

Prior language knowledge and intercomprehension at the first encounter of Italian as an additional language: A translation task

LINDA SMIDFELT & JOOST VAN DE WEIJER
University of Lund

Abstract

The aim of the present study is to examine and describe Swedish upper secondary students' use of their background languages while translating a text from Italian, a language unknown to them, into either their L2 English or their L3 French or Spanish. The assumption here is that searching for similarities between these languages is a natural feature of language learning and that intercomprehension can lead to at least limited understanding of an unknown language. The written translations were analysed quantitatively by calculating translation accuracy in the different languages and qualitatively by means of a retrospective questionnaire on the translation process. A psychotypology questionnaire was also included to examine the participants' perceptions of the similarities between the languages involved. The majority of the participants stated that they perceived Spanish to be more similar to Italian than any of the other languages involved in the study. Moreover, the results show that the students in the group that translated into Spanish translated the text more accurately than those who translated into French and English. The comments in the retrospective questionnaire show that the students reflected on similarities between the languages on a lexical level, but also on structural and phonological similarities. Contextual cues were also important for the participants' inferences and translations.

Key words: intercomprehension, Italian, third language, translation, psychotypology

1 Introduction

The acknowledgement of bi- and multilingualism as a very common phenomena among the world's population has contributed to an increased interest in multilingualism (Hammarberg 2016, Cenoz 2013). Furthermore, the interest in how multilingual speakers deal with the comprehension of unknown foreign languages has recently increased, and the concept of how speakers with different first languages (L1s) are able to comprehend each other by using their respective L1s and/or a *bridge language*, is referred to as intercomprehension or receptive multilingualism (Van Bezooijen & Gooskens 2007, Möller & Zeevaert 2015). Receptive competence in a third or additional language (L3 or L_n) is considered to be the most direct way into multilingualism (Peyer, Kaiser & Berthele 2010) and the search for similarities between the languages that a learner has knowledge of is a natural feature of language learning (Jessner 1999, Ringbom 1987). The extent to which a learner may understand another language depends on several factors, including differences or similarities in orthography, syntax, the number of cognates that the languages have in common, how many languages the learner knows and metalinguistic awareness (Heeringa et al. 2013). Additionally, studies on word recognition have shown that a multilingual speaker's lexicons are connected to each other and can be activated in parallel (Dijkstra 2003, Lemhöfer, Dijkstra & Michel

2004, De Bot 2004, Szubko-Sitarek, 2011). However, there is evidence that the languages of a multilingual person might not be activated to the same extent in production and reception, and that the level of activation of the background languages may be task specific (cf. Tytus, 2018).

Against this backdrop, the aim of the present study is to examine and describe how multilingual upper secondary students with Swedish as L1 use their knowledge of foreign languages while translating a text from Italian, an unknown language, into either their L2 (English) or their L3 (Spanish or French). We refer to multilingualism here as knowledge and use of three or more languages at an individual level (e.g. McArthur, 1992, Kemp, 2009). The term L2 is used for English, as this is the first foreign language that the students learned (Hammarberg 2001, 2016). The term L3 is used in the sense that French and Spanish are foreign languages that the students are currently acquiring after English, therefore it is not necessarily the third language in chronological order (nevertheless, for most students in the present study it is). We analysed the translations qualitatively, by means of a retrospective questionnaire, and quantitatively by calculating translation accuracy in the different languages (following Gibson & Hufeisen, 2003). A psychotypology questionnaire was also included to examine the students' perception of the similarities between the languages involved in the study.

In section 2, a review of the literature on intercomprehension, the role of psychotypology, and a few relevant previous translation studies are summarized. In section 3, the present study is described and in section 4 the analysis and results of the tasks are presented, both quantitatively and qualitatively. The findings are discussed in section 5.

2 Literature review

Several recent studies have investigated intercomprehension in unknown but related languages. Swarte, Schüppert & Gooskens (2015) asked Dutch L1 participants, who did not know Danish and had different levels of German proficiency, to translate Danish words into Dutch. The stimulus words in the experiments had either only cognates in German or in Dutch. The results showed that participants with a high proficiency level of German decoded more Danish stimulus words correctly than those with a low proficiency level of German. Möller & Zeevaert (2015) investigated factors that influence the recognition of cognate words among German L1 speakers reading in unknown Germanic languages, and found that phonetic similarities between different segments in isolated cognate words proved to be the most important clue. For words presented in context, however, semantic probability overrides intuitions about phonetic similarity. Furthermore, there are a few recent intercomprehension studies with multilingual speakers with varying language combinations. In a study by Mieszkowska & Otwinowska-Kasztelanica (2015), Polish L1 speakers with an advanced level of English as an L2 and different constellations of L3-L_n (Germanic, Romance and mixed) decoded a text in Danish, an unknown language, and the results showed that the main source language at the lexical level was English, the participants' L2. Polish, the participants' L1, a Slavic

language, was not activated at all, probably due to the typological distance between Danish and Polish. Likewise, Smidfelt (2018) investigated three Swedish L1 university students' (with English as L2 and French, German and Spanish respectively as L3) intercomprehension strategies while reading and decoding text in Italian, a language unknown to them. The participant who had never studied a Romance language was equally successful regarding the number of correctly inferred words, mainly with the aid of his knowledge of English. This result could indicate that knowledge of English is as helpful as knowledge of a Romance language for understanding written Italian since as much as 50 % of the English vocabulary has a Romance origin (Singleton, 1987, Schepens et al., 2013). In contrast, Marx (2011) examined to what extent German L1 speakers with varying background languages were able to understand several different unknown Germanic languages (Dutch, Swedish, Danish, Icelandic or Norwegian). Inferencing success was highest for Dutch, as was expected, since Dutch is the typologically closest language to both English and German. The results also show that there was no correlation between the number of foreign languages known by the participants and success in the intercomprehension task.

According to Ringbom & Jarvis (2009) 'learners are constantly trying to establish links between the target language and whatever prior linguistic knowledge they have' (p. 106), i.e. learners make use of cross-linguistic similarities that may facilitate the learning task. In comprehension, the perceived similarities between a target language and the language(s) the learner knows usually concern similarities in spelling, morphology and pronunciation. Moreover, Ringbom & Jarvis argue that the perceived similarities (psychotypology) between the languages a learner knows are not necessarily the same as the actual similarities (typology). The concept of psychotypology refers to similarities and differences between languages, as perceived by the learner (Kellerman, 1983, 1995). The notion of typology relates to actual similarities between languages regarding, for instance, linguistic structures. Bardel & Lindqvist (2007) examined the interplay of psychotypology and proficiency in the oral production of a multilingual Swedish learner of L3 Italian. Their results suggested that the typological closeness between Spanish and Italian played an important role in their study, mainly at the phonological level, as Spanish words were inserted in the production more naturally, or even unconsciously. Lindqvist (2015) investigated if Swedish learners of L3 French transfer more from the language they perceive to be most closely related to French. Her results show that the participants seem to transfer more from English, the language that they in general perceived to be closer to French than Swedish.

With regard to translation studies, in which the participants translate from their L1 into a foreign language, Sercu (2007) for instance, examined how multilingual learners in Dutch-speaking schools in Brussels used the languages they knew when performing a translation task. The 55 participants were mainly native speakers of French or Dutch. They were first asked to write a story based on a cartoon, in the language they considered their L1, and then to translate this story into their different foreign languages. The purpose was to find out whether the translations would

reflect a bilingual or a multilingual mode of language production and processing. The results show that the learners mainly activated the appropriate target language in the translations, since there were not many instances of cross-linguistic transfer. However, 54 % of the cases that showed evidence of cross-linguistic influence were based on the learners' L1 while 46 % indicated activation of three languages simultaneously.

Herwig (2001) conducted a similar translation study involving Norwegian, German, Dutch and Swedish. The participants were asked to compose a story on the basis of a series of pictures in their L1 and then to translate this story into their respective L2s. Concurrent think-aloud protocols were used in order to examine lexical processing while performing the task. The results suggest that lexical selection involves both deliberate and automatic consultation of several languages and that cross-linguistic influence from languages perceived as typologically close plays an important role. Furthermore, processing mechanisms indicate that lexical items are linked in a complex way at different linguistic levels.

In contrast, Gibson & Hufeisen (2003) examined the role of foreign language knowledge when translating from an unknown language into a known foreign language, as in our study. The assumption was that multilingual language learners browse through the lexicons of the different languages they know when, in this case, they read a text in a foreign language. There was one group of 10 learners of English as a foreign language and a second group of 26 learners of German as a foreign language. The learners had all acquired more than one foreign language and they had different L1s. The first part of the task was to translate a short text from Swedish, an unknown language for the participants, into either German or English, the foreign languages they were studying at the time of the study. The text also included an illustration showing three children, a dog, a book and a bicycle. The second part of the task was a retrospective questionnaire in which the participants answered questions on the process of translating the text. The translation accuracy in the group studying English was 82 %, while that in the group studying German was 72 %. Additionally, the number of foreign languages the participants knew correlated with the accuracy of the translations. In the questionnaire the participants mainly focused on lexicon and listed cognate words in the different languages. However, participants who also mentioned metalinguistic and/or world knowledge strategies tended to do better on the task.

In summary, the results of previous research presented in this section indicate that both perceived and actual similarities between the languages play a role for the activation and use of the background languages in production as well as comprehension. Moreover, there is evidence that a multilingual learner activates several languages when performing a translation task. However, research on the role of the background languages when translating from an unknown language into a foreign language is less extensive, compared to translating from an L1 into a foreign language. With this in mind, the present study was guided by the following research questions:

1. When translating a text from Italian (an unknown language) into L2 English or L3 French or Spanish, which background language seems to be the most helpful, i.e. leads to the highest task accuracy?
2. What can the comments written in a retrospective questionnaire tell us about the process of translating from an unknown language into an L2 or an L3?
3. Which words or phrases are the most difficult for the three groups to translate? Are there differences between the groups in this regard?
4. How do the participants perceive the similarities (psychotypology) between the languages in question?

3 The study

3.1 Materials

Three instruments were devised for this study: one translation task and two questionnaires. The material used for the translation task was a text in Italian consisting of 14 sentences (66 word tokens, 51 types). Two or more occurrences of the same word in the text were considered as different types if they had different possible translations, cf. *mi* in (1) and *mi* in (12) and (13) and were therefore counted separately in the analysis. The text was created by the researcher based on typical short presentation texts in Italian beginner's textbooks and on the text used in Gibson & Hufeisen (2003). It contained verbs, nouns, adjectives, adverbs and highly frequent function words such as *e* ('and'), *in* ('in'), *che* ('who'/'that'). A title or any extra-linguistic information, such as pictures or illustrations, was not included. The text is provided below with the verbatim English translations directly underneath and a following correct English translation. Since the use of the subject pronoun is not compulsory in Italian, the English subject pronoun is presented within parenthesis in the verbatim translations (see Appendix for translations of the Italian text into Swedish, French and Spanish).

- (1) Mi chiamo Enrico Vicenti.
myself call(I p. s.) Enrico Vincenti
'My name is Enrico Vicenti.'
- (2) Ho trentadue anni.
have(I p.s.) thirty-two years
'I am thirty-two years old.'
- (3) Sono di Roma ma abito a Milano.
be(I p. s.) from Rome but live(I p. s.) in Milan
'I am from Rome but I live in Milan.'
- (4) Lavoro in un ospedale a Milano.
work (I p. s.) in a hospital in Milan
'I work in a hospital in Milan.'

- (5) Ho una sorella che si chiama Alessandra.
have(I p. s.) a sister who herself call(3 p. s.) Alessandra
'I have a sister who is called Alessandra.'
- (6) Ha ventinove anni.
has(3 p. s.) twenty-nine years
'She is twenty-nine years old.'
- (7) Mio padre è medico.
my father is doctor
'My father is a doctor.'
- (8) Mia madre fa la dentista.
my mother does the dentist
'My mother is a dentist.'
- (9) Ho un cane che si chiama Bruno.
have(I p. s.) a dog who himself call(3 p. s.) Bruno
'I have a dog Bruno.'
- (10) È grande e nero.
is(3 p. s.) big and black
'It is big and black.'
- (11) Ho molti amici.
have(1 p. s.) many friends
'I have many friends.'
- (12) Mi piace andare in bicicletta.
Me pleases go in bicycle
'I like riding the bicycle.'
- (13) Mi piace anche andare al cinema.
Me pleases also go to the cinema
'I also like going to the cinema.'
- (14) Leggo molto.
read(1 p. s.) much
'I read a lot.'

The retrospective questionnaire was based on the one used in Gibson & Hufeisen (2003), with the following questions:

- Did Swedish help you translate the text?
- Did English help you translate the text?
- Did French/Spanish (or another language you know) help you translate the text?
- Was the task easy or difficult? What was easy or difficult? Were you helped by something else when you translated, as for instance the context? Give examples! Were you able to translate a word with help of another word? What language(s) helped you the most do you think? Other thoughts or opinions?

For each question the students were asked to write examples of the words they were able to translate and how they were able to translate them. They also completed a psychotypology questionnaire immediately after the retrospective questionnaire. This questionnaire was based on similar ones used by Lindqvist (2015), Hall et al. (2009) and Schweers (1993) and consisted of five questions (see section 4.3) regarding the participants' perception of the similarities among the languages involved in the study, concerning for instance grammar and vocabulary.

3.2 Participants

The data were collected in 2018 at an upper secondary school in Sweden. A total of 60 students (38 female and 22 male) aged 16 or 17 participated. They were all in their first year, all of them were L1 speakers of Swedish, but a few stated an additional L1. If this additional L1 was one of the languages involved in the study (i.e., Spanish, French and English), they were excluded from the analysis. However, students with an additional L1 that was not regarded to interfere with the results (e.g., Bosnian, German and Russian) were included. They were all studying English and at least one more foreign language (mainly French, Spanish, German) at the time of data collection (see table 1 for the number of years they had studied these languages). The students who were studying Italian were excluded from the analysis. The students assessed their own proficiency in each of these languages on an ordinal scale from 1 (very low proficiency) to 5 (very high proficiency). The 60 participants were divided as follows: 21 students translated into English (English group), 16 translated into French (French group) and 23 into Spanish (Spanish group).

Table 1 provides an overview of the participants' linguistic background. All students in all groups had studied English on average between seven and eight years. Additionally, 51 of the students had also studied French, German or Spanish, and nine of them had studied a combination of two of these languages. Two of these nine students were in the English group, three in the French group and four in the Spanish group. Spanish was the most frequently chosen of the three additional languages (40 students), followed by French (17 students) and German (10 students). In this sample, the students had been studying French or Spanish for an average of approximately four years, and German for an average of approximately three years. They assessed their English proficiency higher than 4 on the scale on

average, and their proficiency in the other three languages between 2 and 3, but within these three languages Spanish was rated higher on average than French or German. The correlation (Spearman rank order correlation coefficient) between the self-assessed ratings and the number of years of instruction were high for Spanish ($r = 0.44$), French ($r = 0.52$) and German ($r = 0.48$) but low for English ($r = 0.09$). The cause of the low correlation between years of instruction and proficiency for English is without doubt the low variability in either variable in the sample; all the students had studied English for approximately the same number of years, and all rated their proficiency of English high.

The answers to the question of how often they used or came in contact with English outside of the school context made it clear that most students used English every day. Some of the examples they wrote were YouTube, Internet in general, social media, television, books, music, gaming etc. The same question was asked concerning their L3. Most of them answered 1-3 times a month and some of the examples they wrote were travelling, social media, watching films or listening to music. This means that in terms of exposure to the foreign languages they knew, English was clearly the language they encountered the most.

None of the participating students in the sample had studied Italian, but a few claimed to have picked up a few words during holidays in Italy, such as *grazie* ('thank you'), *gelato* ('ice cream') and *buongiorno* ('good morning').

Table 1. *Participants' linguistic background*

		English group	French group	Spanish group
N		21	16	23
L1		Swedish	Swedish	Swedish
age (years)		16-17	16-17	16-17
English (L2)	n	21	16	23
	years	7;8 (6;6-9;6)*	7;10 (6;6-9;6)	7;8 (5;6-9;6)
	proficiency	4.10 (3-5)**	4.62 (4-5)	4.45 (3-5)
Spanish (L3)	n	14	3	23
	years	4;1 (1;0-7;6)	2;0 (2;0-2;0)	4;4 (3;6-5;6)
	proficiency	2.17 (1-4)	1.00 (1-1)	3.45 (3-5)
French (L3)	n	3	16	
	years	3;4 (2;0-4;6)	4;2 (3;6-4;6)	
	proficiency	1.75 (1-3)	2.44 (1-3)	
German (L3)	n	6		4
	years	4;2 (3;6-4;6)		1;3 (0;1-2;0)
	proficiency	2.67 (1-4)		1.67 (1-2)

* Average (given in years and months) and the range within parentheses. ** Average and range within parentheses.

3.3 Data collection

The data collection took place during a class in the respective languages in the presence of the students' teacher and one of the researchers. The first part of the data collection was a background questionnaire. The students were asked to provide their age and gender as well as information on their linguistic background, i.e. their native language, what languages they had studied and for how long, the frequency and the contexts in which they used these languages, and their self-assessed proficiency level of each language rated on an ordinal scale from 1 to 5 (1 very low proficiency and 5 very high proficiency). The second part was the translation task. They were asked to translate a short text in Italian, for them an unknown language, into Spanish, French or English. They were instructed to translate as many words as possible and if they were not sure what a word meant, to guess its meaning. They were not allowed to ask each other, their teacher or the researcher, questions about the translations, nor were they allowed to look up any words in a dictionary or on the Internet. After completing the translation task the students were asked to compile the retrospective questionnaire consisting of questions on how they performed the task, i.e. which language(s) helped them translate the task, which words for which language and in what way they were helped by their background languages. The final part of the questionnaire was a more general reflection on the task, if it was easy or difficult, what was easy or difficult, if they were aided by the context while translating and other general comments on the task. They were also asked to complete the psychotypology questionnaire immediately after the retrospective questionnaire. The students all signed a consent form where they were informed that all the data would be treated anonymously, that their teacher would not be able to look at their texts and use them for assessment, and that the texts would only be used for research purposes. They were also informed that they could interrupt their participation at any point. The whole procedure lasted for approximately 50 minutes and the tasks were performed with pen and paper.

4 Analysis and results

4.1 Results overall task accuracy

Figure 1. Translation accuracy by group

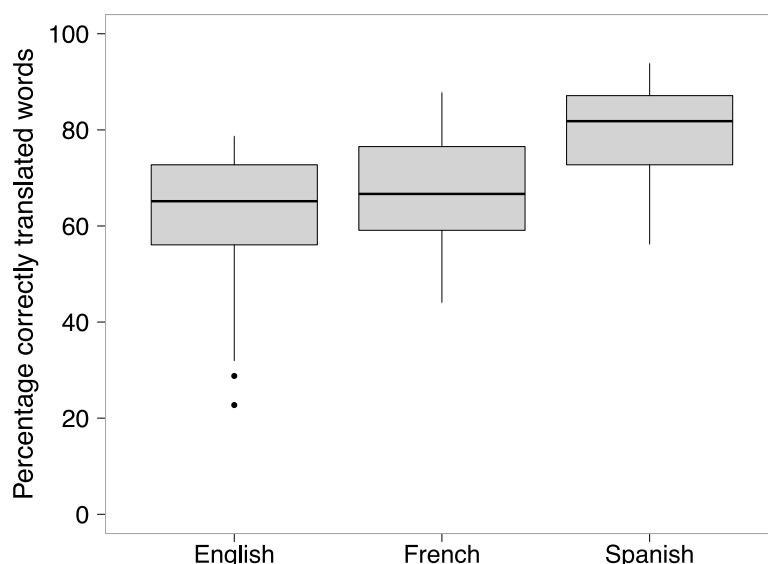


Figure 1 shows that there was considerable variation between the students' translation accuracy. The percentage of correctly translated words ranged from only 23 % by one of the students in the English group to 94 % by two in the Spanish group. The overall percentage correctly translated words is displayed in Table 2, confirming that translation accuracy was highest in the Spanish group and lowest in the English group. The translation accuracy was analysed as a mixed-effects logistic regression analysis with group as a fixed effect and students and words as random effects. The pairwise comparisons between the groups were tested as a general linear hypothesis. The results showed that the translation accuracy in the Spanish group was significantly higher than that in the English group (EST = -1.630, SE = 0.317, $z = -5.166$, $p = 0.000$) and that in the French group (EST = -1.100, SE = 0.341, $z = -3.228$, $p = 0.004$). The difference between the French and the English group, on the other hand, was not significant (EST = -0.536, SE = 0.343, $z = -1.563$, $p = 0.262$).

The most plausible cause for the relatively high translation accuracy in the Spanish group is that all the students in this group had studied Spanish whereas only subsets of the other two groups had done so. To explore this cause, we additionally compared the translation accuracy of the 14 students in the English group who had studied Spanish with those in the Spanish groups. The idea behind this comparison is that the students in these two groups had approximately equal knowledge in Spanish and English, and only differed in the target language that they translated the text into. The translation accuracy of the 14 students in the English group was

65 %, which was significantly lower than the 80 % correct in the Spanish group (EST = 1.385, SE = 0.347, $z = 3.991$, $p = .000$). This suggests, as will be discussed in section 5, that the students did not fully exploit their knowledge of Spanish when they translated the text into English.

Incorrectly translated words were classified as words that were given an erroneous translation or words that were omitted altogether in the translation. The percentages in Table 2 show that the distributions of these two error types were not the same across the three groups. Proportionally, omissions were most frequent in the English group and least frequent in the Spanish group.

Table 2. Accuracy results per group

	English group	French group	Spanish group
correct	61 %	68 %	80 %
incorrect	20 %	21 %	14 %
omitted	19 %	12 %	5 %
words most often omitted or incorrectly translated	<i>leggo</i> (10, 10)* <i>molto</i> (10, 10) <i>lavoro</i> (9, 11) <i>ospedale</i> (10, 10) <i>molto</i> (12, 8) <i>amici</i> (12, 8) <i>anche</i> (13, 4)	<i>leggo</i> (4, 12) <i>molto</i> (4, 12) <i>anche</i> (12, 3) <i>di</i> (4, 8) <i>in.2</i> (2, 10) <i>lavoro</i> (4, 8) <i>mi.3</i> (5, 7)	<i>leggo</i> (6, 17) <i>amici</i> (10, 11) <i>molto</i> (5, 15) <i>anche</i> (12, 3) <i>sorella</i> (0, 15) <i>ospedale</i> (3, 11) <i>lavoro</i> (2, 11)

Table 2 also shows a list of the seven words that were translated incorrectly or omitted most often within each group. Obviously, the text's final phrase *leggo molto* ('I read a lot/much') was confusing. Only one of the participants managed to translate this phrase correctly. Unfortunately he/she did not explain in the retrospective questionnaire how he/she was able to infer the meaning of this phrase. A majority of the participants clearly interpreted this phrase as a closing statement, most likely because they thought the text was a letter (as some of the comments in the retrospective questionnaire showed) and because it was the last phrase. It is also evident that the most omitted word is *anche* ('also'), which appears in the phrase *Mi piace anche andare al cinema* ('I also like going to the cinema'). There were very few incorrect translations of this word, meaning if it was not omitted, it was correctly translated. Interestingly, the word *lavoro* ('I work') in the phrase *Lavoro in un ospedale a Milano* ('I work in a hospital in Milan') was interpreted by many participants 'I live', and consequently they most often translated *un ospedale* as 'an apartment'. The Italian word *ospedale* has cognates in English ('hospital'), French ('hôpital') and Spanish ('hospital'). It seems however that in this case the immediate context and the inference of the word *lavoro* as 'I live' overrides the similarities between the cognates for *ospedale*, since it does not make sense to live in a hospital. In general it seems that the three groups had difficulties with most but not all lexical items. In the Spanish group for instance, the incorrect translations for *sorella* ('sister') reached 65 % (with no omissions) and this item was mainly

translated into the Spanish word 'novia' ('girlfriend'). When compared to the French and English groups, this item was incorrectly translated only in a few cases. In the retrospective questionnaires, the participants in the French group often mentioned the similarities between *sorella* and the French word for sister, 'sœur'. However, in the retrospective questionnaires in the English group, even though the majority of the participants translated the word correctly, none of the participants mentioned *sorella* or 'sister'. One explanation could be that it was mainly the context that helped them infer this item. Regarding the French group there were also a few differences compared to the other two groups in that *in* ('in'), *mi* ('I' or 'my', depending on the context in this text) and *di* ('from') were among the most incorrectly translated or omitted words.

The function words in the text, for instance *e* ('and'), *che* ('who', 'that'), and *a* ('in'), were mainly correctly translated. In the Spanish and French translations it was very common with the addition of indefinite articles in the phrases 'My father is a doctor' and 'My mother is a dentist' (Spanish 83 %, French 75 %). In Spanish and French (and also in Swedish) the indefinite article is normally omitted (e.g. 'Min pappa är läkare', 'My father is (a) doctor'). It is not unlikely that the use of the indefinite article is an example of the influence of English, the only language involved in the study in which the indefinite article in this particular context is used.

4.2 Results from the retrospective questionnaire

The analysis of the retrospective questionnaire showed that 17 % of the participants claimed to be helped by their L1 Swedish and 83 % by the L2 English. All the students who had studied French and Spanish claimed to be helped by these languages. The students in the English group who had studied German stated that they were not helped at all by their knowledge of this language. Examples of the comments written by the participants regarding all the questions in the questionnaire are presented below (see also section 3.1 for the questions included in the questionnaire). The original comments in Swedish are written in italics with the verbatim translations into English in parenthesis. The Italian target words are presented within quotation marks. In the examples, the participants are identified by the letter combinations PS, PF or PE, indicating that they were in the Spanish, French or English group respectively.

Did Swedish help you translate the text?

- (15) PS11 "*Mi*" låter som min.
(“Mi” sounds like mine.)
- (16) PS23 "*Medico*" – väldigt likt svenskans medicin.
(“Medico” – very similar to Swedish medicin.)
- (17) PF52 "*Molti*" liknar svenskans multi, alltså flera.
(“Molti” resembles multi in Swedish, that is, many.)

- (18) PE25 *Jag översatte till spanska sen till svenska sen till engelska.*
(I translated into Spanish then into Swedish then into English.)

In example (18), PE25 commented more generally on the whole translation process and not only on individual words. First the participant translated into L3 Spanish, then into L1 Swedish and finally into L2 English, which was the target language for this particular participant.

Did English help you translate the text?

- (19) PS14 *"in un" = in a, "medico": tänkte jag var medicin på engelska och det kan betyda läkare eftersom pappan var något, jo han var läkare, "la dentista": tänkte jag var dentist på engelska.*
(*"in un" = in a, "medico": I thought it was medicine in English and it can mean doctor since the father was something, yes he was a doctor, "la dentista": I thought it was dentist in English.*)

In example (19) the participant states to be mainly aided by individual words, but also by the context. Since he/she writes that *medico* resembles 'medicine' and that he/she understood that it had to do with the father's profession and hence it could mean doctor.

- (20) PS22 *"cane" = canine = perro, canine hund på engelska, ex. canine unit är polishundar, en hundpatrull, "cinema" – cine, cinema engelska för bio.*
(*"cane" = canine = perro, canine dog in English, for example canine unit is police dogs, a dog patrol, "cinema" – cine, cinema English for cinema.*)
- (21) PS3 *"ospedale", "dentista", "molti", "cinema", orden påminner om de engelska orden och man ser likheter i språken.*
(*"ospedale", "dentista", "molti", "cinema", the words remind me of the English words and you can see the similarities of the language.*)
- (22) PS21 *Jag känner igen ord som "cinema" och "dentist" från engelskan men även från spanskan. Jag anser att engelskan hjälpte mig något men inte mycket.*
(*I recognize words like "cinema" and "dentist" from English but also from Spanish. I think that English helped me somewhat but not a lot.*)

- (23) PF60 *Endast delvis, dvs bara med de ord som var lika franskans och i sin tur även italienska ("cinema"). Eventuellt också meningsbyggnaden i viss mån.*
(Only partly, that is only with the words that were similar to French and in that case also Italian ("cinema"). Perhaps also sentence structures to a certain extent.)

In examples (20)-(23), and in the majority of the comments not presented here, the participants mainly list individual words in English. In example (22) and (23) the participants also reflect on the fact that it is not only English that helps them, but also the similarities between French, Spanish and Italian, indicating that all the foreign languages they know are activated.

Did Spanish help you translate the text?

All the students who had studied Spanish, both in the Spanish group and those who had studied Spanish in the English group, answered yes to this question. Most of them listed the words that they were able to figure out with the aid of Spanish: 'my name is' - *mi chiamo* (It.) *me llamo* (Sp.); 'big' - *grande* (It.) *grande* (Sp.); 'black' - *nero* (It.) *negro* (Sp.); 'hospital' - *ospedale* (It.) *hospital* (Sp.). Some of them also commented on the syntactical similarities between the languages, as presented in examples (24) and (25):

- (24) PS19 *"Ho trentadue anni" – likt spanskans tengo x anos som är uppbyggd på samma sätt. "andare" – andar betyder att gå till fots på spanska som är ganska likt betydelsen av verbet ir. Meningsuppbyggnaden av frasen där "andare" används liknar de sammanhang där ir används.*
(“Ho trentadue anni” – similar to Spanish tengo x anos which is structured the same way. “andare” – andar means to go by foot in Spanish which is quite similar to the meaning of the verb ir. The structure of the phrase where “andare” is used is similar to the contexts where ir are used.)
- (25) PS4 *När man väl har ett ord i en mening eller sats så kan man lista ut genom att titta på meningsuppbyggnaden och antal ord vad de andra orden ska betyda och vad då hela meningen betyder.*
(When you have a word (that you have understood) in a sentence or a phrase then you can figure out by looking at the sentence structure and the number of words what the other words should mean and then what the whole sentence means.)

Some students also commented on the similarities of the pronunciation in the two languages as is evidenced in examples (26) and (27):

- (26) PS18 *Spanskan hjälpte mig att översätta allt för om jag tänkte mig hur det uttalades så var det väldigt likt spanskan som tex "mi chiamo" låter extremt mycket som me llamo. Sedan var det bara att passa ihop bitarna som fattades.*
(Spanish helped me to translate everything because if I imagined how it was pronounced it was very similar to Spanish as for example "mi chiamo" sound very much like me llamo. Then it was only a matter of putting together the pieces that were missing.)
- (27) PS16 *Om man läser upp texten så hör man väldigt många ord. Ex "mi chiamo" = me llamo.*
(If you read the text aloud you can hear very many words, for instance "mi chiamo" = me llamo.)

However, the students performed the task in silence, they did not read the text or their translations aloud, so this indicates some kind of subvocalization.

Did French help you translate the text?

All the participants, both in the French group and those who had studied French in the English group, answered yes to this question. They mainly listed the words that were similar in French and Italian, for instance: 'thirty-two' - *trentadue* (It.) *trente-deux* (Fr.); 'sister' - *sorella* (It.) *sœur* (Fr.); 'twenty-nine' - *ventinove* (It.) *vingt-neuf* (Fr.); 'black' - *nero* (It.) *noir* (Fr.); 'friends' - *amici* (It.) *amis* (Fr.); 'I live' - *abito* (It.) *j'habite* (Fr.); and 'years' - *anni* (It.) *ans* (Fr.). Some of them also reflected more generally on the similarities between the languages as is shown in examples (28) and (29):

- (28) PF48 *Italienska och franska är relativt lika språk. Många ord påminde om franskan. Ex. "trentadue", "anni", "abito", "ventinove", "medico", "dentista", "cane", "grande", "nero", "cinema". Vissa (om man läser dem högt) påminner om franska uttal vilket också hjälpte. Ex. "abito", "trentadue". Viss meningsuppbyggnad påminde om franskan, ex. mening 1.*
(Italian and French are relatively similar languages. Many words were similar to French. For example "trentadue", "anni", "abito", "ventinove", "medico", "dentista", "cane", "grande", "nero", "cinema". Some (if you read them aloud) are similar to French pronunciation, which also helped. For example "abito", "trentadue". Some sentence structures were similar to French, for example sentence 1.)
- (29) PF51 *Det mesta påminde om franskan, både uppbyggnaden och orden i sig, som talen, adjektiven och familjeorden.*
(Most of it reminded me of French, both the structure and the words, such as the numbers, the adjectives and the family words.)

The last part of the questionnaire concerned a more general opinion on the task, for instance if they found it easy or difficult, if they were helped by other strategies such as the use of the context, which language they found most helpful, etc. In general, the students wrote that the context helped them to a great extent in that if they could understand one or a few words they could guess the meaning of a whole phrase. Some of them wrote that they enjoyed the task. It was different from other tasks they had previously done in school, and they liked the fact that they could use their background languages to understand a text in an unknown language. Moreover, some wrote that the task was easier than they had thought to begin with. Those who were studying a Romance language generally thought the task was quite easy, as examples (30) and (31) give evidence of:

- (30) PE44 *Den var både svår och lätt. Vissa saker var lättare att översätta än andra. Vissa saker förstod man i sammanhanget som att "Roma" och "Milano" hade något att göra med var han bor. Samma sak med föräldrarnas yrken eller att när det är namn på personer, så som "Alessandra" och "Bruno", har han någon relation till dem. När man förstår sammanhanget kan man gissa vad vissa ord betyder och ord som upprepas mycket, t.ex. "ho", kan man lista ut vad de betyder genom att testa om det funkar i alla sammanhang. Språket som hjälpte mig mest var spanskan.*

(It was difficult and easy at the same time. Some things were easier to translate than others. Certain things you understood in the context like "Roma" and "Milano" had something to do with where he lives. The same thing with the parents' occupations or when there are names of people, such as "Alessandra" or "Bruno", he has some kind of relationship with them. When you understand the context you can guess what certain words mean and words that are repeated a lot, for instance "ho" you can figure out what they mean by trying them out in all the contexts. The language that helped me the most was Spanish.)

- (31) PF52 *Uppgiften var hyfsat lätt. Det var lätt eftersom att oftast förstod man minst ett ord i varje mening, och kunde då hitta resten av meningen med hjälp av sammanhanget Jag kunde översätta "cane" med hjälp av att den var "grande e nero" till chien. Jag tycker definitivt att franskan hjälpte mig mest av franska, engelska och svenska.*

(The task was quite easy. It was easy because usually you could understand one word in each sentence and then you could find the rest of the sentence with help of the context. I was able to translate "cane" (dog) with the help that it was "grande e nero" (big and black) into chien (dog). I definitely think that French helped me the most of French, English and Swedish.)

The students who had studied German found the task difficult and two of their reflections are presented in example (32) and (33):

- (32) PE34 *Jag tyckte att uppgiften var väldigt svår eftersom jag läser tyska och det är inte alls likt italienska. Sammanhanget hjälpte inte mig för jag fick inte ihop meningarna alls tyckte jag. Jag gissade mig fram på vartenda ord förutom dem jag nämnde tidigare i enkäten.*
(I thought that the task was very difficult because I study German and it is not at all similar to Italian. The context did not help me because I could not make sense of the sentences at all, I thought. I guessed every word apart from the ones I mentioned earlier in the questionnaire.)
- (33) PE36 *Jag tyckte att det var ganska svårt eftersom jag läser tyska och det är ett germanskt språk och italienska är latinskt och då är orden väldigt olika. Jag använde mig mest av meningsbyggnaden eftersom den är relativt lik det jag kan redan, då kan man gissa ord.*
(I thought it was quite difficult since I am studying German and that is a Germanic language and Italian is a Latin (Romance) language and then the words are very different. I mainly used sentence structures because that is relatively similar to what I already know, then you can guess words.)

4.3 Results from the psychotypology questionnaire

The psychotypology questionnaire consisted of five questions regarding the participants' perception of the similarities of the languages involved in the study. The results are presented in Table 3.

Table 3. Psychotypology survey per group

		English	French	Spanish
Which language do you believe to be the most similar to Italian?	English	0	0	0
	French	1	5	2
	Spanish	20	11	21
Which language do you believe is the easiest to learn for a person with Swedish as a native language?	English	20	15	23
	French	0	1	0
	Spanish	1	0	0
Which language pair do you think is most similar in general?	Swedish-English	1	1	2
	Swedish-French	0	0	0
	Swedish-Spanish	0	0	0
	Spanish-Italian	19	13	20
	French-Italian	1	2	1
	English-Italian	0	0	0
Which language pair do you think is most similar regarding vocabulary?*	Swedish-English	1	2	0
	Swedish-French	0	0	1
	Swedish-Spanish	2	0	1
	Spanish-Italian	15	10	18
	French-Italian	1	2	2
	English-Italian	2	0	0
Which language pair do you think is most similar regarding grammar?*	Swedish-English	70	5	6
	Swedish-French	1	0	0
	Swedish-Spanish	11	0	1
	Spanish-Italian	1	4	13
	French-Italian	1	5	1
	English-Italian		0	1

*The numbers in the French and the Spanish group do not add up to the group size because three students did not answer this question.

The answers to the first question show that 52 (87 %) of the participants believed that, in general, Spanish is the language that is most similar to Italian and 8 (13 %) answered French. It is interesting to note here that 60 % of the participants had studied Spanish. This means that even those who had not studied Spanish considered this language to be the most similar to Italian.

All but two students believed English to be the easiest language to learn for someone with Swedish as L1. There was a follow-up question where they could write comments on why they believed this to be the case. The most common comments were that the grammatical structures of Swedish and English are similar, that English does not have grammatical gender as, for instance, French does, and that the two languages share many words, or that Swedish has borrowed many words from English. Others wrote that Swedish speakers come in contact with

English every day through music, television, social media, etc. A few students in the English group also mentioned that English is the easiest because Swedes start learning English at an earlier age than the other two languages. One student answered that French was the easiest language to learn because Swedish was influenced by French a long time ago and therefore has many loan words from French, such as 'toalett' ('toilet') and 'trottoar' ('pavement'). One answered Spanish because, according to this student, "Spanish is extremely easy to learn".

The distribution of the answers to question 3 was comparable to that of the answers to question 1. Most students (87 %) considered the language pair Spanish/Italian to be the most similar of the six pairs they had to choose from.

Questions 4 and 5 concerned vocabulary and grammar respectively. The answers to these two questions were more diverse than those to the previous question. The majority (75 %) chose the language pair Spanish/Italian to be most similar in vocabulary, but only 49% chose this language pair to be most similar in grammar, and 31 % chose Swedish/English for grammatical similarities.

The associations between the groups and the choices that the students within each group made were tested statistically using Fisher's exact tests, one for each question. The respective *p*-values for questions 1 to 5 were .082, .258, .889, .348 and .148. The only question that received a relatively low *p*-value was thus question 1, since comparatively many students in the French group chose French to be the more similar language to Italian than Spanish. None of the test outcomes, however, is strictly speaking significant.

5 Discussion

The objective of the present study has been to investigate how Swedish L1 upper secondary students process translation from Italian, an unknown language, into a known foreign language, English L2 or French and Spanish L3. The quantitative results of the analysis of the overall task accuracy showed that the Spanish group reached the highest task accuracy, the French group second and the English group reached the lowest results. The results also showed that there was considerable variation between the students' overall task accuracy, with the lowest individual results in the English group and the highest in the Spanish group. There might be several reasons for these results. Previous research has shown that Spanish and Italian, at least regarding the number of cognates and language pair similarity, are the most similar of the Romance languages (Schepens, Dijkstra & Grootjen 2012). The majority of the participants in the present study also perceived Spanish to be most similar to Italian, even those who had not studied Spanish. However, the students in the English group who had studied Spanish for as long as those in the Spanish group did not achieve the same high results as the students who were asked to translate to Spanish. The contradiction between these two results suggests that the level of activation of the background languages, which is possibly at a processing level, may be more important than the perceived similarity between the languages. Since the students in the English group were asked to translate the text

into English, Spanish might not have been activated to the same extent. As De Bot (2004) proposes:

Access to words in the lexicon is non-selective, i.e. words from more than one language compete for activation both in production and perception, but a – still to be defined – minimal level of proficiency/activation is needed to have words from a language play a role in the selection process, i.e. their default level of activation should be high enough to make them competitive (De Bot 2004: 23-24).

A previous study by Smidfelt (2015) also examined the role of the background languages of multilingual upper secondary students while translating an Italian text. However, in that study the participants were asked to translate the unknown words orally, by means of think-aloud protocols, into Swedish, their L1, and the results showed that even the students who had studied Spanish stated that Swedish and English were the languages that they thought helped them the most. As compared to the results in the present study this could indicate that the languages activated might be task specific, as Tytus (2018) also points out, and in our studies it might depend on which language the participants are asked to translate to.

The qualitative part of the study in the form of the retrospective questionnaire brought to light how the students approached an unknown language and the strategies that they used to translate the text as accurately as possible. The participants were not only able to translate single words with the aid of their previous language knowledge but, as their comments give evidence of, there were also several indications of metalinguistic awareness, which has been identified as a major component of multilingual competence (Jessner 1999, 2006, Bono 2011, Gibson & Hufeisen 2011). Furthermore, the participants also commented on similarities of the constructions of the sentences and phonological similarities between the languages, especially French and Spanish, even though they did not pronounce the words aloud. Many of the participants also commented on the fact that they were aided by the context, in particular that if they could understand one or a few words in a sentence, they could infer the meaning of the following words.

With respect to which words or phrases that the participants most often translated incorrectly, or omitted, the results of the three groups were quite similar. However, the context sometimes appeared to mislead them, to the extent that in some case it seemed as though the role of the context overruled cognate similarities. This result is comparable to the results from Gibson & Hufeisen (2003) in which there were several instances of contextual cues being more important than cognate similarities for their participants. In the present study it also seemed as though the structure of the text was important for how the participants interpreted the phrases, as was evident in the last phrase of the text, *leggo molto*, which was inferred as a closing statement of a letter. Hence, these results seem to indicate that even though the participants in this study had no knowledge of Italian and there were instances of clear cognate similarities between the words in question, the role of the context and the structure of the text was still in some cases more important than the similarities between the words.

The results of the psychotypology questionnaire showed that a majority of the students believed Spanish to be the language most similar to Italian. This is also what research has indicated, at least regarding the number of cognates and language pair similarity as mentioned above (Schepens, Dijkstra & Grootjen 2012). With regard to the answers to all five questions in the questionnaire, there were no statistically significant differences between the groups. Furthermore, all but two students believed English to be the foreign language that is the easiest to learn for someone with Swedish as L1. They stated different reasons for this, such as similarities of grammatical structures, the fact that they come in contact with English on a daily basis using the internet, watching television, listening to music, etc.

In conclusion, the present study has brought to light several interesting features of how Swedish L1 learners process an unknown language in a translation task. It appears that the level of activation and use of the background languages might depend on which language the students translate into, and that L1 Swedish is activated less when they are not asked to translate into this language. Moreover, as the retrospective questionnaires give evidence of, the students are not only aware of cognate similarities between the languages in question, but also of structural and phonological similarities, which could potentially be useful in the foreign language classroom. It is also a way to make students aware of the usefulness of having knowledge of more than one foreign language when acquiring another foreign language.

Acknowledgement

The authors gratefully acknowledge Lund University Humanities Lab.

References

- Bardel, Camilla & Christina Lindqvist (2007), "The role of proficiency and psychotypology in lexical crosslinguistic influence. A study of a multilingual learner of Italian L3", *Atti del VI Congresso Internazionale dell'Associazione Italiana di Linguistica Applicata, Napoli, 9-10 febbraio 2006*, Perugia: Guerra Editore, 123-145.
- Bono, Mariana (2011), "Cross-linguistic interaction and metalinguistic awareness in third language acquisition", in De Angelis, Gessica & Jean-Marc Dewaele (eds.), *New trends in crosslinguistic influence and multilingualism Research*. Bristol: Multilingual Matters, 25-52.
- Cenoz, Jasone (2013), "Defining multilingualism", *Annual Review of Applied Linguistics*, 33: 3-18.
- De Bot, Kees (2004), "The multilingual lexicon: Modelling selection and control", *International Journal of Multilingualism*, 1(1):17-32.
- Dijkstra, Ton (2003), "Lexical processing in bilinguals and multilinguals", in Cenoz, Jasone, Ulrike Jessner, & Britta Hufeisen (eds.), *The Multilingual Lexicon*. Dordrecht: Kluwer, 11-26.

- Gibson, Martha & Britta Hufeisen (2003), "Investigating the role of prior foreign language knowledge", in Cenoz, Jasone, Ulrike Jessner, & Britta Hufeisen (eds.), *The Multilingual Lexicon*. Dordrecht: Kluwer, 87-102.
- Gibson, Martha & Britta Hufeisen (2011), "Perception of preposition errors in semantically correct versus erroneous contexts by multilingual advanced English as a foreign language learners: Measuring metalinguistic awareness", in De Angelis, Gessica & Jean-Marc Dewaele (eds.), *New trends in crosslinguistic influence and multilingualism research*. Bristol: Multilingual Matters, 74-85.
- Hall, Christopher J., Denise Newbrand, Peter Ecke, Ulrike Sperr, Vanessa Marchand & Lisa Hayes (2009), "Learners' implicit assumptions about syntactic frames in new L3 words: The role of cognates, typological proximity and L2 status", *Language Learning*, 59: 153-203.
- Hammarberg, Björn (2001), "Roles of L1 and L2 in L3 Production and Acquisition", in Cenoz, Jasone, Britta Hufeisen & Ulrike Jessner (eds.), *Cross-linguistic influence in third language acquisition: Psycholinguistic perspectives*. Clevedon: Multilingual Matters, 21-41.
- Hammarberg, Björn (2016), "Flerspråkighet och tredjespråksinläring – några grundbegrepp", in Bardel, Camilla, Ylva Falk & Christina Lindqvist (eds.), *Tredjespråksinläring*. Lund: Studentlitteratur, 33-58.
- Heeringa, Wilbert, Jelena Golubovic, Charlotte Gooskens, Anja Schüppert, Femke Swarte & Stefanie Voigt (2013), "Lexical and orthographic distances between Germanic, Romance and Slavic languages and their relationship to geographic distance", in Gooskens, Charlotte & Renée van Bezooijen (eds.), *Phonetics in Europe: Perception and Production*. Frankfurt am Main: Peter Lang, 99-137.
- Herwig, Anna (2001), "Plurilingual lexical organisation: Evidence from lexical processing in L1-L2-L3-L4 translation", in Cenoz, Jasone, Britta Hufeisen & Ulrike Jessner (eds.), *Cross-linguistic influence in third language acquisition: Psycholinguistic perspectives*. Clevedon: Multilingual Matters, 115-137.
- Jessner, Ulrike (1999), "Metalinguistic awareness in multilinguals: Cognitive aspects of third language learning", *Language awareness* 8(3 & 4):201-209.
- Jessner, Ulrike (2006), *Linguistic awareness in multilinguals. English as a third language*. Edinburgh: Edinburgh University Press.
- Kellerman, Eric (1983), "Now you see it, now you don't", in Gass, Susan & Larry Selinker (eds.), *Language transfer in language learning*. Massachusetts: Newbury House Publishers, 112-134.
- Kellerman, Eric (1995), "Cross-linguistic influence: transfer to nowhere?", *Annual Review of Applied Linguistics*, 15:125-150.
- Kemp, Charlotte (2009), "Defining multilingualism", in Aronin, Larissa & Britta Hufeisen (eds.), *Exploration of multilingualism: Development of research on L3, multilingualism and multiple language acquisition*. Amsterdam: John Benjamins, 11-26.
- Lemhöfer, Kristin, Ton Dijkstra & Marije Michel (2004), "Three languages, one ECHO: Cognate effects in trilingual words recognition", *Language and Cognitive Processes*, 19(5): 585-611.

- Lindqvist, Christina (2015), "Do learners transfer from the language they perceive as most closely related to the L3? The role of psychotypology for lexical and grammatical crosslinguistic influence in French L3", in De Angelis, Gessica, Ulrike Jessner & Marijana Kresić (eds.), *Crosslinguistic influence and crosslinguistic interaction in multilingual language learning*. London: Bloomsbury Academic, 231-252.
- Marx, Nicole (2011), "Reading across the Germanic languages: Is equal access just wishful thinking?", *International Journal of Bilingualism*, 16(4): 467-483.
- McArthur, Tom (ed.) (1992), *The Oxford Companion to the English Language*. Oxford: Oxford University Press.
- Mieszkowska, Karolina & Agnieszka Otwinowska-Kasztelanic (2015), "Is A2 in German better than B2 in French when Reading Danish? The Role of Prior Language Knowledge when Faced with an Unknown Language", in De Angelis, Gessica, Ulrike Jessner & Marijana Kresić (eds.), *Crosslinguistic Influence and Crosslinguistic Interaction in Multilingual Language Learning*. London: Bloomsbury Academic, 199-230.
- Möller, Robert & Ludger Zeevaert (2015), "Investigating word recognition in intercomprehension: Methods and findings", *Linguistics*, 53(2): 313-352.
- Peyer, Elisabeth, Irmtraud Kaiser & Raphael Berthele (2010), "The multilingual reader: advantages in understanding and decoding German sentence structure when reading German as an L3", *International Journal of Multilingualism*, 7(3): 225-239.
- Ringbom, Håkan (1987), *The role of the First Language in Foreign Language Learning*. Clevedon: Multilingual Matters.
- Ringbom, Håkan & Scott Jarvis (2009), "The importance of cross-linguistic similarity in foreign language learning", in Long, Michael, H. & Catherine, J. Doughty (eds.), *The handbook of language teaching*. Chichester: Blackwell Publishing, 106-118.
- Schepens, Job, Ton Dijkstra & Franc Grootjen (2012), "Distributions of cognates in Europe as based on Levenshtein distance", *Bilingualism: Language and Cognition*, 15(1): 157-166.
- Schepens, Job, Ton Dijkstra, Franc Grootjen & Walter J. B. van Heuven (2013), "Cross-language distributions of high frequency and phonetically similar cognates", *PLoS ONE*, 8(5): 1-15.
- Schweers, Chester William Jr. (1993), *Variation in cross-linguistic influence on interlanguage lexicon as a function of perceived first-language distance*. Doctoral thesis. New York: New York University.
- Sercu, Lies (2007), "Acquiring multilingualism at school. What translation tasks tell us about adolescents' Use of the multilingual lexicon", *International Journal of Multilingualism*, 4(1): 52-75.
- Singleton, David (1987), "Mother and other tongue influences on learner French: A case study", *Studies in Second Language Acquisition*, 9(3): 327-345.

- Smidfelt, Linda (2015), *Il processo delle inferenze lessicali in italiano L3 - il ruolo delle lingue apprese in precedenza e altre strategie di comprensione*. Licentiate Thesis. Lund: Lund University.
- Smidfelt, Linda (2018), "An intercomprehension study of multilingual Swedish L1 speakers reading and decoding words in text in Italian, an unknown language", *Lingua*, 204: 62-77.
- Szubko-Sitarek, Weronika (2011), "Cognate facilitation effects in trilingual word recognition", *Studies in Second Language Learning and Teaching*, 1: 189-208.
- Swarte, Femke, Anja Schüppert & Charlotte Gooskens (2015), "Does German help speakers of Dutch to understand written and spoken Danish words? The role of non-native language knowledge in decoding an unknown but related language", in De Angelis, Gessica, Ulrike Jessner & Marijana Kresic (eds.), *Crosslinguistic influence and crosslinguistic interaction in multilingual language learning*. London: Bloomsbury Academic, 173-197.
- Tytus, Agnieszka Ewa (2018), "Active and dormant languages in the multilingual mental lexicon", *International Journal of Multilingualism*, Advanced online publication.
- Van Bezooijen, Renée & Charlotte Gooskens (2007), "Interlingual text comprehension: Linguistic and extralinguistic determinants", in ten Thije, Jan, D. & Ludger Zeevaert (eds.), *Receptive Multilingualism. Linguistic analyses, language policies and dialectic concepts*. Amsterdam: John Benjamins, 249-263.