2). However, Köpcke and Schmid (2004, p. 5, as cited in Herdina & Jessner, 2013, p. 753) propose a narrower definition, according to which language attrition is “the non-pathological decrease in a language that had previously been acquired by an individual” and is therefore distinct from such phenomena as language loss in aphasia.

It often occurs in situations of language contact, for example, in the case of L1 attrition in immigrants living in a foreign country (Cherciov, 2013; Sharwood-Smith, 1989), but there can also be attrition of a foreign language learnt at school and not used any more, that is why in multilingual repertoires the chronological order of language acquisition does not necessarily correspond to language dominance, which is determined by the proficiency levels and the frequency of use of the particular languages (Herdina & Jessner, 2013, p. 754).

According to Herdina and Jessner (2002), multilingual systems are dynamic and competence in each of them changes with time, due to constant cross-linguistic interaction (an umbrella term covering transfer, interference, borrowing, code-switching, etc., Herdina & Jessner, 2002, p. 29). Consequently, if a language is not used for some time, attrition sets in. Therefore, language learning does not take place “once and for all”, but, in order to prevent attrition, language users have to make an effort to maintain the competence they have acquired.

Even though the patterns of language attrition can offer interesting “insights into the structure of the linguistic system” (Fase, Jaspaert & Kroon, 1992, p. 9, as cited in Herdina &

Jessner, 2002, p. 94), this phenomenon remains insufficiently researched for the following reasons: First, “language attrition is a gradual and much less spectacular phenomenon than abrupt complete language loss” (Herdina & Jessner, 2002, p. 96). Second, if language attrition becomes noticeable, speakers try to counteract it by using compensatory strategies. Third, “at least at an early stage, it expresses itself in the form of an increased scatter of performance” (Herdina & Jessner, 2002, p. 96). Indeed, errors in performance do not have to reflect a corresponding loss of competence. As Sharwood-Smith (1989, p. 190) remarks in reference to L1 attrition, “subjects in a loss situation can demonstrate their possession of native competence by various means, including self-correction and also the selection and rejection of test items exemplifying standard and deviant forms respectively.”

To explain the order of language attrition, several hypotheses have been proposed, two of which are discussed by Riemer (2005, p. 217-218): “last learned - first forgotten”, with emphasis on the temporal sequence, and “best learned – last forgotten”, with emphasis on the depth of cognitive processing (Schöpfer-Grabe, 1998, as cited in Riemer, 2005, p. 218). However, language attrition does not involve only the loss of language skills, because the incubation period, when the language is no longer studied actively, also involves language retention, or “the maintenance or improvement of proficiency in a language following its initial acquisition” (Gardner, 1982, p. 24, as cited in Riemer, 2005, p. 218) and even some residual learning, or a kind of cognitive maturation which can lead to an increase in competence (Riemer, 2005, p. 217-219). Moreover, if a critical threshold, or a level of competence which protects information from being forgotten, is reached (Neisser, 1984, as cited in Riemer, 2005, p. 218), a certain amount of knowledge remains permanently in the learner’s mind.

Furthermore, some features of language are more prone to attrition than others. Preston (1982, as cited in Sharwood-Smith, 1989, p. 191) enumerates several sites of “high attrition likelihood”, such as marked items, low-frequency items, items learnt last, irregularities, etc.

Moreover, the availability of a language for production and/or comprehension largely depends on its activation level, which is connected with the frequency and recency of its use. According to Green’s Inhibitory Control model (Green, 1986, p. 215), “a language can be selected (and hence controlling speech output), active (i.e., playing a role in ongoing processing), and dormant (i.e., residing in long-term memory but exerting no effects on ongoing processing)”. If a language is not used, its activation falls (Green, 1986, p. 215). Thus

a language that has undergone some attrition due to non-use can also be assumed to be partly deactivated.

In order to speak a particular language, one has to suppress the other language(s), which requires inhibitory resources (Green, 1986, p. 217-218). As a means of ensuring that the speech plan is produced only in the selected language, Green (1998, p. 101) postulates the existence of language tags. In the Inhibitory Control model, the main role of language tags is that played in lemma selection (Green, 1998, p. 101).

Finally, apart from linguistic factors, an important role is played by social and affective factors, such as language attitudes and motivation (e.g. Riemer, 2005). However, as Cherciov (2013) has shown, the relationship between attitudes and language proficiency is ‘neither clear-cut nor linear across all bilinguals’ (Cherciov, 2013: 730). A positive attitude does not constitute a guarantee of avoiding language attrition, but, as Cherciov (2013: 730) concludes, it can counterbalance attrition if it is “conducive to an active effort to maintain the L1.”

3. The study

3.1. Participants

The study was carried out with 42 Polish (L1) learners of Portuguese, including 30 second-year students of Portuguese philology (22 from Maria Skłodowska-Curie University in Lublin and 8 from Jagiellonian University in Cracow) and 12 students of other Romance philologies (Spanish, French or Italian), who studied Portuguese as an additional foreign language at Jagiellonian University.

They had a variety of language combinations, that is why Portuguese was not necessarily their L3, but rather a third or additional language (L4, L5, etc.). Apart from Polish and Portuguese, the participants’ language combinations included English (41 participants), Spanish (33), German (17), French (11), Italian (11), Russian (6), Romanian (5), Latin (3), Swedish (1) and Chinese (1).

3.2. Method

The study consisted of a written grammar and vocabulary test, followed by oral interviews with the students, carried out by the researcher, and, finally, a questionnaire concerning the students’ language combinations and experience, and the study they had just participated in, paying special attention to the areas of attrition observed by the participants in their own performance.

The test consisted of three parts: cued translation (e.g. Se _____ esse livro, _____ amanhã), gap-filling and a multiple-choice test. It involved items and structures which were either marked and specific to Portuguese (for example, the first conditional with the future subjunctive instead of the present indicative, e.g. Se encontrar esse livro,..., not: Se encontro esse livro), marked but common to Portuguese and Spanish (for example, certain uses of the subjunctive), or items slightly different in Portuguese in Spanish, which could lead to interference (for example, Vais tomar duche agora? vs. ¿Vas a ducharte ahora?). However, the items were typical and fairly simple, because they could not be completely new to the participants, but rather, the participants were expected to have already encountered and possibly forgotten them.

Similarly, the topics of the oral interviews, which were randomly drawn out by the participants, were quite simple in terms of the background knowledge they required (hobbies, favourite animals, favourite books, travelling, etc.).

The research questions were as follows:

- 1) How correct are the participants' responses?
- 2) What areas of linguistic competence can attrition be observed in?
- 3) How does the attrition of Portuguese manifest itself?
- 4) How do the students themselves perceive their attrition?

3.3. Results and discussion

In general, the participants produced a large number of errors, as well as partly correct responses (e.g. the right verb in the wrong form). The “partly correct” category was introduced to take into account responses which indicated that the students had retained some of the necessary knowledge, and only some of it had been affected by attrition.

In the cued translation test, as Table 1 shows, most of the answers were partly correct, followed by incorrect and correct ones and, finally, avoidance.

Table 1: The contingency table comparing the groups' performance on the cued translation task

	Lublin	Cracow Other	Cracow Port.	
Correct	30	16	29	75
Partly correct	89	58	41	188
Incorrect	51	32	7	90

Avoidance	50	14	3	67
	220	120	80	420

df = 6

The difference between the groups, calculated by means of a chi-square test, is statistically significant at $p < 0.001$.

By contrast, in the gap-filling task, most of the answers were correct (in most cases, more than one answer was possible), followed by incorrect answers, avoidance and partly correct answers.

Table 2: The contingency table comparing the groups' performance on the gap-filling task

	Lublin	Cracow Other	Cracow Port.	
Correct	90	45	48	183
Partly corr.	23	16	9	48
Incorrect	55	48	17	120
Avoidance	52	11	6	69
	220	120	80	420

df =6

The difference between the groups, calculated by means of a chi-square test, is statistically significant at $p < 0.001$.

In the multiple-choice test, most of the answers were correct, followed by incorrect ones and avoidance.

Table 3: The contingency table comparing the groups' performance on the multiple-choice test

	Lublin	Cracow Other	Cracow Port.	
Correct	197	77	70	344
Incorrect	19	41	10	70
Avoidance	4	2	0	6
	220	120	80	420

df =4

The difference between the groups, calculated by means of a chi-square test, is statistically significant at $p < 0.001$.

The comparisons of all three groups indicate that there were indeed significant differences, and that the students of Portuguese as an additional language, not of Portuguese philology, performed significantly worse. On the one hand, they spent less time studying Portuguese, as their main foreign languages were Spanish, French or Italian, and on the other hand, the higher level of activation of the dominant foreign language probably led to more interference.

Moreover, the correctness of the students' answers also depended on the task.

Table 4: The contingency table comparing the groups' performance on all three tasks

	Translation	Gap-filling	MCT	
Correct	75	183	344	602
Partly corr.	188	48	0	236
Incorrect	90	120	70	280
Avoidance	67	69	6	142
	420	420	420	1260

df =6

The difference between the tests, calculated by means of a chi-square test, is statistically significant at $p < 0.001$.

All three groups performed significantly best on the multiple-choice test, which proves that recognition is easier than production. As the items were presented to the students, access to their meanings was easier than retrieving them from memory. Moreover, they performed significantly better on the gap-filling task, which was mainly lexical (though some items were located between grammar and vocabulary, such as inserting the right preposition) than on the translation task, which was predominantly grammatical (even if, for example, a verb had to be retrieved from the mental lexicon, it had to be given in the right form, for example, the subjunctive). On the one hand, it is possible that grammar is more prone to attrition than vocabulary, but this would require further research. On the other hand, it is possible that grammar requires greater precision and if a structure requires, for example, the subjunctive, an indicative form is incorrect, whereas in the case of vocabulary, a gap can allow several synonyms, their hyperonym, etc., as long as they fit in the context.

Qualitatively, the errors can be said to have been the result of interference from several languages, especially Spanish, but also French and Italian, and, possibly, also a combination of languages, including Polish. However, as the present author remarked elsewhere (Wlosowicz, 2012), in the case of a foreign language distant from the native one, L1 influence

can be subtle, such as the preference of certain structures over others. Some examples of errors in the cued translation task are presented below.

Table 5: Examples of errors in the cued translation task

Target version	Student's version	Problems detected
Se a Sílvia não tivesse recusado, trabalharia agora numa empresa multinacional.	Se a Sílvia não rejeitou, _____ agora numa empresa multinacional.	The past tense (Pretérito Perfeito) instead of the past subjunctive: possible transfer from Polish; inability to retrieve the conditional form (trabalharia).
Se encontrar esse livro, emprestar-lho-ei amanhã.	Se encontro esse livro, o lhe prestarei amanhã.	Interference from Spanish (Si encuentro ese libro, se le prestaré mañana); possibly also from English (If I find this book...).
Enquanto o sol se punha, estavam sentados numa terraça junto à praia.	Mentre o sol tramontava, sentiam-se numa terraça à praia.	Interference from Italian (mentre – while, tramontare – to set); the confusion of two Portuguese verbs: sentar-se (to sit down) and sentir-se (to feel).
Não te preocupes!	Não te preocupa!	Retrieval of the wrong rule in Portuguese: the negative imperative takes the subjunctive form ('não te preocupes' instead of 'não te preocupas'); instead of the subjunctive, the student used the indicative form of the third person singular.

As for transfer from Polish, it was possibly due to the fact that it was the source language of the cued translations. While Portuguese was partly deactivated, the students' native language remained constantly active, which may have made them fall back on L1 routines (cf. Sharwood-Smith, 1986).

In the gap-filling task, the sentences which posed the participants particular difficulty were Sentence 4 (Se _____ quente no domingo, _____ um piquenique), Sentence 6 (Não gosto que vocês _____ palavrões na escola), Sentence 8 (_____-me ver o novo filme sobre Robin dos Bosques) and Sentence 10 (Como te _____ o exame ontem?). Sentence 4 required both the idiomatic use of two verbs (Se **estiver** quente no domingo, **faremos** um piquenique – If it’s warm on Sunday, we’ll have a picnic) and the correct forms (the future subjunctive and the future tense, which is irregular in the case of the verb ‘fazer’. Errors included, for example: “Se **está** (present indicative) quente no domingo, **faziamos** (past tense, also used as the second conditional) um piquenique.”

Sentence 6 required the subjunctive: Não gosto que vocês usem (or: digam) palavrões na escola (I disapprove of your using (or: saying) swear words at school). As the participants had only started the subjunctive before the holidays, it posed them problems, just like the translation items which required the subjunctive.

Sentence 8 was idiomatic (Apetece-me ver o novo filme sobre Robin dos Bosques – I feel like seeing the new film about Robin Hood), which proved quite difficult to retrieve and resulted in such errors and non-target responses as: Queria-me ver o novo filme sobre Robin dos Bosques (I would like me to see the new film...) or Deixa-me ver o novo filme sobre Robin dos Bosques (Let me see the new film... - actually, the latter version was accepted, as it was possible in the context).

Finally, Sentence 10 was also idiomatic (Como te correu o exame ontem? – How did you do at the exam yesterday?). However, the participants tended to write: Como te passou o exame ontem?, which was most probably an interference from Spanish (¿Cómo te pasó el examen ayer?)

The multiple-choice test was not very difficult, but Sentences 2 and 7 proved to be quite problematic. In Sentence 2 there were actually two possible options: Quando encontrei a Ana, usava/ vestia sandálias brancas (When I met Ann, she was wearing white sandals). However, the choice of the option “portava” reflected interference from French (“porter”) or from Italian (“portare”), while “trazia” (she was carrying) may have been an overgeneralization based on Polish, which does not differentiate between wearing and carrying (the verb “nosić” has both meanings).

By contrast, Sentence 7 (No verão muita gente gosta de apanhar cogumelos – In summer many people like picking mushrooms) required the collocation “apanhar cogumelos”. However, especially the students of other philologies with Portuguese as an additional language (9 out of 12 chose non-target responses) tended to choose the other options, namely:

“coleccionar”(to collect – theoretically possible, but not idiomatic), “picar” (possibly under the influence of English) and “pegar” (to catch/grab – a loose synonym, but incorrect in the context).

On the other hand, the oral interviews mostly revealed attrition in the form of a loss of fluency, which was also noticed by the students themselves (see below), however, some interference from other languages was also observed.

The signs + and _ _ in the examples indicate the lengths of the pauses: + - a short pause, and _ _ - a medium pause.

Example 1:

eh sou + uma estudante de: + eh + leitetura eh + e língua + ehm + italiana

(er I'm + a student of: + er + literature er + and language + erm + Italian)

The example reflects interference from Italian: 1) an interlingual blend (cf. Dewaele, 1998): “leitetura” instead of “literature”, cf. “letteratura”; 2) sou uma estudante: in Portuguese, professions with the verb “to be” do not require an article, e.g. sou estudante (I am a student; cf. sono una studentessa).

Example 2:

estudo anche inglês + com- + como: + os todos

(I also study English + li- + like + everyone)

“Anche” (also) is a switch into Italian; possibly the unfinished word (com-) was also an interference which the participant managed to control (“come” in Italian, instead of “como” (as) in Portuguese).

Example 3:

queria especialmente visitar eh + eh Lisboa + claro + eh: + e + outras + cidades + mais grandes
acho + como Porto + ou Faro

(I would especially like to visit er + Lisbon + obviously + er + and + other + cities + bigger I think + like Porto + or Faro)

Interference from Spanish includes “outras” instead of “outras” (other) and “mais grandes” instead of “maiores” (cf. más grandes); the omission the article (“o Porto” takes the definite article, unlike other cities) may be either an overgeneralization, or interference from Polish, which has no articles.

Example 4:

agora + gosto d'ameliorai + ameliorar a minha + eh conhecidade deste + hm + desta língua
(now + I like to improve + improve my + er knowledge of this + hm + this language)

“Conhecidade” instead of “conhecimento” (knowledge) is a spontaneous creation in Portuguese, but, possibly, Polish interfered with the speech plan, as in Polish “knowledge” (“wiedza”) is feminine (masculine in Portuguese), while “a language” (“język”) is masculine, that is why the student first wanted to say “deste língua”, but immediately corrected it to “desta língua”.

Example 5:

penso em + traduzir + eh + documentos + leies

(I'm thinking of + translating + er + documents + laws)

Interference from Spanish resulted in the form “leies” instead of ‘leis’, cf. “leyes”.

Finally, as for the students' own perception of the attrition of Portuguese, they mentioned a variety of problems in the questionnaires:

They noticed attrition in the following areas: grammar (33 participants), fluency in oral production (31), vocabulary (30), writing skills (11), auditory comprehension (9), and one person wrote: “all of these, to different degrees” (translation mine). Only two did not report any decrease in language skills. Some of them mentioned particular structures, such as conjuntivo (the subjunctive), past tense forms, conditionals, some vocabulary items, some forms of the imperfect, or grammar in general. One person wrote: “all that I haven't written, I forgot it over the summer holidays” (translation mine).

4. Conclusions:

To answer the research questions, first, apart from the multiple-choice test, which required recognition rather than retrieval from memory, there were more incorrect and partly correct answers and avoidance, than correct ones. Quite a lot of interference was observed, from other Romance languages, especially from Spanish, but also French and Italian, as well as from Polish and possibly from English (the errors in the conditionals, such as “se encontro esse livro” may have been due to interference from Spanish or to combined interference from Spanish and English). It is possible that English, as the foreign language they have studied and/or used the longest, plays a special role in the participants' language repertoires. Even though it cannot serve as a source of lexical transfer, it may be a point of reference at the

grammatical level, and transfer from Spanish which is also confirmed by the existence of a similar structure in English may seem to the learner more likely to be correct. However, Polish, as the native language, also remains active and is difficult to inhibit, that is why the participants sometimes fell back on L1 routines, probably without even realising it.

Second, attrition can be observed in all areas, including fluency, pronunciation (some Portuguese words, e.g. “especialmente”, were pronounced the Spanish way), grammar, vocabulary and, as the students indicated, also writing skills and listening comprehension. However, it can be assumed that this attrition is only temporary, that is, it is reflected in performance, which is more prone to interference, but the underlying competence may not have been affected. In fact, some of the students who did not remember how to form the subjunctive at least wrote the word “conjuntivo” next to the sentences which required it, so they remembered the rule, but not the verb forms. As they had only just started studying the subjunctive before the holidays, the difficulty in using it suggests that the “last learned – first forgotten” hypothesis may be true in this case.

Third, the attrition of Portuguese manifests itself, on the one hand, in the decreased availability of words and structures, which is visible not only in the hesitations in speech, but also in the gaps left in the test. On the other hand, the amount of interference from other languages suggests that, while interference leads to attrition, a language which has not been used for some time and has been partly deactivated may be even more prone to interference from languages which remain more active.

Finally, as mentioned above, the students are aware of the attrition process and of the areas it occurs in. The only dubious cases are the two participants who did not indicate any decrease in language skills. The lack of attrition is quite unlikely; rather, it is possible that either they did not monitor their production well enough, or they lacked metalinguistic awareness. In fact, one person had visited Portugal during the summer holidays and worked there as a volunteer on an ecological farm, but she indicated some problems with vocabulary and writing and, rather surprisingly, speaking fluency. It is possible that while working on the farm, unlike at university, she had little opportunity to speak about different topics.

In conclusion, one should agree with Herdina and Jessner (2002: 96) that attrition is reflected mainly in a scatter of performance and that, over such a short period as the summer holidays, it is performance rather than competence that undergoes attrition. In fact, in multilingual systems, attrition can be accelerated by constant cross-linguistic interaction. Given the interference from Spanish and other Romance languages (Italian and French), it can

be supposed that, as two similar languages are coactivated to a comparable degree, they influence and restructure each other more than less similar languages would.

In fact, the whole phenomenon of attrition can be attributed to a decrease in language activation. As the activation of Portuguese items is lower, Spanish (and other) items compete for selection (cf. Green, 1993) and can be overlooked by control mechanisms, which leads to increased interference. It is also possible that not only does attrition increase the activation thresholds of languages, but it also weakens the control mechanisms which keep them apart; to use Green's (1986) terms, attrition depletes the resources necessary for the inhibition of the non-target language. Another possibility is that the tags which indicate which language each item belongs to are also partly deactivated and thus less available, that is why an item from a non-target language may slip in.

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