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Grammatical and lexical error recognition in l3: some insights into multilingual proficiency

Abstract

The purpose of the paper is to present, on the basis of a grammaticality judgement test and a lexical correctness judgement task in French as L3, some insights into multilingual proficiency, understood as the sum of multilingual linguistic competence and the ability to use that competence (Herdina & Jessner, 2002). Special attention is paid to cross-linguistic interaction in various directions and to insights into multilingual representation and processing provided by such interaction. The results provide evidence of the complex and dynamic character of multilingual proficiency as well as some indications of differences in the representation and/or processing of grammar and vocabulary.

Keywords: multilingual proficiency, cross-linguistic interaction, grammaticality judgement, error identification and correction

1. Introduction

The purpose of the paper is an analysis of third language (L3) learners' recognition and correction of both grammatical and lexical errors in L3 in the language combination Polish (L1) – English (L2) – French (L3). It is based on two studies, one of which focused on grammaticality judgements, whereas the other involved the recognition of lexical errors. However, since grammar is largely lexicalized (Singleton, 2000: 24-28) and, simultaneously, the syntactic properties of words are stored in the mental lexicon (Levelt, 1989; Herwig, 2001), lexical competence and grammatical competence are interconnected rather than separate. Therefore, lexical competence can also be regarded as a part of linguistic competence which can be studied by means of judgements of correctness. In fact, some of the grammatical structures tested here are borderline cases between grammar and vocabulary because the choice of the right structure (for example, an infinitival construction, a gerund or a clause) depends on the syntactic properties of a particular verb.

Special attention is paid here to cross-linguistic interaction (term introduced by Herdina & Jessner, 2002: 29, see Section 2.2. below), especially transfer from L2 into L3, as it constitutes a window on the organization and functioning of multilingual

systems. For this reason, part of the test sentences were constructed in such a way as to allow the investigation of the participants' ability to distinguish between L2- and L3-specific structures, idioms and meanings. They thus included, for example, word-for-word translations of L2 structures and idioms, or false friends used in L3 in their L2 sense. It was assumed that the acceptance of such sentences as correct would be a proof of interlanguage transfer (term introduced by de Angelis & Selinker, 2001, to describe transfer from one interlanguage, here L2, into another, here L3), but apart from being a strategy, such transfer can be a reflection of cross-linguistic interaction and the dynamic character of multilingual competence (Herdina & Jessner, 2002).

Still, if we distinguish, following Taylor (1988: 166) and Herdina and Jessner (2002: 57), between competence in the Chomskyan sense, or the tacit knowledge of a language (or languages in the case of multilinguals), and proficiency as the ability to use competence, such studies as the present one can provide interesting insights into both multilingual competence and proficiency, including declarative and procedural knowledge as well as strategic behaviour. It was thus attempted to provide insights into both multilingual proficiency and strategy use on the one hand, and into multilingual language representation and processing on the other.

The research questions were as follows:

First, what kind of cross-linguistic interaction can be observed in L3 judgements of correctness and error correction, both at the grammatical and the lexical levels?

Second, is there any difference in the participants' performance on the grammatical and lexical correctness judgement and error correction tasks in the case of well-formed and ill-formed sentences?

Third, what strategies did the participants use while performing the tasks? However, the answer to this question can only be approximate, as it was impossible to create any think-aloud protocols and strategy use can only be inferred from the students' performance on the tasks, including their errors, and from their written comments, for example, "this looks too much like English", which explains why the participant rejected such a sentence.

2. Multicompetence and Multilingual Proficiency

2.1. Foreign Language Competence

Undoubtedly, the linguistic competence of foreign language learners differs from that of native speakers. Still, a learner's language cannot simply be treated as a collection of errors, as it constitutes a system with its own rules, based on target language input, instruction and the learner's own hypotheses. Therefore, Selinker (1972) proposed the notion of interlanguage (IL), which he defined as a "separate linguistic system" underlying "a learner's attempted production of a TL norm"

(Selinker, 1972: 214) and which can be inferred from the learner's observable input. It must therefore be remembered that interlanguage competence cannot be observed directly, but that it can only be reflected in the learner's language production. Thus, errors observable in a learner's speech or writing can reflect some of his or her interlanguage rules, as well as cross-linguistic interaction, as some errors may be due to transfer from one language to another (strategic transfer in a given situation or rules transferred, for example, from L1 to L2 and incorporated into L2 competence) or to interference between two or more languages. On the other hand, avoidance, which is often present in interlanguage production, does not reveal much about interlanguage competence, unless it is accompanied by a relevant comment, for example, "one doesn't say *successful*", pronounced with French vowels and stress, in the corpus collected for the present author's doctoral thesis (Wlosowicz, 2011, translation mine), which reflected a student's avoidance of a calque. Therefore, in the case of avoidance, one can often not be sure whether a learner does not know the target word or structure, or whether he or she tries to avoid transferring, for instance, an L1 structure, because he or she does not perceive any (or, arguably, enough) similarity, between L1 and L2 (Ringbom, 1987: 50-51).

However, unlike an adult native speaker's competence, interlanguage competence is still in the process of development and restructuring. Whereas in native speakers variation depends on the relationship between form and function, in interlanguage there is 'both free variation, when a new form is used together with an old form to perform a single function, and systematic variation, when the new and old forms are assigned to different functions' (Ellis, 1990: 390).

Indeed, as languages are learnt and used for particular communicative purposes, linguistic competence is not acquired in isolation, but it is always connected with some ability to use it. Thus, in order to broaden the definition proposed by Chomsky (1965, in Lyons, 1996) which limited competence to the tacit, internalized knowledge of a language, Lyons (1996: 16) proposed a more general definition of competence which takes into account both knowledge and the ability to use it: "Linguistic competence is the knowledge of particular languages, by virtue of which knowledge those who have it are able to produce and understand text in those languages" (Lyons, 1996: 16). It is noteworthy that Lyons's definition takes into account the coexistence of several languages, that is, multilingual rather than monolingual competence.

On the other hand, Taylor (1988) insists on preserving Chomsky's (1965, in Taylor, 1988) original distinction, which excludes from competence the idea of ability. He thus introduces the notion of proficiency, or "the ability to make use of competence" (Taylor, 1988: 166). In his view, "[c]ompetence can be regarded as a static concept, having to do with structure, state, or form, whereas *proficiency* is essentially a dynamic concept, having to do with process and function" (Taylor, 1988:

166). As for performance, Taylor (1988, p. 166) defines it as "what is done when proficiency is put to use."

In a similar vein, in reference to Ellis (1994, p. 720), Herdina and Jessner (2002: 56-57) distinguish between multilingual competence and multilingual proficiency: "[w]hilst competence refers to the knowledge of L2 a learner has internalised, proficiency refers to the learner's ability to use this knowledge for different tasks" (Herdina & Jessner, 2002: 56). However, multilingual proficiency constitutes a derived quantity which is "derivable from individual language competence" (Herdina & Jessner, 2002: 57) and which is, at the same time, 'a hypothetical construct derived from actual performance measured' (Herdina & Jessner, 2002: 57). Even though the point of reference for the evaluation of multilingual proficiency as reflected in speakers' production is necessarily the well-educated native speaker, this does not mean a return to the "double monolingualism" hypothesis (Herdina & Jessner, 2002: 57), as the authors recognize the qualitative differences between monolingual and multilingual systems (Herdina & Jessner, 2002: 89).

It can thus be stated that the possession of linguistic competence does not necessarily imply the ability to use it. In order to explain this difference, several hypotheses have been proposed, including Bialystok and Sharwood-Smith's (1985) distinction between knowledge and control and Krashen's Dual Competence Paradigm (1981, in Tarone, 1983: 147).

According to Krashen (1981 in Tarone, 1983: 156-157), a learner possesses two knowledge systems: acquired knowledge, extracted unconsciously from the input, and learned knowledge, presented in the form of conscious instruction and containing consciously learned grammatical rules. In his view, learned knowledge cannot be used to initiate utterances and is available only as a Monitor, that is, it can serve to monitor the correctness of utterances. He believes learned and acquired knowledge to be distinct systems where, unlike acquired knowledge, learned knowledge can never become part of implicit competence.

In contrast to Krashen, Bialystok and Sharwood-Smith (1985) do not postulate two distinct kinds of knowledge, but instead, they propose a distinction between knowledge (sometimes also referred to as "competence", see Sharwood-Smith, 1986) and control. As Bialystok and Sharwood-Smith (1985: 106) observe, the disparity between a learner's and a native speaker's language proficiency "may arise from (a) differences in the *representations* of linguistic structure, (b) differences in the *procedures for accessing the knowledge*, or (c) *both*." At the same time, second-language acquisition can be explained "in terms of (a) acquisition of the underlying grammar, (b) acquisition of new procedures for retrieval, or (c) both" (Bialystok & Sharwood-Smith, 1985: 106).

However, as Bialystok and Sharwood-Smith (1985: 106) remark, "(a) necessarily precedes (b)", which means that the learner must first know the necessary grammatical forms before learning how to retrieve them effectively.

Like competence, control is also subject to variability (Bialystok & Sharwood-Smith, 1985: 110) and fossilization (Sharwood-Smith, 1986: 17). Thus, according to Sharwood-Smith (1986: 17), the case of the Chinese learner of English described by Krashen (1981) can be explained in terms of the competence/control distinction. Since she was able to correct her errors "by feel", she must have had the necessary competence. However, in spontaneous speech she did not possess enough control and failed to retrieve the correct forms.

In fact, Tarone admits the possibility of internalizing learned knowledge as if it had become acquired. Her Capability Continuum Paradigm shows "how learned structures become acquired" (Tarone, 1983: 158). In order to distinguish between "competence", defined as linguistic knowledge accessible to introspection in the form of grammaticality judgements and the knowledge which underlies learners' language behaviour, Tarone has introduced the notion of capability. She defines capability as "that which underlies, or guides, the regular language behavior of the second-language learner" (Tarone, 1983: 151) and stresses the fact that "'capability' refers *not* to 'linguistic knowledge' which is reflected in grammatical intuitions, but rather refers more broadly to that which underlies *all* regular language behaviour."

Still, regularity in language behaviour does not exclude variability, which, according to Tarone (1983), Bialystok and Sharwood-Smith (1985) and Ellis (1990), constitutes an important feature of interlanguage competence. Tarone's Capability Continuum Paradigm postulates a continuum of styles, from a careful style, in which "the speaker pays the most attention to language form" (Tarone, 1983: 152), through a number of styles including more or less attended speech data, to a vernacular style, which is more pidgin-like and contains unattended speech data. While the careful style is more TL-like (or more NL-like if it is based on transfer from the native language) and can be a source of grammatical intuition data, the vernacular style is the purest form of interlanguage, being the most internally consistent and the least permeable to NL (native language) and TL (target language) influence (p. 155). As for the internalization of interlanguage, Tarone (1983: 155) proposes two means of internalization: either "the learner spontaneously produces simple structures in the vernacular style", or a TL structure is first incorporated into the careful style and gradually moves towards the vernacular style. Simultaneously, it must be remembered that each style performs a particular function and is used in particular contexts. Moreover, interlanguage development involves elaboration and reorganization, and it can take learners some time to discover the constraints on the use of a given form (Ellis, 1990: 390).

Moreover, it must be remembered that language use, whether in a careful or a vernacular style, involves the application of some strategies. However, a careful style can be supposed to involve more strategy use, which can also be assumed to be the case in the present studies. In particular, in studies involving two or more

languages, special attention has to be paid to the use of transfer as a strategy, because there is evidence (for example, Faerch & Kasper, 1983, Ringbom, 1987, Zimmermann, 1999) that learners rely on their earlier language knowledge while learning and using a new language. Such strategic transfer can range from borrowings (adapted to the target language system or not) and calques, through the literal translation of L1 (or, in the case of L3, L2) structures (Ringbom, 1987, Faerch & Kasper, 1983, Sánchez, 2011) to the more subtle preference of structures which resemble those of L1 (Włosowicz, 2012).

However, in order to investigate learners' foreign language competence, one has to be able to tap it somehow. Undoubtedly, a rich source of interlanguage data is spontaneous production, yet it must be remembered that it might not contain more complex or less frequent structures (Tarone, 1983: 142-143). One should therefore collect more specific data, such as grammaticality judgements. Selinker (1972) rejects the use of grammatical intuitions, which, in his view, only provide information about the TL and not the interlanguage, yet other researchers, such as Schachter, Tyson and Diffley (1976, in Tarone, 1983: 146), argue in favour of eliciting grammaticality judgements as a reflection of learners' knowledge. However, as Brown (1996: 195) remarks, grammaticality judgements only reveal learners' propositional or declarative knowledge rather than procedural knowledge, as the learner "tries to match the structure of the target sentence against his or her mental representations of previously encountered structures" (Brown, 1996: 195).

It can therefore be concluded that, though a useful source of information about interlanguage competence, grammaticality judgements must be combined with other data sources, such as spontaneous production, translation, etc. At the same time, it must be remembered that the learning or acquisition of a foreign language involves the restructuring of linguistic competence and qualitative changes in the learner's language system.

3. Qualitative Differences between Monolingual, Bilingual and Multilingual Competence

Generally speaking, bilinguals' and multilinguals' language systems considerably differ from those of monolinguals. On the basis of a large number of studies, Cook (1992: 557) has proposed the notion of multicompetence, or "the compound state of a mind with two grammars". In the case of multilinguals, multicompetence can be defined as the compound state of a mind with two or more grammars, which is actually the definition employed by Cook nowadays (Cook, personal communication on June 16, 2011).

However, as Coppieters (1987) has shown, even if native and near-native speakers seem to be roughly equivalent in language use and proficiency, they differ considerably in grammatical intuitions. As Coppieters (1987: 544) concludes, "the data

indicate that near-native speakers diverge less from native speakers in formal features, such as those currently covered by studies in Universal Grammar, than in 'functional' or 'cognitive' aspects of grammar." At the same time, L1 competence is restructured under the influence of another language. For example, native English speakers who know French differ in their grammaticality judgements from monolingual English speakers (Cook, 1996: 65).

Still, multicompetence in trilinguals must be assumed to be even more complex than in bilinguals. As Klein (1995) has shown, L3 learners are more open to different parameter settings, they construct more powerful grammars than L2 learners do and thus they are able to learn marked structures, such as preposition stranding, more easily. However, for the same reason, trilinguals can also be more tolerant of errors (Cenoz, 2010). An important role is played by lexical knowledge and, as Klein (1995: 452) supposes, "resetting could be propelled by lexical knowledge that may accompany or result from the enhanced cognitive and metalinguistic skills of MIs [multilinguals]."

Access to Universal Grammar (UG) in the acquisition of L2 and further languages has long been open to debate as well. According to some researchers (for example, Schachter, 1990; Bley-Vroman, 1989, in White, 2008: 40), subtle grammatical knowledge, such as constraints on wh- movement, comes from L1 parameter settings and not from UG. However, this could not explain the acquisition of parameter settings which do not exist in L1 (Cook, 1996: 62). According to White (2008, p. 46), the assumption that access to UG in L2 acquisition would necessarily result in the attainment of grammars identical to those of native speakers is a misunderstanding. The fact that L2 grammars are constrained by UG simply means that they are subject to the principles of UG, like all natural languages, but not that they will necessarily be identical to native speakers' grammars (White, 2008: 46).

As for L1 influence, it is not incompatible with UG access either. As the Full Transfer Full Access Hypothesis (Schwartz & Sprouse, 1996, in White, 2008: 46) postulates, at the initial stages of L2 acquisition learners characterize L2 data in terms of the L1 grammar, which constitutes full transfer. Later, on the basis of L2 input, the grammar is revised and, since such revisions are UG-constrained, full access in assumed (White, 2008: 46-47). As White (2008: 47) remarks, "[t]ransfer may be persistent or not, depending on particular linguistic properties and particular language combinations."

In L3 acquisition, the situation is even more complex, as L1 is no longer the only source of transfer, but structures may be transferred from L1, L2 or both, depending on the distance perceived between the languages (De Angelis, 2007, p. 22). In fact, as De Angelis (2005) has shown, there are two constraints, perception of correctness and association of foreignness, which block native language influence in favour of non-native language influence. As for perception of correctness, learners often regard L1 information as incorrect from the start. On the other hand, "association of

foreignness refers to the cognitive association that learners establish between non-native languages, which are assigned the common status of 'foreign languages'" (De Angelis, 2007: 29). As a result, both factors lead to increased acceptance of transfer from non-native languages into the target language (De Angelis, 2007: 29).

At this point, it must be remarked that cross-linguistic influence is dynamic in nature and can take different forms. Therefore, Herdina and Jessner (2002: 29) have proposed the term "cross-linguistic interaction" (CLIN) to incorporate a whole range of phenomena, including transfer, interference, borrowing and code-switching.

It can be concluded that multilingual systems are more complex than monolingual and bilingual ones and that interaction within them is dynamic and often unpredictable. Therefore, in L3 processing not only are there more sources of transfer and interference, but those phenomena can also be more elusive, as their source is not always easy to identify (Heine, 2004). One might argue that error recognition is easier than production, as the subjects do not have to make sentences themselves, but they receive ready-made sentences to evaluate. However, in production they may avoid structures as to whose correctness they are not sure, whereas grammaticality judgements require them to evaluate the correctness of sentences constructed by the researcher. This requires good comprehension, which involves both lexical and syntactic knowledge.

3.1. Comprehension

By and large, reading comprehension starts with the identification of traits and graphemes, followed by that of the graphic representations of words, which is accompanied by the activation of their phonological representations (Perfetti, 1999: 170-171). Subsequently, word meanings are activated (Perfetti, 1999: 180). In other words, word forms activate lexemes, or the parts of lexical entries where their formal properties are stored, and then the lexemes activate the corresponding lemmas, storing the semantic and syntactic properties of words. The lemmas then send activation to the corresponding concepts and, as a certain number of words have been understood, a context is formed which helps to select the appropriate meanings of polysemous words or, in the case of unknown words, to infer their meanings (de Bot, Paribakht & Wesche, 1997: 315-316).

Still, in the case of reading in a foreign language, not all the lexical items are known to the learner and the meanings of some of them need to be inferred. However, as de Bot, Paribakht and Wesche (1997: 317) underline, inferring the meaning of an unknown word requires initial attention to the word form and recognizing it as unknown. For this reason, as Laufer (1997) has shown, deceptively transparent words (for example, "shortcomings", interpreted by some learners as "short visits", Laufer, 1997: 25), idioms, false friends and "synforms" (deceptively similar words, for exam-

ple, "industrial" and "industrious", Laufer, 1997: 26) can seriously distort comprehension, as they seem familiar to the learner, who does not thus try to infer the correct meanings or look them up in a dictionary. The misinterpretation of some words leads to a distortion of the immediate context, which results in the distortion of the larger context and, consequently, in incorrect comprehension (Laufer, 1997: 27).

As word recognition studies (for example, Beauvillain & Grainger, 1987) show, lexical access, at least at the initial stage, is non-selective, which means that words from both L1 and L2 are activated by the input and only later is the non-target word disactivated. In the case of L3, words from all three languages can be coactivated, which has been demonstrated by Dijkstra and Van Hell (2001). However, even though the available context makes it possible to disactivate non-target meanings (for example, the meaning of a false friend), sometimes such meanings persist and distort the subject's comprehension, especially if the subject lacks the motivation to monitor the coherence of his or her interpretation (Wlosowicz, 2011).

A slightly different kind of difficulty is presented by idioms. Even though their comprehension involves individual lexical access (Cacciari & Tabossi, 1988, in Flores d'Arcais, 1993: 84) and syntactic analysis (Flores d'Arcais, 1993: 85), idioms are often opaque and the meaning of an idiom is not the sum of the meanings of its parts. However, as Blair and Harris (1981) have shown, bilinguals have access to the decomposed meanings of idioms, also in the non-target language. Hence, Spanish-English bilinguals were able to understand English sentences containing literal translations of Spanish idioms (e.g. "Jalopy wants to say car in one form of English slang", Blair & Harris, 1981: 461), which were incomprehensible to monolingual English speakers. It can thus be supposed that a similar situation can occur in L3 comprehension, allowing subjects to understand literal translations of L2 idioms.

At the morphosyntactic level, comprehension requires not only the identification of sentence constituents and their functions, but also that of person, number, tense, etc. markings. At the same time, some important semantic information is conveyed by function words, such as prepositions (for example, "I'm afraid for him" vs. "I'm afraid of him"), or the choice between a gerund and an infinitive ("I regret to tell you that" vs. "I regret telling you that"), so the borderline between grammar and vocabulary is not very strict.

As the present author's study on L3 comprehension (Wlosowicz, 2011) shows, the correct identification of words is not enough for adequate comprehension. In fact, even if the subjects recognized a word form as belonging to a particular lexeme (for example, "recyclait" as a form of the verb "recycler" ("recycle" or "retrain") in French), they sometimes failed to recognize the tense, person or number, thus changing the past to the present or the plural to the singular.

This observation provides evidence in favour of distributed representations, as illustrated by Herwig's (2001) model of the multilingual lexicon. According to Her-

wig (2001: 121-123), lexical entries are distributed over a number of nodes containing such properties as semantic quality, metaphorical meaning, extended meaning, semantic roles, morphological specification, word order specification, etc. As the present author's (Wlosowicz, 2011) study indicates, some of those nodes may be more accessible than others. For example, such basic forms as the infinitive or the Simple Present Tense form may be readily available, but less frequent forms, like the subjunctive (especially in French as L3) or irregular past tense forms may not reach a sufficient level of activation to be recognized correctly.

Certainly, syntactic parsing and morphological analysis are not the only sources of difficulty in L3 comprehension. Other frequent sources of problems include, quite predictably, false friends and "synforms", as well as idioms, which, when decomposed and interpreted literally, often resulted in non-target interpretations (Wlosowicz, 2011). However, unlike the L3 comprehension study, which used texts consisting of well-formed sentences, the present study involves the evaluation of both correct and anomalous sentences.

4. The Studies

4.1. The Grammaticality Judgement Task

The study aimed to investigate cross-linguistic interaction between Polish (L1), English (L2) and French (L3) in the recognition of correct as well as erroneous structures in French. It was assumed that the participants' correction of errors and their acceptance of well-formed sentences would reflect, on the one hand, their underlying competence in L3 French and, on the other hand, the interaction between the coactivated structures, where the identification of the errors required not only accessing the structures but also discriminating between the languages to which those structures belonged and controlling interference from the non-target languages. However, as interference is dynamic and non-reducible to a single language and, at the same time, multicompetence presupposes a certain degree of interconnection, the rejection of erroneous structures and the acceptance of correct ones where the difference between the languages is very subtle can be assumed to be very difficult.

4.2. Participants

The task was carried out with 21 subjects whose L1 was Polish, whose L2 was English and whose L3 was French. As students of applied foreign languages at the University of Silesia, they were quite advanced in L2 (approximately C1) and slightly less advanced in L3 (B1-B2), also due to longer learning times. (One of them was not a student, but a doctor of English philology, also relatively fluent in French.)

4.3. Method

The task consisted in judging the correctness of 15 French sentences, nine of which contained errors based on transfer from English and/or Polish, or the use of anomalous French structures (sentences 1, 2, 4, 5, 8, 9, 11, 13, 15), whereas six (sentences 3, 6, 7, 10, 12 and 14) were correct. The study focused on the choice of infinitival, gerundive and subjunctive clauses and prepositional constructions after particular verbs. The list of the sentences is presented in Appendix 1. The well-formed sentences and the possibilities of correcting the ill-formed ones had been consulted with a native speaker of French.

However, apart from classifying the sentences as correct or not, the subjects were asked to correct the incorrect ones. Still, even though some students felt that certain structures were ill-formed, they did not know the correct forms to use in those contexts. Indeed, avoiding a response was often accompanied by a comment indicating that the subject regarded a given structure as incorrect, but he or she did not know how to correct it.

What counted as a correct response was either the non-correction of a well-formed sentence (however, in sentence 7, changing the sentence to an equally correct one had to be accepted, see below) or the appropriate correction of an ill-formed one. On the other hand, replacing a lexical item (for example, from "poster" (to post) to "envoyer" (to send)), or slightly changing the word order (in a way more or less irrelevant to the grammatical correctness of the sentence) was classified as a non-target response.

Furthermore, transfer from L1, L2 or both was defined as the use of a Polish-like or an English-like structure (or "doubly supported interference", Näf & Pfander, 2001) in the "corrected" version of a sentence. However, in some cases, the acceptance of an erroneous sentence was evidence of transfer or interference, as in the example described above. Therefore, some of the responses could fall into two categories, "Error acceptance" and "L2 transfer" (or "L1 transfer", or "L1 or L2 transfer", depending on its possible source), yet in order to avoid confusion and response numbers higher than the number of subjects in the group, the acceptance of L2-based structures as correct was classified as "Error acceptance", whereas changing a French sentence into an English-like one was classified as "L2 transfer".

As for errors in French, those are errors non-attributable to the influence of Polish or English, but rather to overgeneralization or the creation of structures not existing in French. Finally, avoidance was manifested either by no reaction to a sentence or by leaving a sentence uncorrected, albeit with a comment indicating uncertainty, such as: "This sentence is incorrect, but I do not know how to correct it." Part of the results have already been presented in Włosowicz (2012: 138-140), but the focus there was rather on interference at the grammatical level.

4.4. Results

As the results show, the error sources were varied and attributable to several sources, including transfer from L1, from L2 or from L1 and L2 at the same time, as well as intralingual interference between French L3 structures. However, the proportions of correct, incorrect or non-target answers varied from one sentence to another, depending on the structure involved.

The percentages of responses attributable to different information sources are presented in Table 1.

Table 1. The percentages of responses attributable to different information sources

Sentence	Correct Responses (%)	Error acceptance (%)	Non-target (%)	Errors in French (%)	Avoidance (%)	L1 transfer (%)	L2 transfer (%)	L1 and L2 transfer (%)
1		33.33	4.76	38.1	19.05			4.76
2	57.14	19.05	19.05	4.76				
3	47.62		33.33	4.76	14.29			
4		66.67	14.29	14.29	4.76			
5		61.9	28.57		9.52			
6	71.43		14.29	9.52	4.76			
7	90.48		4.76		4.76			
8	4.76	52.38	23.8	9.52	9.52			
9	4.76	19.05	19.05	19.05			38.1	
10	33.33		52.38	4.76	4.76			4.76
11		38.1	9.52	28.57	23.8			
12	71.43		14.29	4.76	9.52			
13	52.38		14.29		9.52		23.8	
14	19.05		9.52	52.38	4.76	4.76	9.52	
15	52.38	4.76	14.29		9.52		19.05	

As the results show, transfer and/or interference were reflected both in the acceptance of structures based on negative transfer (for example, "*Elle a fait ses élèves écrire un conte de fees", instead of "Elle a fait à ses élèves écrire un conte de fées", compare: "She made her pupils write a fairy tale") and in the inappropriate "cor-

rection" of the test sentences. The structures with the highest numbers of correct responses were sentences 7 (19 correct responses, 90.48%), 6, 12 (15 correct responses, or 74.43%, in both cases), 2 (12, or 57.14%), 13 and 15 (11, or 52.38%, in both cases). By contrast, the sentences which were the most prone to error acceptance were sentences 4 (14 (66.67%) subjects accepted it), 5 (13, or 61.9%), 8 (11, or 52.38%) and 11 (8, or 38.1%).

Interestingly enough, sentence 7 (Fumer est interdit ici), was often replaced by the sentence: "Il est interdit de fumer ici" (It is forbidden to smoke here.). Even though the stimulus sentence is acceptable in French, it probably seemed to the participants to be too much like English (Smoking is forbidden here).

Transfer from English was particularly visible in sentences 4, 9, 11, 13 and 15. In sentences 9, 13 and 15, it resulted in the creation of sentences similar to their English translations, whereas in 11 it led to the acceptance of the calque "*Je ne m'attendais pas à lui de refuser mon invitation" (I did not expect him to reject my invitation), instead of correcting it to: "Je ne m'attendais pas à ce qu'il refuse mon invitation". In fact, in sentence 9, the English-like collocation "remercier pour" (to thank for) would have been as correct as the target one, "remercier de", but rather in a context in which the preposition had been followed by a noun (for example, "je te remercie pour ta lettre" – "[I] thank you for your letter"). On the other hand, the target sentence here was: "Je voudrais vous remercier d'avoir traduit ce document" (I would like to thank you for having translated this document). Similarly, the acceptance of sentence 4 (*Elle a fait ses élèves écrire un conte de fées – She made her pupils write a fairy tale; target: Elle a fait à ses élèves écrire un conte de fées) can be assumed to have been caused by the assumption of identity between the French and the English grammatical structures.

In sentence 13, in turn, five subjects retained the structure "*responsable pour" ("responsible for", target: "responsable de"), changing only the verb to a noun (responsable pour ce projet), or adding another noun for stylistic reasons (responsable pour la réalisation de ce projet). Yet, in the same sentence, eleven participants noticed the negative transfer from English and corrected it. One of them even wrote that it was too much like "for".

In 15, eleven participants noticed the negative transfer, whereas four failed to do so, accepting the English-like form "*La prof a dit à Agnès à corriger sa redaction" (The teacher told Agnes to correct her essay) instead of correcting it as: "La prof a dit à Agnès de corriger sa redaction".

On the other hand, transfer from Polish proved quite infrequent and was observable mainly in sentence 5 ("*Je n'ai rien contre laver la vaisselle"; target: "Cela ne me dérange pas de laver la vaisselle" (I do not mind washing the dishes)). In fact, the stimulus sentence was a literal translation from Polish (Nie mam nic przeciwko myciu naczyń). At the same time, four participants thought that the error was lexi-

cal ("faire la vaisselle" would have been more idiomatic) and one of them called it an Anglicism ("to wash the dishes").

In general, the results indicate that the subjects were using both implicit competence and conscious rules. However, in some cases their L3 competence was still not fully internalized or accessible, as the subjects felt there was an error, but they were unable to correct it. At the same time, the results show that L3 processing cannot be isolated from L1 and L2 processing. Even though the grammaticality judgements were expected to concern L3 structures, parsing the sentences and lexical item recognition resulted in the activation of their L1 and L2 lexical and structural equivalents. As the present author has remarked elsewhere, the prevalence of L2 influence on both transfer and the rejection of structures which seemed "too much like English" was probably due to the structures used in the study, which were often deliberately based on similarities or subtle differences between English and French (Włosowicz, 2012: 140), whereas in Polish such structures were inexistent or rare. However, the L2 transfer observed here can also be regarded as evidence in support of De Angelis's (2005) notion of "association of foreignness".

Finally, on the basis of many of the non-target responses it can be supposed that it is easier to notice lexical errors and acceptable (though less frequent or less idiomatic) forms than grammatical errors, including negative transfer based on the syntactic properties of L2 lexical items. For example, in the sentence "*Je me suis rappelé à poster la lettre", even though the verb "poster" (to post) exists in French, one person wrote that it was an Anglicism and changed it to "envoyer" (to send). Similar examples include "faire la vaisselle" (see above) and the replacement of a verb by a noun, for instance, "*Charlotte pense de voyager en Espagne" (target: "Charlotte pense à voyager/pense voyager en Espagne" – Charlotte is thinking of travelling to Spain) changed to: "Charlotte pense au voyage en Espagne" (Charlotte is thinking about the journey to Spain).

Moreover, it can also be supposed that, despite the existence of a lexical-syntactic interface, there are some qualitative differences between lexical and grammatical competence, and lexical competence seems to be more easily available as well. Especially, such lexical properties as spelling and collocations seem to be more readily available than morphosyntactic properties and perhaps more so than grammatical rules, which might be attributed to the fact that lexical properties are more salient (Włosowicz, 2012: 140). On the other hand, even though all grammatical representations are constrained by UG, those of L3 can be more or less influenced by L1 and L2, which participate in processing, as their processing is inseparable.

The numbers of correct, incorrect and non-target responses, as well as instances of avoidance in the case of the well-formed sentences have been compared by means of a chi-square test.

Table 2. The contingency table of correct, incorrect and non-target responses, as well as cases of avoidance in the case of well-formed and ill-formed sentences

	Well-formed sentences	Ill-formed sentences	
Correct responses	70	36	106
Incorrect responses	20	104	124
Non-target responses	27	31	58
Avoidance	9	18	27
	126	189	315

df = 3, p < 0.001, χ^2_{obs} = 60.921, χ^2_{crit} = 16.266 (Brown, 1988: 192), $\chi^2_{obs} > \chi^2_{crit}$

As the results show, not only were there more correct answers in the case of the well-formed sentences and more incorrect and non-target ones, as well as more avoidance in the case of the ill-formed sentences, but the difference actually proved to be statistically significant at p<0.001.

This suggests that recognising a correct structure is easier than identifying an error and correcting it. It is possible that this kind of task reflects multilingual grammatical competence even better than a simple grammaticality judgement test, where participants only have to decide whether a sentence is well-formed or ill-formed, without having to correct it. Not only does one have to tap one's competence to find the L3 structure used in a correct sentence or the L2 structure used in an incorrect L3 sentence, but also to find the target L3 structure if a correction is necessary. This offers therefore an insight into both comprehension and production. Even though the competence underlying comprehension and production is the same, production requires retrieving the target structure, which may not be so easily available, as was visible in the case of the incorrect and the non-target responses to the ill-formed sentences used as stimuli. In fact, such comments as "I don't know how to correct it" suggest that the participant was able to access his or her competence and identify the sentence as incorrect, but he or she was not able to retrieve the correct structure. However, this may also be evidence of access to unconscious, acquired competence: instead of retrieving a consciously learnt rule, the participant intuitively felt that there was something wrong with the sentence. Even so, such intuitions did not have to be correct. For example, in sentence 6 (which was correct), "Pierre rêve de partir enfin en vacances" (Peter is dreaming of going on holiday at last), a participant underlined "enfin" (at last) and wrote: "coś tu nie pasuje" (something seems wrong to me here). This indicates that multilingual competence is indeed dynamic and may contain structures which are not the target L3 structures, but rather an unpredictable result of interaction between L1, L2 and L3. On the other hand, in the case of the well-formed sentences, it was enough to activate the rule or the structure (for example, only the syntactic prop-

erties of the main verb) from the stimulus sentence in long-term memory.

As for the participants' strategies, transfer from Polish and English, as well as the search for the target French structures, must have been to some extent strategic. Especially the rejection of non-finite clauses and their replacement by finite ones (for example, "*La prof a dit à Agnès à corriger sa redaction", changed to: "La prof a dit à Agnès qu'elle doit corriger sa redaction") suggests reliance on L1 Polish as a point of reference, or even L3-L1 translation as a comprehension strategy before correcting the sentence. However, as the students were aware of the fact that some of the L3 sentences contained literal translations of L2 English structures, some of them adopted the strategy of looking for and rejecting everything that seemed "too English" to them.

5. The Lexical Error Recognition Study

The purpose of this study was similar to that of the previous one, as it involved identifying correct and incorrect sentences, yet in this case the errors were lexical and not grammatical. Therefore, the participants were expected to rely on their lexical competence, but it could be assumed that the spread of activation in the multilingual mental lexicon could lead to the coactivation of different lexical entries (for example, a word could activate its false friend in another language, and activation could be spread farther on to words related to the false friend and strengthen the non-target interpretation), thus resulting in interference and, consequently, errors. Moreover, it could be supposed that, in the case of idioms, their meanings would not only be retrieved in the target language, but their constituent words could sent activation to their L1 and/or L2 equivalents, and thus, as in Blair and Harris's (1981) study, the literal English translations of French idioms could be understood and, under the influence of the constantly activated French expressions, the participants could assume that an identical expression existed in English.

5.1. Participants

The recognition of lexical errors in L3 sentences has been tested with twenty-seven participants whose language combination was Polish-English-French at the University of Silesia. The students were considerably advanced in both L2 and L3, though more advanced in L2, as in the grammaticality judgement study (it can be assumed that their L2 levels were B2-C1, and their L3 levels were B1 or B2.

5.2. Method

The task consisted in identifying L3 lexical errors, especially false friends and the literal translations of L2 idioms, correcting them and then translating each sentence into Polish, in order to reveal the subjects' comprehension of the sentences. It was assumed that failure to correct an error could be due to incorrect comprehension and translation into L1 could clarify the sources of such errors (for example, failure to recognize an L2-L3 false friend could be revealed by the use of the non-target equivalent in Polish, see Wlosowicz, 2011).

The task used twenty sentences in each case, five of which (sentences 3, 8, 10, 15 and 18) were correct and fifteen were anomalous. Sentences 1, 4, 5, 6, 7, 9, 14 and 19 contained French-English false friends, sentences 2, 11, 16 and 20 contained literal translations of English collocations into French, and sentences 12, 13 and 17 contained literal translations of English idioms. The sentences are listed in Appendix 2.

Unlike in the previous study, the emphasis was on lexis and, as the results indicate, the use of false friends, idioms and some language-specific collocations renders the choice of the right lexical items more difficult. This indicates that similarity of form may lead to stronger coactivation of competing items (Green, 1993), thus increasing the risk of selecting a non-target item. However, depending on the subjects' attention to form, while some subjects may readily accept false friends, others may reject correct L3 words which too strongly resemble their L2 equivalents.

The responses were classified as follows: The "correct" category included sentences which were correctly identified as correct or incorrect and, if incorrect, properly corrected, and the translation into L1 was acceptable. 'Partly correct' meant, for example, that an error was identified but not corrected, or a sentence was identified as incorrect and corrected, but there was a small mistake in the translation into Polish. The incorrect responses, in turn, either involved accepting an error as a correct expression, or rejecting a correct sentence. Even if a sentence was not marked as correct (e.g. by ticking it or putting "O.K." next to it), a translation which treated a false friend as an equivalent or the literal translation of an English idiom (literally translated into French in the stimulus sentence) revealed that the response was incorrect. Also in the "incorrect" category, some of the subjects' responses were non-target ones which were due to a misinterpretation of the test sentences or the replacement of one correct item by another. For example, nine subjects replaced the verb form "requiert" (requires) by "exige" in sentence 3, probably because "requiert" looked too much like its English counterpart. On the other hand, responses where the subjects underlined some words but added such comments as "I am not sure" or a question mark were classified as "unsure". Finally, "avoidance" was not only the fact of not attempting to find the error and correct the sentence, but also translating the sentence only partly into Polish, which indicated that the target word or expression

had not been understood, for example. "*La grand-mère regardait ses petits-enfants avec un sourire bénévole" (target: "La grand-mère regardait ses petits-enfants avec un sourire bienveillant"- 'The grandmother was looking at her grandchildren with a kind-hearted/benevolent smile'), translated as: "Babcia patrzyła na swoje wnuki z uśmiechem" (The grandmother was looking at her grandchildren with a smile). In fact, some of the responses were difficult to classify because, for example, underlining a word could mean the subject's uncertainty as to its correctness or meaning. Therefore, underlined words left without any correction or comment were classified as "avoidance", unless there was evidence to the contrary (for example, the subject's translation indicated the acceptance of a false friend, in which case the response was classified as 'incorrect'). The results are presented in Table 3 below.

5.3. Results

As can be seen in Table 3 below, the participants' responses varied considerably, but, in fact, they were often incorrect. In fact, while correct answers were not always given in response to a sentence, incorrect ones occurred in response to all the sentences, which suggests that cross-linguistic interaction in the multilingual mental lexicon is inevitable and can indeed be very complex.

Table 3. The results of the lexical correctness judgement and translation task

Sentence	Correct (%)	Incorrect (%)	Partly correct (%)	Unsure (%)	Avoidance (%)
1		66.67	25.93	7.4	
2	3.7	70.37	7.4	11.11	7.4
3	40.74	55.56		3.7	
4	55.56	29.63		7.4	7.4
5		66.67	3.7	3.7	25.93
6	25.93	51.85	22.22		
7	3.7	48.15	14.81	3.7	29.63
8	22.22	62.96	3.7		11.11
9	25.93	59.26	11.11		3.7
10	62.96	22.22	7.4		7.4
11	11.11	85.19			3.7
12		62.96	29.63		7.4
13		40.74	11.11	3.7	44.44
14	48.15	33.33	14.81		3.7
15	37.04	40.74	3.7		18.52

16	59.26	14.81	14.81	3.7	7.4
17	14.81	29.63	33.33	11.11	11.11
18	55.56	11.11	7.4	3.7	22.22
19	18.52	51.85	18.52		11.11
20	18.52	77.78			3.7

As the results show, the most correct responses were provided in the case of sentences 10 (62.96%), 16 (59.26%), 4 (55.56%) and 18 (55.56%). Sentence 10 ("Madame Labonne est très cultivée. Elle lit beaucoup et participe à de nombreuses manifestations culturelles." – "Mrs Labonne is [very] cultured. She reads a lot and participates in numerous cultural events") proved to be quite easy. Even though it could be supposed that the students would reject "manifestations culturelles" as incorrect or translate it as "manifestacje kulturalne" (literally: cultural manifestations), but that was not the case, as the majority of them translated the expression as "wydarzenia kulturalne" (cultural events). On the other hand, the negative L2 transfer in sentences 16 ("*Le patient est déjà au théâtre d'opérations", target: "Le patient est déjà à la sale d'opérations" – "The patient is already in the operating theatre") and 4 ("*Cet exercice est très aisé: il faut juste rajouter quelques terminaisons", target: "Cet exercice est très facile…" – "This exercise is very easy: one only has to add a few endings") was fairly easy to detect, as the French expression "salle d'opérations" is like its Polish equivalent (sala operacyjna), while the equivalents of "easy", "facile" and "aisé", differ clearly in meaning ("easy to do" is "facile", while "aisé" means "relaxed, natural" or "well-off"). In fact, the expression "théâtre d'opérations" exists in French too, but it means "a theatre of war". Similarly, "aisé" as a synonym of "facile" theoretically exists, but it is an archaic, literary use and it was assumed that it could be treated, first, as unknown to the students at their proficiency level, and, second, as already a false friend, just as a test in contemporary English would not include, for example, the verb "to ejaculate" in its nineteenth-century sense, "to cry out". Like sentence 10, sentence 18 was also correct and was mostly recognised as such, but it also gave rise to considerable avoidance (22.22%) and students who rejected it insisted on changing "une centrale hydroeléctrique" (a hydroelectric power station) to "une station hydroeléctrique" (probably under the influence of English) or "un point hydroeléctrique".

By contrast, the biggest numbers of errors were observed in sentences 11 (85.19%), 20 (77.78%), 2 (70.37%) 1 and 5 (66.67% each). In 11 ("*Les gens reviennent des vacances et toutes les routes majeures sont bloquées par des embouteillages", – "People are returning from the holidays and all the major roads are blocked by traffic jams"), "les routes majeures" seemed semantically correct ; the difference lay

in the collocation, which, in French, is "les routes principales" ("the main roads"). Another difficult collocation occurred in sentence 20 ("*Les étudiants du lycée vont bient*ôt *passer leur bac*", target : "Les élèves du lycée/ Les lycéens vont bientôt passer leur bac" – "The secondary school students will soon take their A-level exams"). Here, the calque of the English expression 'secondary school students' seemed quite natural to the participants. By contrast, they often found erroneous the expression "passer leur bac" and changed it either to "prendre leur bac" (a literal translation of "take their A-level exams") or "réussir à leur bac" ("to pass their A-level exams"). Sentence 2 ("*Comme le montre un nombre d'études, le lexique mental est très complexe") was a literal translation of the English: "As a number of studies show, the mental lexicon is very complex", while in French the noun "nombre" (number) had to be modified by an adjective (un grand nombre/ un bon nombre) or replaced by the adjective "nombreux" (numerous): "Comme le montrent de nombreuses *études, le l*exique mental est très complexe". However, the students tended to regard the English-like structure as correct and to look for errors somewhere else, for example, in the expression "le lexique mental". These results indicate that detecting collocations as belonging to a non-target language may be more difficult than detecting false friends or literal translations of idioms. Still, false friends also pose considerable difficulty, as in sentences 1 ("*C'est un nouveau paragraphe, il faut donc le commencer par une indentation," target: "…par un alinéa" – "This is a new paragraph, so it has to be started with an indentation") and 5 ("*Saint François était ascète : il pratiquait le faste et il se déplaçait uniquement à pied", target : "… il pratiquait le jeûn/ il jeûnait et il se déplaçait uniquement à pied" – "Saint Francis was an ascetic: he practised fasting and travelled only on foot"). In fact, sentence 5 proved to be particularly difficult, as no correct response was supplied. Even though "le faste" formally resembles "fasting", it means the opposite (luxury, extravagance).

The numbers of correct, incorrect, partly correct and 'unsure' responses, as well as cases of avoidance for the four types of sentences (correct ones and those containing false friends and literal translations of English idioms and collocations) were then compared by means of a chi-square test to find out whether the correctness of the responses depended on the sentence type.

Table 4. The contingency table for the chi-square analysis of the correctness of responses according to sentence types

	Correct sentences	False friends	L2 collocations	L2 idioms	
Correct	59	38	25	4	126
Incorrect	52	124	67	36	279
Partly correct	6	26	6	20	58
Unsure	2	6	4	4	16
Avoidance	16	22	6	17	61
	135	216	108	81	540

df = 12, p < 0.001, χ^2_{obs} = 82.91809, χ^2_{crit} = 32.909 (Brown, 1988, p. 192), $\chi^2_{obs} > \chi^2_{crit}$

The difference is statistically significant at p<0.001, which proves that the correctness of the responses depended on the sentence type. As in the grammaticality judgement task, it was apparently easier to identify a correct than an incorrect sentence and, in the latter case, to correct the error.

Moreover, as in the grammaticality judgement task, L3 processing could not be separated from that of L1 and L2 and, moreover, L2 influence was more visible than L1 influence, probably due to the stimuli used. As in Blair and Harris's (1981) study, some literal translations of idioms were understood and accepted as correct. For example, seventeen subjects accepted the phrase "les cochons voleront" (target: "quand les poules auront des dents") as correct under the influence of the English idiom "pigs will fly", either marking the sentence as acceptable or changing another element, for example, from "si jamais tu arrives" to "si tu arrives jamais". Even their translations show that they regarded the idiom as possible in French, for example: "Prędzej świnie zaczną latać niż nauczysz się grać na pianinie" ("Sooner pigs will start to fly than you will learn to play the piano"), or: "Jeśli ty nauczysz się grać kiedykolwiek na pianinie, to kaktus mi na ręce wyrośnie" ("If you ever learn to play the piano, pigs will fly", literally: "a cactus will grow on my hand"). The translations indicate that the literal translation of the English idiom seemed quite natural to the students, that is why they either translated it by an equivalent Polish idiom ("kaktus mi na ręce wyrośnie") or even assumed that the same idiom, "świnie zaczną/ będą latać" existed in Polish and in English. The next idiom, "to keep the wolf from the door" (used in a literal translation, "pour tenir le loup loin de leur porte", while the French equivalent would have been "pour se mettre à l'abri du besoin"), was even more problematic. It gave rise to a lot of avoidance (44.44%) and to no correct response (though three students gave partly correct responses, as they at least spot-

ted the negative transfer from English), while nine subjects accepted the expression as possible in French, translating it, for example, as: "Żyją oszczędnie, aby związać jakoś koniec z końcem" ("They live economically in order to make ends meet somehow"), or: "Dużo oszczędzają, by bieda nie wkradała się do nich" ("They save a lot to prevent poverty from sneaking into their home"). However, literal translations (for example, "Oszczędzają wiele, żeby utrzymać wilka daleko od drzwi" – '"They save a lot to keep the wolf far away from the door") were also observed, which suggests that they students regarded this idiom as possible in Polish too.

Some interesting information is also provided by the subjects' corrections. As has been mentioned above, some participants tended to avoid L3 words which resembled their L2 equivalents. However, avoidance of interference sometimes led to even greater interference. For instance, two subjects changed the phrase "passer leur bac" ("take their A-level exam", without specifying whether they will pass it or not) to "prendre leur bac", which is a literal translation of the English expression "take their A-level exam" (see above). Similarly, in sentence 9 ("*Le pêcheur s'est assis sur la banque de la rivière", target: "Le pêcheur s'est assis au bord de la rivière" – "The fisherman sat down on the river bank"), two participants found the word "rivière" dubious or incorrect and suggested replacing it by "fleuve" (a large river which flows into the sea). Apparently, they focused on correcting what seemed "too English" to them, even though "river" and "rivière" are cognates, while they assumed that "bank" and "banque" were polysemous in the same way in English and French.

Furthermore, some of the subjects' interpretations were completely idiosyncratic, for example, in sentence 4, one participant changed "terminaisons" to "explications" and translated the sentence as: "To ćwiczenie jest bardzo trudne, dlatego powinno zawierać kilka wyjaśnień" (This exercise is very difficult, that is why it should contain a few explanations). It is quite puzzling why the students understood "easy" (despite the false friend, the context indicated this interpretation) as "difficult". It is possible that the spread of activation in the mental lexicon failed to activate the meaning of the target word (and its form, "facile"), but activated that of its antonym. Another interesting example is the translation of sentence 15 ("*À la réception, Sylvie a porté un tailleur vert foncé*" – "At the party/ reception, Sylvia wore a dark green suit") as: "Na weselu Sylvie miała *na sobie dopasowany zielony kostium*" (At the wedding, Sylvie wore a tight green suit). While "wedding" may have been activated by the context (a kind of party), instead of retrieving the meaning of "vert foncé" as "dark green", the student analysed "foncé" as the past participle of the verb "foncer" (to push, to charge at) and interpreted it as a tight suit into which Sylvie had "pushed" herself.

Finally, sentence 8 ("Cette librairie-papeterie se spécialise dans la vente de fournitures de bureau" – "This bookshop and stationer's shop specialises in the sale of office equipment/ supplies"), which was acceptable, was often rejected (it gave rise to seventeen erroneous responses, 62.96%) because of the activation of the English word "fur-

niture". Indeed, four students changed "fournitures" to "meubles" (furniture) and one crossed out the plural morpheme "s" in "fournitures" to make it singular, as in English. On the other hand, three subjects underlined "librairie-papeterie" as incorrect, and two of them remarked that it was strange because a bookshop did not sell furniture.

6. Conclusions

In general, the results of the study reflect the complexity of trilingual systems at the levels of both representation and processing. Despite focus on form, quite a lot of negative transfer and interference errors, especially from L2, were observed. It can thus be assumed that all three languages were coactivated and consulted by the subjects, which provides some evidence in favour of the dynamic character (Herdina & Jessner, 2002) of holistic multicompetence (Cook, 1992: 1996).

Indeed, overlooking negative transfer from English in the stimulus sentences (false friends and literal translations of idioms, collocations and grammatical structures) indicates that, as in Blair and Harris's (1981) study, both languages are activated (here, L2 and L3, rather than L1 and L2, though L1 also had to be activated to allow L1-L3 translation) and, if the underlying meaning of a word or an idiom in the non-target language reaches a sufficient activation level, it can seem acceptable to the multilingual learner in the context available to him or her. Still, as in the case of "synforms" (Laufer, 1997), even though the participants integrated such interpretations into the contexts formed in their minds, the errors distorted the context and puzzled them, as in the example of the office supplies taken to be furniture. Therefore, the results of cross-linguistic interaction were negative rather than positive, but this may also be due to the study design, which deliberately included false friends and structures different in English and French.

Secondly, as the chi-square tests have shown, the correctness of the responses depended on the stimulus sentences, and accepting well-formed sentences as correct was easier than finding the errors in ill-formed sentences and correcting them. This applied to both grammatical and lexical errors. It can thus be supposed that, while in the case of correct structures and expressions it was easier to retrieve the rule or the lexical entry and also identify it in the stimulus sentence (although errors involving the rejection of correct sentences occurred too), encountering a sentence that seemed intuitively anomalous triggered a search for the error, which involved the more or less conscious use of strategies, such as the rejection of English-like elements, even though the result was not necessarily the target response.

Indeed, on the basis of the participants' performance, it can be assumed that at least some of them used strategies actively in order to understand the sentences (also by deducing the meanings of unknown words from context) and to evaluate their correctness. The study thus reveals not only linguistic but also strategic

competence. In fact, transfer was not the only strategy and, in some cases, the participants' strategies focused on avoiding transfer and/or interference, which could lead to the rejection of correct words or structures if they seemed "too English". Moreover, as in the example of "vert foncé", they used comprehension strategies, such as morphological analysis. This sum of different competencies can be regarded as what Tarone (1983) describes as capability underlying language behaviour and what Herdina and Jessner (2002) define as multilingual proficiency.

Moreover, as the subjects were still learning their L2 and L3, the competence revealed by such studies as the present one must be regarded as variable, constantly changing under the influence of new input, processing constraints or even task demands (Tarone, 1979). Thus, in order to get better insight into multilingual proficiency, more research is needed, including longitudinal studies analysing the linguistic development of multilingual subjects, reflected to their linguistic and strategic behaviour in various contexts.

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Appendix 1: Sentences used in the grammaticality judgement study
1. Je me suis rappelé à poster la lettre.
2. Charlotte pense de voyager en Espagne.
3. Est-ce que ça te dérange si j'ouvre la fenêtre ?
4. Elle a fait ses élèves écrire un conte de fées.
5. Je n'ai rien contre laver la vaisselle.
6. Pierre rêve de partir enfin en vacances.
7. Fumer est interdit ici.
8. Je ne me souviens pas d'aller chercher ta tante à l'aéroport l'année dernière à Noël.
9. Je voudrais vous remercier pour traduire ce document.
10. En faisant beaucoup d'exercices, on peut très bien apprendre la grammaire.
11. Je ne m'attendais pas à lui de refuser mon invitation.
12. Catherine est très déçue d'avoir perdu la compétition.
13. Jeanne est responsable pour réaliser ce projet.
14. Henri préfère skier plutôt que de patiner.
15. La prof a dit à Agnès à corriger sa rédaction.

Appendix 2: Sentences used in the lexical correctness judgement test
1. C'est un nouveau paragraphe, il faut donc le commencer par une indentation.
2. Comme le montre un nombre d'études, le lexique mental est très complexe.
3. L'apprentissage d'une langue étrangère requiert beaucoup d'effort.
4. Cet exercice est très aisé : il faut juste rajouter quelques terminaisons.
5. Saint François était ascète : il pratiquait le faste et il se déplaçait uniquement à pied.
6. La prof est très contente des achèvements de ses élèves.
7. La grand-mère regardait ses petits-enfants avec un sourire bénévole.
8. Cette librairie-papeterie se spécialise dans la vente de fournitures de bureau.
9. Le pêcheur s'est assis sur la banque de la rivière.
10. Madame Labonne est très cultivée. Elle lit beaucoup et participe à de nombreuses manifestations culturelles.
11. Les gens reviennent des vacances et toutes les routes majeures sont bloquées par des embouteillages.
12. Si jamais tu arrives à apprendre à jouer du piano, les cochons voleront.
13. Ils économisent beaucoup pour tenir le loup loin de leur porte.
14. Actuellement, Anton n'est pas Allemand, mais Autrichien.
15. *À la réception, Sylvie a porté un tailleur vert foncé.*
16. Le patient est déjà au théâtre d'opérations.
17. Arrête de me tirer par la jambe ! Je sais que tu n'as jamais été en Australie !
18. Une nouvelle centrale hydroélectrique a été construite sur cette rivière.
19. Cette pipe transporte l'eau de la conduite à notre cuisine.
20. Les étudiants du lycée vont bientôt passer leur bac.