

CROSS-LINGUISTIC INFLUENCE AT LEXICAL LEVEL. A STUDY WITH MOROCCAN LEARNERS OF PORTUGUESE AS AN L3/LN

Jorge Pinto

Centro de Linguística da Universidade de Lisboa

jalpinto@clul.ul.pt

RESUMEN

Hemos asistido desde comienzos del siglo a un creciente interés por el plurilingüismo y, en consecuencia, a una expansión de la investigación sobre la adquisición de una tercera lengua o adicional. Algunos de los estudios publicados muestran las diferencias entre la adquisición de una L2 y de una L3, marcando un nuevo campo de investigación. En este contexto, el objetivo de este artículo es presentar un estudio sobre la adquisición del léxico del portugués como una L3/Ln por estudiantes universitarios marroquíes, que ya están insertados en un contexto plurilingüe, en el cual se señala la importancia de la transferencia de una segunda lengua adquirida previamente a la nueva interlengua y se subrayan los factores que influyen en esta transferencia. Los resultados nos muestran que la L1 no siempre tiene un papel preponderante en la adquisición multilingüe, especialmente en el léxico.

Palabras clave: adquisición de una tercera o lengua adicional; transferencia de léxico; plurilingüismo; portugués como lengua extranjera

ABSTRACT

Since the beginning of the century we have been assisting to an increasing interest in multilingualism and, therefore, a spread in the research about a third or an additional language acquisition process. Some of the published studies highlight the differences between the acquisition of an L2 and an L3 and bring about a new research area. In this context, the aim of this article is to present a study about the lexical acquisition of Portuguese as an L3/Ln by Moroccan university students, who are already inserted in a multilingual context. The importance of transfer from a previously acquired second language to the new interlanguage and the factors that influence this transfer will be pointed out in the above mentioned study, whose findings show us that the L1 does not always have a prevailing role in the multilingual acquisition, especially in lexicon.

Keywords: acquisition of a third or additional language; lexical transfer; multilingualism; Portuguese as a foreign language

1. INTRODUCTION

The source-language transfer to the interlanguage of a speaker who learns a first foreign language is clearly their mother tongue. However, identifying the source-language transfer to the interlanguage of a multilingual speaker is not so obvious. As a matter of fact, a student, who already masters at least one more language, in addition to their L1, has a distinct knowledge in comparison to other students that start learning their first second language. The former has already developed his language awareness and has acquired linguistic and learning strategies that will facilitate his access to the L3 (González, Guillén & Vez, 2010; Rothman, Iverson & Judy, 2011), being, therefore, more experienced and possessing a different kind of competence (Cook, 1996; Jessner, 1999; Grosjean, 2001).

It is in this context that we must analyze the process of how a multilingual speaker acquires Portuguese as a Foreign Language (PFL), always taking into account their contact with other languages which are an important part of their linguistic repertoire. The acquisition of PFL, in this sense, is done by establishing connections with the knowledge previously acquired in other languages and building new knowledge in the new target language.

With this article, we intend to present a study carried out with mostly multilingual Moroccan students, who acquire Portuguese as an L3/L_n. These students are speakers of Arabic (of its two varieties - standard and dialectal), who were (and still are) exposed to more than a foreign language, in formal and informal learning contexts. We will analyze data collected from written productions of 31 students majoring in Portuguese Studies at the Faculty of Arts of Rabat, aiming to verify which language(s) previously acquired is (are) the source of language transfer that support(s) students in building their interlanguage.

2. THE ACQUISITION OF L3/L_N: BRIEF THEORETICAL CONSIDERATIONS

In the last decade, several studies have emerged that attempt to explain the process of acquiring an L3/L_n and to demonstrate the differences that exist regarding the acquisition of an L2 (Jessner, 1999; Herdina & Jessner, 2000; Cenoz, 2001, 2003; Cenoz,

Hufeisen & Jessner, 2001), which until now, from the perspective of some Anglo-Saxon authors, was considered as any other language acquired after the mother tongue, and could therefore refer to the acquisition of a second, third or fourth language. So, as the former authors, we believe that a multilingual student has a different knowledge from a student of an L2. The latter is a beginner in the learning of a second language and only has his L1 as a reference point. The former, when he starts learning an L3/Ln, already knows the learning process of one (or more) foreign language and therefore already has a different kind of linguistic awareness and some strategies that help him build his new knowledge of the target language.

In our case, throughout this work, we will opt for the designation of acquisition of a third language or an additional language (L3/Ln), referring to "all languages beyond the L2 without giving preference to any particular language." (De Angelis, 2008: 11). This designation allows us to bring together, in a single group, learners of an L3/Ln who have already acquired at least two languages and therefore have a greater metalinguistic knowledge and greater experience in the formal learning of languages than a learner of an L2. In these cases, it seems clear that a student, who has already acquired, at least, one second language, will try to compensate the lack of knowledge in the learning of the L3/Ln using not only his L1 but also, in most cases, his L2.

A few years ago, Odlin (1989: 27) already argued that in the acquisition of a new foreign language the interlanguage was the result of "(...) similarities and differences between the target language and any other language that has been previously (and perhaps imperfectly) acquired", taking into consideration both the knowledge of the mother tongue and of any other(s) non native language(s). Later, Sharwood Smith (1994) also included in his definition of transfer the influence of the L1 and of any other languages previously acquired in the learning of a new foreign language. Some more recent studies (e.g. De Angelis & Selinker, 2001; Hammarberg, 2001; Ringbom, 2001; Jessner, 2008; Molnár, 2008) have even proved that transfers might occur mainly from the L2 and not from the L1. In these cases, it is interesting to notice that during the production of an L3 a student often produces forms of interlanguage that are partially or completely forms of the L2.

(...) the active language with the highest level of activation is the preferred source of lexical information. Access to lemmas of languages that have a lower level of activation is partially blocked. It appears that the L1 is not necessarily always the dominant active language and that access to its lemmas could accordingly be limited (Dewaele, 1998: 488)

When students have previously acquired more than one language, this fact makes the acquisition process of an L3/Ln more complex than that of the acquisition of an L2. They "(...) have more sources for initial state hypotheses than a monolingual L2 learner" (Rothman, Iverson e Judy, op. cit.: 7). As a consequence, a multilingual student has a different skill, which must be considered as (Coste, 2001):

- une compétence complexe ;
- une compétence plurielle en ce qu'elle rassemble et met en relation les composantes d'un répertoire qui peut être déséquilibré et comporter des (sous) compétences "partielles";
- une compétence "unitaire" en ce qu'elle permet justement, par des capacités transversales, de gérer en synchronie et en diachronie ledit répertoire, en le faisant évoluer et en établissant des rapports entre ses différentes composantes.

The lexical transfer is an essential cognitive process in the learning of a new language. Students establish equivalence relations between words of the previously acquired languages and those of the target language and, based on this interlinguistic identification, they transfer lexical items they think are similar in the languages in comparison.

The lexical transfer may be manifested in two ways: through a transfer of form and a transfer of meaning (De Angelis & Selinker, 2001; Ringbom, op. cit.). The first is the use of words from other languages previously acquired, adapted or not to the structures of the words of the target language in the production of the L3/Ln. The second type corresponds to the transfer of semantic patterns of lexical units of the mother tongue and/or of the non-native language(s) for the units of the target language in the form of semantic calques.

3. FACTORS AFFECTING LEXICAL TRANSFER: FROM THE L2 TO THE L3/LN

Although many studies have shown that the mother tongue is a privileged source of transfer, others (e.g. Dewaele, 1998; Williams & Hammarberg, 1998) have equally demonstrated that other languages may also play an important role in the acquisition of an L3 and establish themselves as the main source of transfer. The literature in this field testifies that there are some factors that affect the transfer of a second language to the target language. For these authors, foreign languages, besides the L1, are also considered potential sources of language transfer. In fact, some studies prove that sometimes transfers occur from a non-native language and not from the mother tongue. (Hammarberg, 2001; Ringbom, op. cit.; Jessner, 2008; Molnár, 2008).

As a consequence, we have decided to make a review of the factors that we consider relevant for the study in question.

Psychotypology

This factor is one of the most relevant regarding the possibility of language transfer. The typological proximity between an L2 and an L3 facilitates the transfer, especially if the L1 is more distant, as some studies addressing the role of typology in the acquisition of an L3 have proved (Williams & Hammarberg, op. cit.; Cenoz, 2001; Hammarberg, op. cit.; Ringbom, op. cit.). Therefore, in the cases where the L1 is typologically distant from the L3, students tend to activate their knowledge of other language(s) previously acquired, closer to the target language, and to make transfers from the one which is perceived as being the closest, which may or may not correspond to the distance that effectively exists between them (De Angelis, op. cit.).

Exposure to non-native languages

Some authors argue that the recent use of certain non-native language facilitates the occurrence of transfer to the target language, given the easy access to the linguistic information stored in the speaker's memory (cf. Poulisse, 1997). Williams and Hammarberg's (op. cit.) study considers the recent use of a non-native language as a major factor that influences the transfer in the process of the L3 production. Hammarberg (op. cit.: 23) advocates that the "L2 is activated more easily if the learner has used it recently and thus maintained easy access to it".

Language proficiency

In the literature, this factor is approached mainly taking into account the level of proficiency in the target language. As far as the level of proficiency in the source language(s) is concerned, there is still very limited knowledge of how it affects the process of language transfer since there are no studies that analyze the level of competence in the source language(s) as a central factor. In the first case, Hammarberg (op. cit.) and Ringbom (op. cit.) claim that the transfer of a non-native language to the L3 is favored if the student has a high proficiency in the L2, especially if this language was acquired and used in real contexts of communication. Some authors argue, too, that the transfer tends to occur in the early stages of acquisition while the students' knowledge of the target language is still low and fragmented and they therefore need to fill the language gaps they feel.

The 'foreign-ness' of words

De Angelis and Selinker (op. cit.) consider that the possible association in the mind of the multilingual student of the character of foreignness of words may be a factor affecting language transfer since this association will have an impact on the production of the interlanguage. According to these authors, students may prefer transferring lexicon regarded as foreigner to the L3 to using lexicon from their mother tongue. In this sense, De Angelis and Selinker believe that there is a possible cognitive mode called 'talk foreign' or 'foreign language mode' that facilitates the process of language transfer from non-native languages.

4. THE STUDY

4.1 Methodology: subjects and corpus

Thirty-one students (70% of the registered students) majoring in Portuguese Studies at the Faculty of Arts of Rabat took part in this study. By applying a first questionnaire, it was possible to carry out a sociolinguistic characterization of the subjects, particularly in what concerns their linguistic background.

As you can see in Table 1, what all the students have in common is the fact that they already reveal language skills in French, the first or the privileged foreign language in the country, which is the result both of formal learning, since it is present from Elementary school up to the end of Secondary School, and of an informal one, as it is used in Moroccan everyday life, especially in

urban centers. However, and contrary to what one would expect, this language does not represent the FL with more proficiency for all of them, because only 51,5% indicated it as such. Of the remaining students, 35.5% considered it to be Spanish, 6.5% English, 3.25% German and 3.25% did not answer.

	FL with the highest proficiency				
	French	Spanish	English	German	NA
1 st grade (n = 13)	6	6	0	0	1
2 nd grade (n = 9)	4	3	2	0	0
3 rd grade (n = 9)	6	2	0	1	0

Table 1 Proficiency in Foreign Languages

Students of Portuguese as an FL in Morocco are essentially found at the university level. Most of them, when they start learning this language, already have knowledge of other foreign languages, not to mention their mother tongue, especially of French and Spanish but also of English, which ends up reflecting in their acquisition of the new target language. As you can see at Table 2, the contact with Portuguese is made at an advanced stage of training for these students, being the third or fourth language acquired, which must be taken into account when analyzing the results. They are, thus, mostly multilingual students.

	Number of FL spoken		
	1	2	3
1 st grade (n = 13)	0	9	4
2 nd grade (n = 9)	2	5	2
3 rd grade (n = 9)	0	4	5

Table 2 Number of Foreign languages spoken besides Portuguese

All the students involved were asked to fill in a questionnaire of sociolinguistic profile and to write a text, selecting one of four given stimuli. These stimuli have been selected taking into account the different language levels and their inherent level of difficulty. However, the subjects had total freedom to choose the stimulus.

Based on the analysis of the collected written corpus, consisting of 31 language productions, corresponding to the number of students involved in the study, in a total of 7621 words (Grade 1 – 2312, Grade 2 – 2327, Grade 3 – 2982), we intend to ascertain the

influences that other already acquired languages have in the learning process of Portuguese as an FL. We thus put forward the hypothesis that the frequency of transfers from non-native languages are more likely to be greater than from Arabic. In order to test it, we made a list of all transfers made by the students at the lexicon level, because we believe, just like Molnár (op. cit.), that it plays an important role in language learning and that the transfer from previously acquired languages is more evident in this case.

4.2 Results

When analyzing the data, we found out that all transfers were made from the two most dominant foreign languages in the group (French and Spanish).

	Number of words transferred		Number of subjects who transfer
	Content words	Function words	
1 st grade	23	4	10
2 nd grade	18	1	6
3 rd grade	6	2	5
Total	47	7	21

Table 3 Total of lexical transfer

Table 3 shows us that the greatest amount of transfers takes place in the first year and that it gradually decreases throughout the degree as a consequence of greater language proficiency that students keep acquiring, thus progressively separating the target languages. Although the number of students has practically remained the same from the second to the third year, the number of transfers has declined by over half (19 to 8). We can also note that the number of content words transferred (87%) is much higher than the number of functional words (13%).

	French		Spanish		Total
	Content words	Function words	Content words	Function words	
1 st grade	13	1	10	3	27
2 nd grade	11	0	7	1	19
3 rd grade	1	2	5	0	8
Total	25	3	22	4	54

Table 4 Source language of transfer

From the total of transfers, we found out that 48% had Spanish as the source language and 52% the French. The results in Table 4, thus, prove that these two languages are both equally used as a source of transfer and that there is no large discrepancy between the number of transfers from each one of them throughout the three years. Somehow, these data are related to the values shown in Table 1, even though three students had referred to have a greater proficiency in other languages than French and Spanish, a fact which could not to be verified since no influence from those other source languages was to be found.

In the analyzed texts, we took into account the lexical adequacy, the spelling and the morphology of words; we detected several hybrid forms composed from the French and Spanish vocabulary that resemble Portuguese, but whose spelling does not match any of them. This is exemplified in these two tables (Tables 5 & 6).

	Hybrid	French word	Portuguese word
1 st grade	portugaisa	portugaise	portuguesa
2 nd grade	prononçar	prononcer	pronunciar
3 rd grade	europianos	européens	européus

Table 5 Hybrids produced from french

	Hybrid	Spanish word	Portuguese word
1 st grade	musulmanos	musulmanes	muçulmanos
2 nd grade	extranjeiro	extranjero	estrangeiro
3 rd grade	despoblação	despoblación	despovoação

Table 6 Hybrid produced from spanish

In both these cases, there is a neological creation formed by elements corresponding to the two languages in contact. The students already reveal some knowledge of the structure of words in Portuguese and of the correct use of some word endings. However, their proficiency in Portuguese is still low, whereby the student produces, unintentionally, interlanguage forms that consist in the combination of partial segments of the L2 and the L3/Ln, attempts of phonological and morphological adaption to Portuguese, as their spelling reveals.

At an idiosyncratic level, we also see that Spanish and French are the two main sources of transfer, existing, in this case, a predominance of the former over the latter.

- (i) Complete language switches from French
 - "Há algum classificação da língua portuguesa *selon* o critério..." (1st grade)
 - "...e dar à pessoa um vida seguro com *justice* social..." (2nd grade)
 - "... Rabat começa a *souffrir* de problemas de trânsito..." (3rd grade)

- (ii) Complete language switches from Spanish
 - "*Resumen* do vídeo" (1st grade)
 - "... mas não existe nenhuma *regla*..." (2nd grade)
 - "... os *barrios* com as mesquitas antigas." (3rd grade)

We also detected some semantic calques made from the French, as it can be seen in the following examples.

- (iii) Calques from French
 - "... e alguns países de África que estavam colonizados por Portugal naquela época, é *dizer* (*c'est-à-dire*) os países que têm língua portuguesa como língua oficial..." (1st grade)
 - "... tanto que ela *soubera* (*avait subi*) muita invasão no período pré-românico..." (1st grade)
 - "... onde há aqui as boas *vilas* (*villes*) equipadas com as boas infra-estruturas..." (3rd grade)

- (iv) Calques from Spanish
 - "... também musulmanos *aportaram* (*aportaron*) elementos árabes na língua portuguesa..." (1st grade)
 - "... temos uma casa de 5 habitações (*habitaciones*)..." (2nd grade)

5. CONCLUSIONS

Given the large number of words that constitute the corpora of the three years of the degree, I would like to emphasize the fact that the number of lexical transfers (morphological) is quite low,

even in the productions of the first year students, which shows that their lexical knowledge is quite large.

The obtained results also allow us to infer that students are aware that French and Spanish are the two languages that are typologically closer to Portuguese and therefore they are the ones students most resort to to supply the flaws in the production of the latter. They are also aware that the lexicon and structures of Arabic are distant from Portuguese, because the former is a Semitic language, while the latter is a Romance one, such as Spanish and French. Therefore, it seems that the typological proximity is a factor that affects the transfer that these students make to Portuguese. That is way we share Hammarberg's view that (op. cit.: 22), "influence from L2 is favored if L2 is typologically close to L3, especially if L1 is more distant".

Other factors that influence the transfer of these students are their exposure to non-native languages and the "foreignness" of words. The first one results from the fact that French has a privileged status in the country, where the Moroccan Administration is in many aspects bilingual, its teaching is compulsory in the Moroccan education system and higher education is mostly done in this language; it is also a consequence of the fact that a great number of students already have a degree in Hispanic Studies. There is therefore a constant contact with French and a quite frequent one with Spanish, which enhances the transfer to Portuguese (Poulisse, op. cit.; Williams & Hammarberg, op. cit.; Hammarberg, op. cit.).

The second factor, influenced by the typological distance between the L1, L2 and L3/Ln, reduces the possibility of transfer from Arabic, giving the other already acquired languages the so-called character of "foreignness" that fosters the transfer of these languages to the target language. Proficiency in L3 is another factor to be taken into account, since these students' proficiency in Portuguese is still at a lower level when compared to the level of the other acquired foreign language(s), thus creating the perfect conditions for the transfers from this (these) language(s) to the L3 to take place more easily.

REFERENCES

- Cenoz, J. (2001). The effect of linguistic distance, L2 status and age on cross-linguistic influence in third language acquisition. In J. Cenoz, B. Hefesen & U. Jessner (eds.), *Cross-linguistic Influence in Third Language Acquisition: Psycholinguistic Perspectives*. Clevedon: Multilingual Matters, pp. 8-20.
- Cenoz, J. (2003). The additive effect of bilingualism on third language acquisition: a review. *The International Journal of Bilingualism*, 7 (1), 1-5.
- Cenoz, J.; Hefesen, B. & Jessner, U. (eds.) (2003). *Cross-linguistic Influence in Third Language Acquisition: Psycholinguistic Perspectives*. Clevedon: Multilingual Matters.
- Coste, D. (2001). La notion de compétences plurilingue et ses implications possibles. In *Actes du séminaire - L'enseignement des langues vivantes. Perspectives* (pp. 29-38). Paris: Direction de l'Enseignement scolaire/ CRDP Versailles.
- Cook, V. (1996). Competence and multi-competence. In G. Brown, K. Malmkjaer & J. Williams (eds.), *Performance and Competence in Second Language Acquisition*. Cambridge: Cambridge University Press, pp. 57-69.
- De Angelis, G. (2008). *Third Additional Language Acquisition*. Clevedon: Multilingual Matters.
- De Angelis, G. & Selinker, L. (2001). Interlanguage Transfer and Competing Linguistic Systems in the Multilingual Mind. In J. Cenoz, B. Hefesen & U. Jessner (eds.), *Cross-linguistic Influence in Third Language Acquisition: Psycholinguistic Perspectives*. Clevedon: Multilingual Matters, pp. 42-58.
- Dewaele, J-M. (1998). Lexical inventions: French interlanguage as L2 versus L3. *Applied Linguistics*, 19, 471-90.
- González Piñeiro, M.; Guillén Díaz, C. & Vez, J. M. (2010). *Didáctica de las lenguas modernas. Competencia plurilingüe e intercultural*. Madrid: Editorial Síntesis.
- Grosjean, F. (2001). The Bilingual's Language Modes. In J.L. Nicol (ed.), *One Mind, Two Languages: Bilingual Languages Processing*. Oxford: Blackwell, pp. 1-22.
- Hammarberg, B. (2001). Roles of L1 and L2 in L3 Production and Acquisition. In J. Cenoz, B. Hefesen & U. Jessner (eds.), *Cross-*

linguistic Influence in Third Language Acquisition: Psycholinguistic Perspectives. Clevedon: Multilingual Matters, pp. 21-41.

- Herdina, P. & Jessner, U. (2000). The dynamics of a third language acquisition. In J. Cenoz & U. Jessner (eds.), *English in Europe – The Acquisition of a Third Language*. Clevedon: Multilingual Matters, pp. 84-98.
- Jessner, U. (1999). Metalinguistic Awareness in Multilinguals: Cognitive Aspects of Third Language Learning. *Language Awareness*, 8 (3&4), 201-209.
- Jessner, U. (2008). Teaching third languages: findings, trends and challenges. *Language Teaching*, 41 (1), 15-56.
- Molnár, T. (2010). Second language versus third language vocabulary acquisition: A comparison of the English lexical competence of monolingual and bilingual students. *Toronto Working Papers in Linguistics (TWPL)*, 33. Available in: <http://twpl.library.utoronto.ca/index.php/twpl/article/view/6893/12728>
- Odlin, T. (1989). *Language transfer. Cross-linguistic Influence in Language Learning*. Cambridge: Cambridge University Press.
- Poullisse, N. (1997). Language production in bilinguals. In A. M. B. de Groot & J. Kroll (eds.), *Tutorials in Bilingualism. Psycholinguistic Perspectives*. Mahwah, NJ: Lawrence Erlbaum Associates, pp. 201-224.
- Ringbom, H. (2001). Lexical Transfer in L3 Production. J. Cenoz, B. Hefisen & U. Jessner (eds.), *Cross-linguistic Influence in Third Language Acquisition: Psycholinguistic Perspectives*. Clevedon: Multilingual Matters, pp. 59-68.
- Rothman, J.; Iverson, M. & Judy, T. (2011). Some notes on the generative study of L3 acquisition". *Second Language Research*, 27 (1), 5-19.
- Sharwood Smith, M. (1994). *Second Language Acquisition: Theoretical Foundations*. London: Longman. London: Longman.
- Williams, S. & Hammarberg, B. (1998). Language switches in L3 production: Implications for a polyglot speaking model. *Applied Linguistics*, 19, 295-333.