Recent research suggests that multilingual students tend to use their complete language repertoires, particularly their L1, when writing in a non-native language (e.g. Cenoz & Gorter 2011; Wang 2003). While there is some international research on the L2 and L3 writing process among bilinguals, the L2/L3 writing process of bilingual and multilingual individuals in the Swedish context remains unexplored. This study, carried out in a Swedish secondary school, focuses on 131 bi- and multilingual students’ (age 15-16) self-reported languages of thought while writing an essay in English, which is a non-native language. Drawing on the translanguaging framework (Blackledge & Creese 2010; García 2009) and a model of the L2 writing process (Wang & Wen 2002), the questionnaire data of the present study reveal that the participants’ L1 is reported to be heavily activated during the L2 writing process, particularly at the pre-writing, planning stage. Additionally, the emergent bilingual participants who grew up as monolinguals (L1 Swedish) report a greater tendency to transition to thinking in the target language (English, their L2) once they have reached the actual writing stage than some of the emergent trilingual participants who grew up as bilinguals (of Swedish and another L1, used primarily in the home). On the basis of these findings, we suggest a need to move away from the monolingual teaching practices common in Swedish schools, allowing space for students to translanguage as they are engaging with writing tasks in a non-native language.

Keywords: L2 writing, L3 writing, bilingual, multilingual, translanguaging

1 Introduction

There is considerable interest in how multilingual individuals make use of their language repertoires when engaging in learning tasks (e.g. Cenoz & Gorter 2011; Creese & Blackledge 2010; van Weijen et al. 2009) and in the mechanisms more generally involved in L3 acquisition (Bardel & Falk 2007; Cenoz et al. 2001; Falk & Bardel 2010). Results show that multilinguals naturally draw on their entire linguistic repertoires, and in the research literature, their multilingual
competence is now often portrayed as a resource that facilitates rather than hinders learning (e.g. Canagarajah 2011; Cenoz & Gorter 2011; Creese & Blackledge 2010; Falk & Bardel 2010; Garcia 2009; Hornberger & Link 2012). This has led to the advancement of the concept of translanguaging (Blackledge & Creese 2010; Creese & Blackledge 2010; García 2009; García et al. 2012) and to an interest in the role of a learner’s background languages in L3 acquisition and multilingual processing (Falk & Bardel 2010). The former concept, translanguaging, “stresses the flexible and meaningful actions through which bilinguals select features in their linguistic repertoire in order to communicate appropriately” (Velasco & García 2014: 7). Whereas the concept of code-switching considers two languages to be separate systems, the translanguaging framework does not view the languages of multilingual individuals as separate linguistic systems (Velasco & García 2014). In addition to occurring naturally and spontaneously, research has revealed that translanguaging can be beneficial in teaching in several respects: i) the message of the instructor may be more easily conveyed and comprehended and be more deeply processed by the students if students’ background languages are drawn on and students engage in dual or multiple language processing (Baker 2006; Creese & Blackledge 2010; Cheng 2013; García et al. 2012; Williams 1994), ii) students can communicate in several languages they know in order to get their point across in the classroom (Arthur & Martin 2006; Lin & Martin 2005), iii) the development of the weaker language can be facilitated (Baker 2006); iv) home-school links and co-operation can be increased (Baker 2006); v) the integration of fluent speakers with early learners can be more easily achieved (Baker 2006); vi) increased student motivation (Lin 1999) and vii) increased student participation in teacher-led discussion (Källkvist 2013a; 2013b).

The translanguaging framework is consistent with other current conceptualizations and perspectives of multilingualism, notably Focus on Multilingualism (Cenoz & Gorter 2011), Multicompetence (Cook 1992), the Dynamic Model of Multilingualism (Herdina & Jessner 2002) and Dynamic/Complex Systems Theory (de Bot et al 2007; Larsen-Freeman & Cameron 2008, cf. Cenoz & Gorter 2011). According to these frameworks/models, knowledge of different languages is conceived of as interactive and flexible in the minds of multilingual individuals. This is also consistent with Grosjean’s (2001, 2008) notion of language mode, according to which different languages known by a multilingual individual can have different levels of activation depending on the interlocutor and the context. In contrast to the more traditional perspective towards multilingualism, which views different languages as being separated in multilinguals’ minds, “the interaction among languages” is highlighted, focusing on “the acquisition and use of second and additional languages in a social context” (Cenoz & Gorter 2011: 360). Languages are thus conceived of as being joined by soft rather than hard boundaries in the mind, attested by multilingual individuals’ translanguaging practices.

Drawing on these perspectives, we focus on the ‘language of thought’ among bi- and multilingual 15-16-year-old students in an urban secondary school in Sweden - a context in which translanguaging patterns have previously not been studied (cf. Tholin 2012). By ‘language of thought’ we refer to Cohen’s definition of inner speech, “that is the thinking we do in our minds that is in the form of words rather than images or symbols.” (1995:2). As noted in the literature, research on students’ use of their language repertoires in writing tasks is scant (Canagarajah 2011), and research into the learning of English and other
additional languages by multilingual, migrant students in Swedish education is virtually non-existent (Tholin 2012). Moreover, essay writing is a high-stake task for these students as it figures prominently in the Swedish national test for English. In what follows we first outline the language ecology in Sweden, with particular attention to the role and distribution of languages in the school curriculum. We then review existing research on multilinguals’ use of their language repertoires when writing in English, which is a non-native language to the participants. Drawing on a model of the L2 writing process, we then examine the self-reported activation of the background languages among 15-16-year old students in Sweden writing in English. Finally, we suggest implications for English-as-a-foreign language classrooms in Swedish schools.

2 The language ecology of Swedish education

Although Sweden has been a multilingual polity for centuries, it has traditionally portrayed itself, and has typically been perceived, as a monolingual country with the national language, Swedish, as the majority language (Hult 2004; Tholin 2012). Mandatory schooling in Sweden is nine years, beginning at age 7. Swedish is the dominant medium-of-instruction. A growing number of schools are offering immersion education in English or other languages (e.g. French or German); by law (the Swedish Education Act) such schools are permitted to offer 50% of the curriculum in another language or other languages, but the remaining 50% must be taught in Swedish. The status of Swedish was recently reinforced through the passing of the Swedish Language Act (SFS 2009:600) in 2009 which made it Sweden’s “principal language” (section 4). Three school subjects have special status in Swedish mandatory education: Mathematics, Swedish and English, in that a pass grade for each of these three subjects is required for entry to (non-compulsory) upper-secondary school (ages 16-19). English has been a mandatory school subject throughout compulsory school since 1962. It is introduced either in school year 1, 2, 3 or 4, depending on decisions made at the municipal level. English is the only compulsory foreign language, but an additional foreign language is introduced as an option in year 6 (age 12), typically either French, German or Spanish. In many municipalities, a third additional language is offered as an option in year 8. At upper-secondary school, yet another additional foreign language can be chosen.

Sweden’s monolingual image manifests itself in school curricula and syllabi as having “a traditional monocultural reference point” (Tholin 2012: 2), which may lead to the marginalization of students from other backgrounds (von Brömssen 2006). According to recent statistics, 20.7% of pupils in Sweden have a mother tongue other than Swedish (Swedish National Agency for Education 2012), a number which can be expected to grow in the years to come. A study by the Swedish Schools Inspectorate revealed that students with a non-Swedish background received lower grades than students with a native Swedish background (Swedish Schools Inspectorate 2010). The Inspectorate attributes this finding to teachers and other school staff insufficiently taking into account the social and language backgrounds of the non-Swedish students. Nowadays, there is a range of different, typologically unrelated mother tongues represented in Swedish classrooms. In the data which we collected in one school in an urban area in Sweden, the following L1s are represented: Albanian, Arabic, Bosnian,
Danish, German, French, Hungarian, Italian, Kurdish, Macedonian, Mandarin, Polish, Serbian, Spanish, Taiwanese, Thai and Vietnamese. This linguistic diversity poses a specific challenge to schools. Most teachers are native Swedes, and – given the range of L1s that are often represented in a classroom today - cannot be expected to translanguage with all the students in their mother tongues. Typically, the teacher will be able to translanguage through the use of Swedish and English, and the beneficial translanguaging practices identified by previous research thus may aid mainly students who know Swedish well.

The languages of migrated minorities in Sweden are not totally absent in the school setting, however. Given a sufficient number of students and the availability of a teacher, Sweden offers mother-tongue tuition as an option to school pupils who are exposed to another language than Swedish by at least one care-giver and who use this language in the home on a regular basis. Typically, a teacher who is a native speaker of the language meets with small groups of students once a week for forty minutes. This provides multilingual students some opportunity to maintain and develop their home language also at school. However, as stated above, little is known about how multilingual pupils make use of their language repertoires when engaged in school work. As a preliminary, we now turn to previous research on the activation of background languages in L2 and L3 writing.

3 Multilinguals’ use of their background languages in L2 and L3 writing

Activation of students’ background languages has been found to occur naturally when bilingual and multilingual individuals write in their L2 and other additional languages (cf. reviews in e.g. Murphy & Roca de Larios 2010; Tullock & Fernández-Villanueva 2013; van Weijen et al. 2009; Wang & Wen 2002). Existing research has focused on L2 writers’ use of their L1 for a number of different purposes, including generating and organising ideas for the content and structuring of the text (Murphy & Roca de Larios 2010; Wang & Wen 2002), for controlling the writing process (Wang 2003; Wang & Wen 2002) and for solving linguistic problems such as vocabulary issues (Wang 2003). Some studies suggest that less proficient L2 learners are more likely to rely on their L1 than more proficient learners (Uzawa 1996; Wang 2003; Wang & Wen 2002) whereas other studies have shown that the L1 is resorted to regardless of proficiency level, albeit for different purposes (Murphy & Roca de Larios 2010; van Weijen et al. 2009; Wang 2003). For instance, in Wang’s study (2003), the low-proficient participants used the L1 mainly to solve lexical problems whereas the more highly proficient writers used their L1 to clarify text concepts, enrich contextual information and for “shaping their discourse as a whole” (2003: 367). Such findings suggest that switching to the L1 while performing complex tasks may be a natural cognitive strategy as well as be beneficial to learners regardless of their proficiency level.

Studies of L3 acquisition and use, i.e. involving individuals who have already acquired an L1 and an L2, have mainly focused on vocabulary (Falk & Bardel 2010; Tullock & Fernández-Villanueva 2013; Cenoz et al. 2001; Cenoz & Gorter 2011) but also on syntax and, to a lesser extent, phonology (Falk & Bardel 2010). The L3 acquisition process appears to be more complex (if not necessarily more
difficult) than that of L2 acquisition because the L3 learner has more linguistic systems in the mind that may interact in multiple ways (Cenoz & Gorter 2011; Falk & Bardel 2010). The role of learners’ background languages has been one focus of attention by L3 researchers, and the growing body of research has revealed that both the L1 and the L2 become activated in the L3 acquisition process (Falk & Bardel 2010). The following factors have been shown to impact on whether a particular background language is used or activated when the intention is to use a specific target language: proficiency level (e.g. high vs low proficiency), typology (e.g. typologically close vs distant) and recency of use (e.g. recent vs remote) and L2 status (i.e. the fact that a language has been learned as an L2) (Falk & Bardel 2010). Studies of the L3 writing process are relatively scant, but there are two previous studies of immediate relevance to this paper. Cenoz & Gorter (2011) studied 165 Basque/Spanish bilinguals writing in three different languages, Basque, Spanish and English, with English being their L3. The study focuses on students’ general writing skills and switches between the three languages when writing on the same topic in Basque, Spanish and English. Their results, revealed by correlation analyses on scores of the essays written in each of the three languages, show that the participants apply similar general writing skills across all three languages, and that switches were multidirectional, i.e. there was transfer from L1 to L3, from L2 to L3 and from L3 to L2 and even from L3 to the L1. The most frequent direction of lexical transfer was from the L1 (Basque or Spanish) and L2 (Basque or Spanish) to L3 (English). Although lexical transfer from L3 (English) to Basque or Spanish did occur, this was an infrequent phenomenon, which Cenoz & Gorter explain by the participants’ proficiency level, i.e. their proficiency in English being considerably lower than in Basque and Spanish, and by the recency of use; students use Basque and Spanish in the community, which is not the case with English.

The second study, Tullock & Fernández-Villanueva (2013), studied 10 trilingual (Spanish/Catalan/German) 16-17-year-old school students who were in a German-immersion school in Spain as they wrote an essay in English (their L4) while thinking aloud. Results of the analysis of the think-aloud protocols reveal that all three background languages were activated while the students were writing in English, but eight of the ten participants activated mainly their L1. In general, however, Spanish and German were activated more often than Catalan. Both German and Spanish have stronger status in the school; German is the medium of instruction and Spanish is used in the community and has instructional support in the school (as Spanish is a school subject) whereas Catalan is more of a non-academic language to these students. In explaining their findings, Tullock & Fernández-Villanueva draw on the factors of recency of use (German and Spanish being media of instruction in the school) and proficiency level (participants’ who were native speakers of German and Spanish had lower proficiency levels in Catalan, whereas the native speakers of Catalan had higher proficiency levels in German and Spanish). In lexical searches, seven of the ten participants used 3 or 4 languages, but most lexical searches involved the participants’ L1, which again can be explained by proficiency level.

Taken together, this previous research shows how multilingual individuals draw on their entire linguistic repertoires, both in social interaction and when engaging with learning tasks in an additional language. In the international research literature, monolingual teaching practices are being questioned and are giving way to pedagogy that recognizes students’ multicompetence (cf. e.g. Canagarajah 2011; Creese & Blackledge 2010; García & Sylvan 2011; Hall & Cook
2012; Hornberger & Link 2012). In the Scandinavian setting, for example in Sweden, the number of multilingual students is steadily growing, but there is little, if any, research on multilingual, migrant students’ learning of foreign languages, including English (Tholin 2012), and – as stated previously - the Swedish Schools Inspectorate has drawn attention to the fact that migrant students’ linguistic resources and background are not being recognized and valued in Swedish schools. Indeed, in Sweden, monolingual teaching practices remain the norm (Tholin 2012). In this paper we suggest a shift away from the idea that languages are best learned and taught monolingually. We examine a sample of year-nine students and their self-reported use of their linguistic repertoires while engaging with an essay task in English. We focus both on emergent bilingual students who grew up in Sweden and on multilingual students, who are bilingual users of Swedish and another L1, used in the home and, for most of the participants, also at school during mother-tongue-tuition classes. As our focus is on writing in a non-native language, we now turn to considering a model of the L2 writing process, which will be used as a basis for analysing our data.

4 A model of the writing process

In exploring bi- and multilingual students’ use of their background language(s) when writing in English, the present study draws on the composing process model of writing in an educational context developed by Wang and Wen (2002) based on previous models of writing (esp. Flower & Hayes 1981). The model was developed on the basis of their empirical research on the L2 writing of Chinese L2 learners of English. It distinguishes five composing activities involved in the L2 writing process: task-examining (1), idea-generating (2), idea-organising (3), process-controlling (4) and text-generating (5).

Briefly, task-examining refers to the interpretation and processing of the instructions for the writing assignment provided. Although this is usually the starting-point for any writing task in an academic context, the learner may refer back to the instructions several times during the writing process to double-check on them. Idea-generating and idea-organising relate to the processes involved in, respectively, conceptualizing the content (ideas) of the text and organising the different ideas into larger message units that ultimately form a coherent text. The fourth process, process-controlling, refers to structuring the text, for instance wording a suitable title, paragraphing the text as well as writing an appropriate introduction and ending. The fifth and last activity, text-generating, concerns the stage when the student puts pencil to paper (or fingers to keys) and actually starts writing.

All the Chinese L2 learners of English in Wang and Wen’s study (2002) engaged in all five thought processes, although to varying degrees. Note that the participants in Wang & Wen's study were monolingual Mandarin speakers who became bilingual in Chinese (their L1) and English (their L2) through education. In order to test Wang & Wen’s model in other contexts than the one in which it was originally developed, and to more fully understand the role of, and relationship between, the various background languages in the process of writing in a non-native target language, we applied the model to analyse and compare the writing processes of emergent bilingual (Swedish, English) and
emergent trilingual (other L1, Swedish and English) learners of English as a foreign language in Sweden. We now turn to our research questions.

5 Research questions

The aim of the present study is to investigate the extent to which pupils report to be drawing on their entire linguistic repertoires when engaging with a writing task in English, which is a non-native language. In achieving this aim, we address two research questions:

1. Which of their languages do the participants report drawing on as languages of thought while writing an essay in English?
2. Do they report activating different languages for different activities (i.e. the five composing activities identified in the Wang & Wen model) during the writing process?

In addressing the above questions, we collected survey data in an urban secondary school from students in year nine (the final year of compulsory school). At this point in their education, there is particular focus on essay writing, as this forms part of a national test in English that is administered to all year-nine students. Below, we provide details of how the data were collected.

6 Method

6.1 Participants

The 131 participants in this study were all secondary school students in year nine at the same secondary school in an urban area in Sweden. They spread across six different classes and were all 15-16 years old. They had had classroom instruction in English as a foreign language for seven years. On the basis of the number of languages they had been exposed to in early childhood, they were divided into three groups. We refrain from dividing them into groups on the basis of language dominance, as dominance is hard to establish (cf. e.g. Baker 2006). What can be more easily established, on the other hand, is information about the age at which participants were first exposed to the different languages that they speak and how they use these languages in their social networks and as tools of inner thought.

The first group is the Swedish L1 group (N=82), consisting of participants who were born in Sweden and had been exposed to Swedish only by their care-givers since birth and who continued to use Swedish in their home environment. The second group comprises participants whom we consider to be simultaneous bilinguals. We refer to this group as the Simultaneous L1s group. These participants (N=17) had been exposed to two languages since early childhood: Swedish and one of the following languages: Arabic, Bosnian, Danish, German, Hungarian, Macedonian, Mandarin, Polish, Serbian and Spanish. They were either born in Sweden or had one Swedish-speaking parent. The third group of participants (N=32) encountered Swedish somewhat later than their other L1. We refer to this group as the Other L1 group, as they were exposed to an L1 other
than Swedish from birth since neither of their parents speak Swedish. Eleven different L1s were represented in this group: Albanian, Arabic, Bosnian, French, Hungarian, Italian, Kurdish, Serbiam, Taiwanese, Thai and Vietnamese. They were first exposed to Swedish either rather early through day-care in Sweden (which is available from the age of 12 months) or when moving to Sweden, and then starting day-care (prior to age 6-7) or school (at age 6-7 or older). 22 of these participants were born in Sweden whereas 10 were born abroad. All participants in the Simultaneous L1s group and the Other L1 group used their other L1 in the home with at least one parent. The majority of them were also attending mother-tongue instruction (71% and 75% respectively).

6.2 Instrument

A questionnaire was developed and used with the dual purpose of eliciting information about participants’ language backgrounds (including language use in their social networks, their self-reported proficiency in the different languages, and languages of inner thought, for example when calculating or dreaming) and the activation of the different languages they know when engaging in the task of writing an essay in English. The questionnaire was developed based on the guidelines provided in Dörnyei (2007, 2010) and Trost (2012) with regard to formulation of the questions and the order in which the questions were posed. It was written in Swedish, consisted of 19 questions and was completed during a regular lesson in school. The students were all given the same oral information prior to completing the questionnaire, i.e. informing them that the main focus of the study was to investigate their language(s) of thought while engaging in a writing task in English. In order to gauge which languages they used when writing, students were presented with the five composing activities identified by Wang & Wen (2002), which were translated into Swedish with somewhat simplified wording in order to ensure students’ comprehension. They were asked to state which language(s) they use as language(s) of thought while engaging in the five different composing activities and writing in English. Even so, we acknowledge that there is no guarantee that all participants fully comprehended exactly what was meant by each of the five composing activities.

In order to elicit information about students’ proficiency levels, participants were asked to list all the languages that they know and report their proficiency in each language on a scale ranging from 1 (“limited proficiency”) to 4 (“very high proficiency”) and indicate which language(s) they used as a language of thought when calculating, memorising a phone-number and dreaming (Marian et al., 2007). The questionnaire was piloted with one student prior to administering it to all year-nine students at the school.

When reporting their use of the different languages they know, students could tick Swedish, Albanian, Arabic, Bosnian, Macedonian, Serbian’, English and Other. If they ticked “Other”, they were asked to state what language they referred to. As this study draws on the theoretical orientations of translanguaging, multicompetence and focus on multilingualism, the questionnaire allowed participants to tick more than one language for each of the five writing activities. There were also a few open-ended questions where participants could add further information should they wish to. Most of the participants completed the questionnaire within 10-15 minutes while a smaller number of students needed 20 minutes to half an hour. Author 1 was present to assist students with any queries they might have. A total of 148 questionnaires
were collected. Due to insufficient responses in a few cases, the number of questionnaires that could eventually be retained was reduced to 131.

An important priority made was to select a sample of participants who would be highly motivated and cooperative when responding to the questionnaire (cf. e.g. Codó 2008). We therefore approached a school where one of the authors was working and knew the students. While this approach is assumed to enhance validity of participants’ responses (Dörnyei 2010), it restricts the participants in terms of number and the location to one school. We therefore see this study as primarily qualitative. Also, while the use of a questionnaire facilitates the collection of relatively large amounts of data in a short period of time, there is the obvious drawback of questionnaires providing self-reported information only (cf. Dörnyei 2010). For example, we do not know the extent to which students’ questionnaire responses coincide with the actual use. In addition, students may provide answers that they believe are the desired responses. Also, as discussed in Grosjean (2008), the language used in a questionnaire may affect participants’ answers; the language of our questionnaire was Swedish, which may have elicited more responses for Swedish than would otherwise have been the case. These limitations of questionnaires cannot be fully overcome, but we attempted to reduce them by piloting the questionnaire beforehand (to ensure that questions were written in a way that participants could understand) and by having a researcher present whom the participants knew and who explained the purpose of the questionnaire as well as answered any questions that the participants had while completing the questionnaire.

7 Results

7.1 Research question 1: students’ use of their language repertoires while writing in English

Table 1 provides the results for each of the three groups, illustrating which languages the participants reported using for each of the five composing activities outlined in Wang & Wen’s model. Calculations were made to reveal whether individual participants reported drawing on one of their languages only, or whether they reported using more languages than one. For example, one participant in the Simultaneous-L1s group reported using only his/her other L1 (used for idea-organising), whereas three participants in this group reported using both Swedish and the other L1 (i.e. ticking both Swedish and the other L1) when task-examining, idea-generating and idea-organising.

As illustrated in Table 1, Swedish was reported as the most commonly activated language of thought, particularly when task-examining and process-controlling. It is reported to be used on its own when task-examining by 66% of the Swedish-L1 participants, by 59% of the Simultaneous-L1s and by 59% of the Other-L1 participants. Among all the 131 participants, 121 (92%) report activating Swedish (either Swedish only or a combination of Swedish and one or more languages) at some stage while engaging with the essay task. English is the second most commonly reported language to be activated, and is reported to be used consistently more frequently as the only language of thought by the Swedish-L1 participants across all five composing activities. English is reported to be used on its own in particular when text-generating (59% of the Swedish-L1
participants, 41% of the Simultaneous-L1 participants, and 28% of the Other-L1 participants). The other L1 is reported to be used to a considerably lesser extent than Swedish and English. Three (18%) of the Simultaneous-L1s participants and 8 (25%) of the Other-L1 participants report activating their other L1, either on its own or in combination with either Swedish or English or in combination with both. A total of three participants (18%) report activating the other L1 on its own, one Simultaneous-L1s participant and two Other-L1 participants. What characterises all three of them is that they moved to Sweden after the age of 3. The participant in the Simultaneous-L1s group is a simultaneous bilingual of Polish and Swedish and moved to Sweden at the age of 4. She has one Swedish-speaking parent and one Polish-speaking parent and has been exposed to Swedish as well as Polish from birth although she encountered Swedish in the community around her only at age 4. The two participants in the Other-L1 group moved to Sweden at the age of 3 (from Bosnia) and 6 (from Italy) respectively. Neither of the two report having been exposed to Swedish prior to moving to Sweden.

Only few of the participants who encountered Swedish later than their other L1 report activating their other L1, however. In the Other-L1 group, there are a total of ten participants who were first exposed to Swedish some time between the age of 1 and 2. Two of them (20%) report activating only the other L1 (Bosnian and Italian respectively) at some stage while engaging with the essay task. Three of them (33%) report activating the other L1 in combination with Swedish (two speakers of Albanian and one of Thai). The remaining five participants (50%) report not activating their other L1 at all while engaging with the essay task.

In sum, Swedish is reported to be used as the only language of thought by the majority of the participants in all three groups. English is used as the only language of thought consistently more frequently by the Swedish-L1 participants than the Simultaneous-L1s and Other-L1 participants. The other L1 is reported to be used considerably less often.

7.2 Research question 2: Do students report activating different languages for different composing activities during the writing process?

Table 1 provides descriptive statistics on the number and proportion of individual participants (in each of the three groups) and the different languages and language combinations they report to use as languages of thought for each of the five composing activities distinguished in the Wang & Wen model. Results show that a) Swedish is reported to be frequently activated across all five compositing activities, either on its own or in combination with other languages; b) English is reported to be activated to a lesser extent, either on its own or in combination with other languages; c) the other L1 is reported to be activated by a minority of the participants in the Simultaneous-L1s group (18%) and the Other-L1 group (25%); d) Swedish is reported to be drawn on in particular for the purposes of task-examining and process-controlling; e) English is reported to be used in particular at the text-generating stage by all three groups; f) during text-generating, English is said to be activated on its own by a greater proportion of the Swedish-L1 participants (59%) than the Other-L1 participants (28%), while the Simultaneous-L1s participants fall in-between (41%); and g)
"Other L1" is not applicable to the Swedish-L1 group, as Swedish is their only L1. We indicate "not applicable" by a dash.

**"Other L1" is applicable to both the Simultaneous-L1s group and the Other-L1 group, as they have been exposed to another L1 besides Swedish (since birth). 0% means that "Other L1" was a possible option, but no participant ticked it.

### Table 1. Languages reported to be activated for each of the five composing activities by the participant groups

<table>
<thead>
<tr>
<th>Activity</th>
<th>No Response</th>
<th>English &amp; Other L1</th>
<th>Swedish &amp; English</th>
<th>Other L1</th>
<th>Swedish L1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text-generating</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Process-controlling</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Idea-generating</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Task-examining</td>
<td>0%</td>
<td>0%</td>
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<tr>
<td>Text-generating</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
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<td>0%</td>
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<tr>
<td>Process-controlling</td>
<td>0%</td>
<td>0%</td>
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</tr>
<tr>
<td>Idea-generating</td>
<td>0%</td>
<td>0%</td>
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</tr>
<tr>
<td>Task-examining</td>
<td>0%</td>
<td>0%</td>
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<td>0%</td>
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</tr>
<tr>
<td>Total</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
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</tr>
</tbody>
</table>

Languages of thought

(N=32) Other L1

(N=17) Simultaneous-L1s

(N=82) Swedish L1
during text-generating, Swedish is reported to be activated by larger proportions of participants in the Simultaneous-L1s group (41%) and Other-L1 group (41%) than among the Swedish-L1 participants (22%). Thus, in this sample of participants, the Swedish-L1 students report a clearer tendency towards making a transition into thinking in English as they reach the stage of writing.

In order to sharpen the focus on the proportion of participants who report activating the different separate languages rather than the language combinations, we then computed the total number of times a language was ticked as being activated (rather than whether it was ticked as being activated in combination with another language or other languages). Thus, if a participant ticked both Swedish and English for a particular composing activity, this now resulted in 1 count for Swedish and 1 count for English (rather than 1 count for ‘Swedish and English’). Following this procedure, three language categories are now possible (‘Swedish’, ‘English’ and ‘Other L1’) rather than the seven categories provided in Table 1, which facilitated presenting the results as bar charts, one for each composing activity, rather than a table. This, in turn, facilitates comparison across the three groups of participants. On the basis of this procedure, we created Figures 1-5 presented below.

As a result of eliminating the language-combination categories (e.g. English & Swedish & other L1), the percentages of participants who report activating the three individual languages (Swedish, English and other L1) in the five figures below are higher than those in Table 1. For example, 90% of the Swedish-L1 participants reported activating ‘Swedish’ for ‘task-examining’ (whether in combination with other languages or not) in Figure 1 below, compared to 66% for ‘Swedish’ in Table 1 for ‘task-examining’ among the Swedish-L1 participants.

**Figure 1.** Percentage of participants, in each group, who reported activating Swedish, English and the other L1 while task-examining.
Figure 2. Percentage of participants, in each group, who reported activating Swedish, English or the other L1 during *idea-generating*.

Figure 3. Percentage of participants, in each group, who reported activating Swedish, English and the other L1 during *idea-organising*. 
Figure 4. Percentage of participants, in each group, who reported activating Swedish, English or the other L1 during process-controlling.

Figure 5. Percentage of informants, in each group, who reported activating Swedish, English and the other L1 while text-generating.
Naturally, the results confirm those presented in Table 1; Swedish is the most frequently activated language across all three groups for all five composing activities with the exception of the participants in the Swedish-L1 group, who report more frequent activation of English than Swedish when text-generating (Figure 5). The activation of Swedish remains frequent across all five writing activities, particularly in the Other-L1 group. Another consistent result revealed is the more frequent activation of the other L1 by the Other-L1 group than by the Simultaneous-L1s group across all five composing activities. We now turn to considering these results in the light of previous research and theory accounted for at the beginning of this paper.

8 Discussion

Across all three groups, Swedish is the most frequently reported language of thought; as many as 92% of all participants report activating Swedish while engaging with an essay task in English. This agrees with previous research referred to at the beginning of this paper. Wang & Wen’s study (2002) and Tullock and Fernández-Villanueva (2013) are particularly relevant as their participants were of a similar age as ours. Wang & Wen used think-aloud data, and among their participants (18-22 years of age, undergraduate students of English) 97% used their L1 (Chinese) at some stage while writing an essay in the L2 (English). Tullock and Fernández-Villanueva’s study included 10 trilingual participants aged 16-17, eight (80%) of whom activated mainly their L1, although all three background languages were activated. Taken together, there is considerable empirical research showing that the majority of bi- and multilingual language learners in different educational settings activate other languages than the target language, mainly their L1, while writing in a non-native language. This result remains consistent regardless of whether the data are self-reported (as in the present paper) or think-aloud protocols (Tullock & Fernández-Villanueva 2013; Wang & Wen 2002).

English is reported as the second-most activated language by all three groups; it is reported to be used as a language of thought by more participants in our sample as they reach the actual writing stage (text-generating). Notable in the present study is the finding that a greater proportion of participants in the Swedish-L1 group report activating English when text-generating, particularly compared with the Other-L1 group. Instead, more participants in the Other-L1 group report thinking in Swedish while text-generating.

These results suggest that emergent bilingual students (the Swedish-L1 participants) in the Swedish context, whose L1 is the majority language, would be more likely to make the transition to thinking in English, their L2, than students who are users of three languages (Swedish, other L1 and English) and whose other L1 is a minority language. The result of there being more use of the target language when text-generating is consistent with the findings of Wang and Wen, whose participants (L1 Chinese) used their L2 (English) particularly when task-examining and text-generating. This can be explained by Grosjean’s concept of base language; when students are thinking to themselves while working on a task, any language they know may be used (and our data show that some of our participants report drawing on all languages known to them). As they start encoding text in the target language however, they are no longer communicating solely with themselves; rather, their text is communicated with a reader, in this
case their teacher, who will be marking the essay. The student knows that the teacher will accept text in English only, and therefore it seems likely that the target language (English) then may become the base language at this text-encoding stage.

The result showing that a greater proportion of the Swedish-L1 participants reported using English as a language of thought can probably partly be explained by data gained from the questionnaire on participants’ language use in their social networks and as a language of inner thought. Among the Swedish-L1 participants, English has a stronger presence in these respects than among the Other-L1 participants. Of the 82 Swedish-L1 participants, 6 (7%) report sometimes using English with friends, and 2 (2%) state that they sometimes use English with relatives. As many as 19 (23%) report dreaming either in English or in English and Swedish; 21 (26%) state that they think in English or a combination of English and Swedish when exercising; 16 (20%) report using English as a language of thought when studying; 3 (4%) state that they use English when calculating, and 1 (1%) when memorising a phone number. In the Simultaneous-L1s group, the presence of English is rather similar; 2 students (12%) report dreaming in English; 2 (12%) report activating English when memorising a phone-number and 3 (18%) when calculating, and 5 (29%) report thinking in English when exercising. In the Other-L1 group, however, English has a smaller presence. When exercising, 2 students (6%) report using English; when calculating and memorising a phone number, 1 student (3%) reports using English, and when studying and dreaming, English is only reported to be used in combination with another language (Swedish or the other L1) by 2 students (6%). The other L1, on the other hand, has a stronger presence in their social networks, and during inner-thought processes both among the Simultaneous-L1s and Other-L1 participants. In the Simultaneous-L1s group, 4 (24%) use their other L1 with both their parents and 13 (76%) with their relatives; 5 (29%) report dreaming in the other L1, 3 (18%) when memorising a phone number and when calculating. Among the Other-L1 participants, 18 (56%) use their other L1 with both their parents; 23 (72%) with their relatives; 15 (47%) when dreaming; 12 (38%) when memorising a phone number; 8 (25%) when calculating; 5 (16%) when studying, and 7 (22%) when exercising.

Even though the other L1 has a relatively strong presence in their social networks, it is reported to be activated during essay writing in English only by a minority of our multilingual participants. The few who state that they activate only their other L1 were all exposed to Swedish in the community around them only after the age of 3. This is the age sometimes referred to as constituting an approximate cut-off point for L1 acquisition to occur (so that a language encountered after age 3 is more likely to be an L2 rather than an L1) (Meisel 2008).

Another interesting finding is that the participants in the present study often report drawing on more background languages than one. This is in line with the notion of translanguaging as being a natural way of communicating among multilingual individuals. This corroborates findings in Cenoz & Gorter’s study (2011), whose participants chatted with friends on Tuenti (the Spanish version of Facebook) in their spare time. The results show that they flexibly used all the languages they knew, i.e. were engaged in translanguaging, when chatting with their friends. Tullock & Fernández-Villanueva’s study also showed that the participants, all of whom were users of four different languages, tended to use their complete language repertoires when writing in English. In the present
study, a minority of the participants with a multilingual background reported activating their other L1, however. This differs from Tullock & Fernández-Villanueva’s study. It may be explained by the fact that the languages used by Tullock & Fernández-Villanueva’s participants (Catalan, English, German and Spanish) have a strong position either in the school (German, Spanish and English) or outside of school in the community (Catalan). In the present study, the other L1s do not have a similarly strong position, neither in the community, nor in school. In addition, Tullock & Fernández-Villanueva’s study was conducted in a (German) school in Spain, which specifically advocates and encourages multilingualism among its students. In comparison, our participants were enrolled in a mainstream Swedish-medium school, surrounded by a Swedish-speaking community, where multilingualism beyond Swedish (the majority language in Swedish society) and English (which is the L2 as well as a language of high status in Sweden) is not specifically advocated.

The strong presence of Swedish as a language of thought among the Simultaneous-L1s and Other-L1 participants throughout the writing process and even at the text-generating stage can be explained by the theory of language mode and the base-language effect (Grosjean 2008). The considerable body of research reviewed by Grosjean (2008) shows that bi- and multilingual individuals activate different parts of their language repertoires on the basis of the language repertoire of their interlocutor(s). In mainstream Swedish schools, Swedish is the base language as it is spoken by all school staff. We believe, therefore, that multilingual students in this specific context activate Swedish rather than their other L1, which is used mainly as a medium of communication in the home, with relatives during visits to the former home country and with the participants’ mother-tongue teacher. This base-language effect favouring the activation of Swedish may also explain why participants report activating Swedish while process-controlling, i.e. paragraphing the text. In the school, essay writing is taught in Swedish during Swedish class. Also, since Swedish is the medium of instruction for all school subjects apart from foreign-language and mother-tongue classes, it is likely that our participants have developed academic-style literacy to a greater extent in Swedish than in their other L1. Previous research on the role of background languages reviewed above (Falk & Bardel, 2010) is also relevant here: Swedish is likely to be activated because of the factors of recency of use (being the medium of instruction in the school as well as the base language) and proficiency level (all participants in this study have high proficiency in Swedish). Thus, we believe several factors join forces, making Swedish the language most likely to be activated in the particular task in the specific context studied.

9 Concluding remarks

The present study has provided further empirical support for the frequent activation of the L1 when bi- and multilingual language users engage with a writing task in a non-native language. Our study also suggests that there are individual differences as to the extent to which a minority-language L1 is reported to be activated; some of our Simultaneous-L1s and Other-L1 participants say that they activate their other L1 whereas others state that they do not. Such individual difference has been documented in previous research (cf.
e.g. van Weijen et al. 2009), although not with participants speaking a minority-language L1 in addition to a majority-language L1 such as in the present study. Since many participants report activating their entire language repertoires when engaging with the relatively demanding task of writing an essay in a non-native language, and since this finding agrees with previous research conducted in different educational contexts and with different language combinations, we encourage tolerance for students to flexibly use their complete language repertoires while engaging with tasks aimed at advancing their proficiency in a non-native language. Studies conducted within the framework of translanguaging usually emanate from bilingual-education settings (cf. e.g. Velasco & García 2014). We see the same need for translanguaging practices in settings where the target language is a foreign language, such as in our study. Our study in combination with previous research using think-aloud data suggest that allowing students to draw on their entire linguistic resources may be particularly warranted at the stage where they are generating and organising ideas prior to encoding text in the non-native language. Breaking with monolingual teaching practices, i.e. the (strict) use of the target language only in foreign-language classrooms, and allowing space for translanguaging (cf. Wei 2011) to take place may permit for the beneficial effects of translanguaging outlined at the beginning of this paper. This would also allow writing in the L2 or L3 to be the multilingual event that it clearly is in the minds of bi- and multilingual individuals.

Our data are not without limitations as the results presented here are based on self-reported (questionnaire) data. As stated above, these self-reported data do not necessarily reveal participants’ actual use of languages of thought. Also, the language of the questionnaire (Swedish) may have favoured Swedish in line with Grosjean’s base-language effect. We have treated the data as primarily qualitative given that they were collected in one school, and replication is required before the results can be generalized to a larger population than the sample covered in this study. An obvious avenue for further research would be to gather triangulated data, using questionnaires as well as think-aloud and stimulated recall data from the same individuals in Swedish schools. Particularly, detailed studies of individual differences using such multiple data sources would enable us to better understand how and why different emergent bi- and multilingual individuals draw on their language repertoires while solving complex school tasks. Such studies would provide a much more solid empirical base than what is currently available for teachers to draw on as they make decisions on how to best provide individual support for their students.

Endnote

1 Albanian, Arabic, Bosnian, Macedonian and Serbian are the main immigrant languages represented at this school; therefore, these languages were specifically named as possible responses along with Swedish and English.
References


