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Exploring how language exposure shapes oral narrative skills in French-English emergent bilingual first graders

Cathy Cohen^{a,b,c}, Eurydice Bauer^d, Jacob Minniear^e

^a Laboratoire ICAR (UMR5191), France

^b Laboratoire d'Excellence ASLAN, (ANR-10-LABX-0081), France

^c Université Lyon 1, France

^d University of South Carolina, United States

^e Bilkent University, Ankara, Turkey

Abstract

This study explores how language exposure may shape oral narrative skills in three first grade French-English emergent bilinguals attending an international programme at a state school in France. The students come from three different home language backgrounds (English dominant; French dominant; both French and English). Parent questionnaires provide information on current and cumulative exposure and home literacy practices. Spontaneous oral narratives are elicited in French and English. Microstructure, macrostructure, and narrative quality analyses show that while one language may appear to be dominant, notably for certain microstructure skills, performance in other areas may be superior in the other language. The study highlights how different actors' agency (children, parents, siblings, teachers) may contribute to language learning trajectories and outcomes, steering dual language acquisition. For teachers, the study reiterates the complexity of language learning and the need to diversify activities to ensure that students are processing and producing language appropriately.

Keywords

Oral narrative skills; bilingual language exposure; agency; French; English; bilingual programme

1. Introduction

Numerous factors contribute to dual language acquisition in bilingual children (Pearson, 2007; Thordardottir, 2011; Unsworth, 2013), including the quantity of exposure to each language (De Houwer, 2011; Oller & Eilers, 2002; Pearson, 2007), and exposure to rich input sources, such as book reading (Paradis, 2011). Quantitative studies on oral narrative skills in bilingual children (Altman et al., 2016; Gagarina et al., 2016; Rodina, 2017; Simon-Cerejido & Gutiérrez-Clellen, 2009; Uccelli & Paéz, 2007) have uncovered certain tendencies, including associations between exposure amount and vocabulary richness (see 2.2). However, these studies do not explore in depth the nature of the language exposure contribution. As family language practices are interwoven with language biographies, bilingual children's language exposure and experiences often vary over time.

This qualitative study explores the following research question: In what ways are children's oral narrative skills shaped by language exposure and home literacy environments? We explore the question in three first grade French-English emergent bilinguals attending a state school with an

international language programme in France. Bilingual education is rare in France, where most schools have “a predominantly monolingual habitus” (Hélot, 2008, p. 205) (see 2.4). Our participants, who differed in the amount of exposure they had to each language, came from three different home language backgrounds (English dominant; French dominant; both French and English). A wordless picture book was used to elicit spontaneous oral narratives in French and English. This study utilises microstructure, macrostructure and narrative quality analyses to provide a deep analysis of the three case studies. We define microstructure features as narrative productivity, or items such as lexical richness and morphosyntax. Macrostructure features, defined as narrative structure, include elements such as characters, initiating events and resolution. Narrative quality includes accurate referencing, and use of rhetorical and literary devices. To evaluate the home language practices and background that may contribute to bilingual development, we constructed measures of current and cumulative language exposure and home literacy practices. The study sets out to provide a nuanced and detailed assessment of narrative skills in children’s two languages and to highlight the subtle interplay of different key actors’ agency in shaping language learning trajectories and outcomes in young bilinguals. We define agency here as the “socioculturally mediated capacity to act” (Ahearn, 2001, p. 112). To discover more nuanced and emergent themes in oral narratives, a case study research design is used to challenge the boundaries of otherwise quantitative studies of microstructure and macrostructure (e.g., Altman et al., 2016; Rodina, 2017; Uccelli & Paéz, 2007), and it provides novel insights into the student-specific oral narrative skills trajectories.

2. Literature Review

2.1 The role of language exposure

Numerous contextual factors contribute to the acquisition, development and maintenance of children’s bilingualism (De Houwer, 2015; Pearson & Amaral, 2014; Yamamoto, 2001). The main agents contributing to the process are parents and siblings at home, and teachers and playmates at school. Each child’s reality is composed of dynamic changes in space (locale) and time (daily schedule) leading to changes in balance between languages, as children adapt to changing communicative needs. Bilingual acquisition thus involves great degrees of variability in terms of the levels reached, and learning trajectories in each language.

Acquiring near-balanced bilingualism requires exposure to quality linguistic models (Paradis, 2011). However, exposure quantity to each language is considered to be the most determining factor for dual language acquisition (De Houwer, 2011; Oller & Eilers, 2002; Pearson, 2007; Thordardottir, 2011; Unsworth, 2013). Input quantity includes current exposure as well as cumulative exposure from birth. Participation in language interactions is also required, calling upon children to produce output in both languages (Bohman et al., 2010; Cohen, 2016), with varied interlocutors, on a range of topics and employing different language functions (Pearson, 2007).

Parental reading practices with children have been shown to relate positively to children’s language development and literacy abilities, which are critical to children’s academic success (Bauer, 2000; Bus, van IJzendoorn & Pellegrini, 1995; Leseman & De Jong, 1998). Studies have shown a close link between reading frequency and the development of general oral language skills (Mol & Bus, 2011; van Kleeck & Stahl, 2003) and vocabulary (Mol, Bus & de Jong, 2009; Sénéchal, 2006) in monolingual children. Shared parent-child reading offers repeated exposure to rich and low frequency vocabulary (DeTemple, 2001; Sénéchal et al., 2008; Weizman & Snow,

2001). For bilingual children, the richness of home language provides, not only an opportunity to strengthen home language vocabulary, but also the needed structure for supporting second language (L2) development and academic success (e.g., Baker, 2000; Cummins, 2000). The need to create a bridge between students' home language and their L2 vocabulary is important because previous studies have shown that low L2 oral language vocabulary is a serious issue for L2 learners, including those from middle to high SES homes (Armand & Maraillet, 2015; Umbel et al., 1992), and this reality can impact negatively on school performance (Oller & Eilers, 2002).

2.2 Narrative development

Understanding student narratives is also important because positive associations have been found between oral language skills and academic achievement in emergent reading, early literacy and text comprehension (e.g., Bianco, 2015; Catts, Adolf & Weismer, 2006; Dickinson & McCabe, 2001; Shanahan & Lonigan, 2013). Before becoming competent readers, young children need to acquire a set of pre-reading skills, which includes oral story-telling abilities (NICHD, 2005). Previous research has indicated that early oral narrative skills relate significantly to later reading comprehension outcomes (Gardner-Neblett & Iruka, 2015). They are also an important prerequisite for writing, and are thus essential for academic achievement (Bliss, McCabe & Miranda, 1998; Mavis, Tuncer & Gagarina, 2016). Oral narratives are an important tool for the assessment of both microstructure and macrostructure in monolingual (Schneider, Hayward & Dubé, 2006) and bilingual children (Pearson, 2002).

Previous research has shown that narratives are acquired early because of their largely linear macrostructure and temporal organisation (Berman & Slobin, 1994; Hickmann, 2003; Labov, 1972), causal organisation (Aksu-Koç & Küntay, 2001; Fayol, 2000) and easily identifiable structure (Labov, 1972). Recent quantitative studies have explored oral narrative skills in bilingual children (e.g., Altman et al., 2016; Gagarina et al., 2016; Rodina, 2017; Simon-Cereijido & Gutiérrez-Clellen, 2009; Uccelli & Paéz, 2007). Using oral narratives generated in each language from identical images enables researchers to compare multiple performance measures within and across two languages in a single ecological task. Previous studies have indicated that microstructure elements, such as vocabulary and morphosyntax, are more language specific, depend on proficiency in each language, and relate to language exposure (Cohen & Mazur-Palandre, 2018; Pearson, 2002; Rodina, 2017; Rojas & Iglesias, 2013). Several linguistic microstructure measures are pertinent for the analysis of children's narratives, including lexical productivity measured, by the number of different words (e.g., Cohen & Mazur-Palandre, 2018; Pearson, 2002; Rodina, 2017; Rojas & Iglesias, 2013; Simon-Cereijido & Gutiérrez-Clellen, 2009) and morphosyntactic accuracy (e.g., Bedore et al., 2010; Cohen & Mazur-Palandre, 2018; Pearson, 2002; Rodina, 2017). In contrast, data from several studies strongly support the hypothesis that macrostructure elements (e.g., setting, characters, resolution, internal responses) transfer between children's two languages, and thus rely on the same cognitive processes (Altman et al., 2016; Hipfner-Boucher et al., 2015; Iluz-Cohen & Walters, 2012; Rodina, 2017; Uccelli & Paéz, 2007).

While these quantitative studies often compare narrative skills in groups of young bilinguals to those of matched monolinguals, to the best of our knowledge, few studies have adopted a case study design comparing bilinguals with different home language practices and background. One notable exception is Montanari's (2004) study conducted in the United States which compared the narrative competence in the two languages of three five-year-old Spanish-English bilinguals, who had different proficiency levels in each language. Montanari examined the children's capacity to organise the narrative around an overall theme, their ability to evaluate the narrative and reach their

audience, and their appropriate use of linguistic devices to link utterances together to create a narrative text, such as cohesion and temporal perspective. Her results revealed that children produced less coherent and cohesive narratives in their weaker language, demonstrating that “impoverished linguistic resources might be detrimental for narrative competence” (Montanari, 2004, p. 449).

2.3 Literacy and wordless text

Wordless books can play a critical role in capturing children’s understanding of narration. The use of wordless books is helpful to capture children’s narrative comprehension because they allow researchers to tap into children’s existing narrative knowledge. Students from an early age have varied experiences with narratives. Paris and Paris (2003) noted that first-hand narrations from children are pervasive and are reflected in their daily life experiences such as their retelling of a birthday party they attended (Miller et al., 1997); when they display the way thematic and symbolic play are connected to stories (Pelligrini, 1985); and when they construct understandings of stories tied to book events with parents (Dickinson & Smith, 1994). All these experiences combined support children’s development of narrative schemas, which in part shape their understanding of characters, setting and problems, and the causal sequence of events in stories (Yussen & Ozcan, 1996).

Although wordless books allow students to use skills they use informally when narrating their lives, these books also provide information on students’ comprehension of text. Paris and Paris (2003) found five- to eight-year old monolinguals showed developmental gains in their comprehension scores through the reading of wordless picture books. Strong correlations were found between the number of words used to tell the story and other dependent variables, suggesting that storytelling is aligned with language assessment and story comprehension is aligned with cognitive processing. In their study, five-year-old children’s ability to construct stories using picture books correlated significantly with standardised reading assessment scores two years later (Paris & Paris, 2003). Heilmann et al. (2016) found that when bilingual children narrate wordless books they use a wider vocabulary range to describe the characters and their roles in different episodes when compared to traditional vocabulary assessments. This finding suggests that the richer the wordless book, the greater the likelihood it will capture the young learner’s imagination (Lysaker & Miller, 2013) and tap into a greater range of vocabulary than if using a different assessment tool.

Given that young children naturally have a disposition to narrate (e.g., what happened at a party), and the link between wordless book narrations and reading comprehension scores on standardised assessments, it is important to closely examine the role language(s) play(s) in emergent bilingual students’ narration of wordless picture books.

2.4 Bilingual education in international sections in France

What constitutes bilingual education differs considerably from one country to another. It is therefore important to understand the model of bilingual education in which the current study is set.

France, a country known for its “predominantly monolingual habitus” (Hélot, 2008, p. 205), has few bilingual programmes and those that have been developed are relatively recent (Hélot,

2008). The current study is set within one model of bilingual education, called *sections internationales* (henceforth, international sections). These sections, which may run from kindergarten to the end of secondary school, are found within a very small number of mainstream state schools throughout France. Each school may offer several different languages, although English sections are by far the most common¹. To be admitted to an international section, children require high level skills in the section's language and are offered support in French as a foreign language, if necessary. According to Hélot (2008), the sections offer a type of elite bilingual education catering for children who speak a dominant language in addition to French².

Educational policies and curricula in France are set at a national level by the very centralised Ministry of Education. Children in international sections follow the standard French national curriculum, taught in French. Additional time is assigned for instruction of non-linguistic subjects (e.g., literature; history) in the language of the section (e.g., English). While support is provided for both languages, ensuring high levels of bilingualism, this type of bilingual programme tends to be characterised by a strict separation between French and the other language, resulting in “a form of double monolingualism” (Hélot, 2011, p. 42). Translingual pedagogical and discursive practices supported by translanguaging researchers (e.g., García & Wei, 2014; Hélot, 2008; Palmer et al., 2014), which invite students to use their full linguistic repertoire regardless of the language of instruction, are not encouraged.

3. Methods

While numerous quantitative studies address the relationship between language exposure and narrative skills, they tend to view exposure rather globally in their analyses, using a single reading to encapsulate exposure quantity. What appears to be missing from the literature is a study that provides better insights into the detailed behaviours of emergent bilinguals. The current study uses a subset of data from a larger five-year longitudinal project, the INEXDEB project (INput et EXpérience dans le DEveloppement Bilingue) (Cohen, 2015), which set out to explore the dynamic and complex process of bilingual acquisition by examining exposure factors that might promote its development and maintenance.

INEXDEB follows 50 French-English bilingual children, 20 from first to fifth grade and 30 from fifth to ninth grade. Each year multiple rich sources of data are collected for each child, allowing both for quantitative cross-sectional and longitudinal comparisons of language development, within and across languages, and for qualitative analyses focusing on individual students, as in the current study. INEXDEB, set up by the first author of this paper, was designed in response to a call from the principal and teachers of a state elementary school with international sections in France³ (henceforth, IS) who sought to gain a better understanding of emergent bilingual students' linguistic development in order to better respond to their academic needs.

¹ <https://www.education.gouv.fr/les-sections-internationales-l-ecole-primaire-12443>

² Hélot (2008, p. 224) has observed that, “The ideology at work in the management of languages in the French education system is responsible for the widening gap between, on one hand, a form of elitist bilingualism supported and encouraged by the education system, and on the other the ignored bilingualism of minority speakers of migrant background”.

³ Pseudonyms are used for the school's and participants' names.

The current study borrows from a case study design in its approach to data analysis because it allows for “an in-depth analysis of a case, often a program, event, activity, process, or one or more individuals” (Creswell, 2014, p. 14). By focusing on only three first grade participants from the first year of Cohen’s (2015) project, the current study questions and explores how language exposure may shape oral narrative skills, through in-depth analysis which considers all data, to construct rich and complex narratives (Yin, 2014). The three participants come from different home language backgrounds: English dominant; French dominant; both French and English. Additionally, case studies provide an opportunity to share the complexities of language use in France while inadvertently challenging traditional language ideologies.

The present study provides rich information on exposure, enabling us to gain deeper insights into how different exposure types, including home literacy practices, may contribute to narrative skills. This study also aims to model holistic and descriptive assessment strategies which look beyond quantitative standardised test results to further assist teachers in developing and meeting individualised student learning outcomes. Similarly, while the quantitative studies examining microstructure and macrostructure in young bilinguals (see 2.2) provide a broad overview of children’s narrative performance, they do not explore performance in depth and compare different aspects of narrative performance to one another within the same individuals. In the current study, we conduct a fine-grained analysis of children’s narratives, adding data-driven depth to previous work. The current study seeks to broaden our understanding of how exposure shapes oral narrative skills in order to complement previous research findings.

The three authors come to this study from different research orientations yet with a common interest in understanding young bilinguals in educational settings. The first author was raised in England but has resided in France for over thirty years. She brings a keen understanding of the two cultures, which impacted the language development of her own French-English bilingual children. Her deep knowledge of the French education system as a whole, and of international sections more specifically, coupled with her research on the contribution of language exposure to language development in French-English bilingual children, laid important foundations for the current study. The second author was born in Haiti where she spoke French and French Creole as her two first-languages. Although most of her life experiences have taken place in the USA, she views herself as a multilingual whose identities are shaped by her language practices. She too brings the experience of raising bilinguals in a monolithically defined country. Her experiences researching biliteracy and her life experiences shaped how she viewed the students in France. The third author is a multilingual American who has worked in second language teacher education in the USA, France, and Turkey. His recent experience in the French education system as a former teacher, teacher educator, and student teacher supervisor provided important insights into the study context. Our collective understanding of our experiences and how they shaped and influenced us, informed how we viewed the practices of the various participants in our study.

3.1 Setting

The study was conducted in the English section of the IS, which has other language sections as well. The IS runs from grades one to twelve. The standard French national curriculum⁴ is taught for three quarters of the week. The last quarter is devoted to the language and literature components of the British national curriculum. As in other schools with international sections (see 2.4), strict

⁴ French staff teach all elementary school disciplines: French, mathematics, history and geography, science, music, art, sport and ICT.

language boundaries are observed, with English teachers (trained in English-speaking countries) using only English with pupils, and French teachers using only French. Informal conversations between the first author and teachers in the English and French sections revealed a shared belief that it was essential to allocate separate spaces for each language in the curriculum. Teachers believed that sustained use of the target language of instruction for complex language processing and production was more beneficial for development in that language than using the other language as a facilitator (cf. Ballinger et al., 2017). While the simultaneous use of more than one language in the target language classroom was discouraged, varied scaffolding techniques were employed by teachers to facilitate understanding without resorting to the other language⁵.

To enter the English section, children require at least near-native English proficiency, which they must maintain to remain in the school. Neither English as a foreign language nor English enrichment programmes are offered. Non-Francophone children arriving from abroad take French as a second language classes for several hours a week for around two years. Thereafter, they fully integrate the mainstream French class composed of children from the other language sections.

Whole-class parent meetings led by the English and French teachers were organised at the beginning of the school year. Parents were expected to attend both meetings. The issue of reading was raised in both. The English teachers gave parents precise information about how teachers read books to children, as well as strategies used to foster interaction around books and ideas to enrich vocabulary. Parents were encouraged to share reading activities with their children using the Bug Club website⁶. They were also given lists of suggested books to read with their children. While reading, parents were urged to draw children's attention to the different parts of the book, talk about the words they were reading, check for understanding, provide comprehensible definitions of new words and provide synonyms. Parents were also instructed to use different voices to stimulate children's imagination, add drama to the story, and help children distinguish the characters. Parents were invited to ask questions while reading, prompting children to anticipate and make predictions, make inferences, and discuss characters' feelings. The goal was to create a home where children saw reading as an engaging and entertaining act that they could participate in daily with their parents. The French teachers also promoted reading, albeit differently. Parents were advised to read with their children often, but no specific guidelines were given on how to read with children, such as how to encourage reading, or the types of books appropriate for this age group.

Following the meetings, a written document was sent home to parents reiterating the reading guidelines. In addition, individual parent-teacher meetings during the first term allowed teachers to repeat and clarify instructions to ensure that all parents had the information covered in the whole-class meetings.

⁵ It is beyond the scope of this article to discuss these strategies further.

⁶

<https://www.pearsonglobalschools.com/index.cfm?locator=PS1n64&PMDbSiteId=4941&PMDbSolutionId=35262&PMDbSubSolutionId=&PMDbCategoryId=35270&PMDbSubCategoryId=35271&PMDbSubjectAreaId=&PMDbProgramId=98801&acornRdt=1&acornRef=http%3A%2F%2Fwww%2Epearsonglobalschools%2Ecom%3A80%2FBugclub%2Findex%2Ecfm>

3.2 Participants

We used purposeful sampling (Patton, 2002) to create three case studies (Stake, 1994) in order to better explore the three types of home language contexts typically found in this setting. The three students in the current paper were French-English emergent bilingual first graders, aged six at the start of data collection. Based on parents' responses to questions in the parent questionnaire pertaining to home language backgrounds (see 3.3.1), the participants were randomly selected from a larger pool of participant students with similar home characteristics. (The researchers are aware, however, that individual differences exist between young bilinguals from similar family backgrounds.) Since they had been admitted very recently to the school based on an English oral interview, they were deemed to have native or near-native age-appropriate English skills. The three families intended to remain in France for the foreseeable future.

The participants came from one of three home language backgrounds: Ava had two native English-speaking parents and had lived in France since birth; Laurène had two native French-speaking parents and had lived in France until moving to the USA for two years just prior to the study; Sarah had a native English-speaking mother and a native French-speaking father and had always lived in France. Questionnaires completed by parents showed that students came from high SES homes as measured by their parental education. All three sets of parents had completed at least undergraduate studies. The three participants came from two-parent homes and had normal general and language development as reported by parents.

3.3 Data Collection Procedures

Parents gave written consent for their child's participation. All data collection sessions were recorded using a high-performance digital audio recorder. Testing began two months after the start of first grade. Children were tested individually in a quiet classroom during school lunch hour by the first author, who is a native English speaker and a near-native French speaker. Testing in French and English was conducted in separate sessions, lasting around 15 minutes per session (see Appendix A for order of testing⁷). At least three weeks separated the narrative sessions, to reduce the risk of children remembering in detail the content of their first narration. Students were randomly assigned to one of the testing orders⁸. Sarah began with the English narrative, while Ava and Laurène started with the French narrative.

The data analysed were drawn from the oral narratives (*Frog, where are you?* Mayer, 1969) (see 3.3.2), with supportive background information provided by parent questionnaires and child semi-structured interviews (see 3.3.1). In addition, to gain a deeper understanding of home-school connections between parents and the IS French and English sections, data collected from individual unstructured interviews with certain parents were used (see 3.3.1). These were not recorded. However, the first author took fieldnotes during the exchanges, which were elaborated upon following the interview.

⁷ For the current paper, only data from the child interviews and narrations are reported.

⁸ Analyses of the full sample in the larger study revealed no significant order of testing group differences for any variables in either language. However, the impact of narration order cannot be excluded completely in a sample of three children.

3.3.1 Language exposure, home literacy and language attitudes

The parent questionnaire included quantitative information on children’s language exposure, family language practices, and linguistic environments from birth to present (see Appendix B). Parents also self-evaluated their oral skills in French and English on a seven-point scale (1. No knowledge; 2. Poor; 3. Fair; 4. Functional; 5. Good; 6. Very good; 7. Native-like).

Current exposure was calculated based upon estimates of the total number of waking hours per week that their child was in contact with each language, first during school calendar time (including weekends), and secondly during school holidays. Totals were then converted to percentages in order to facilitate comparisons between participants’ readings⁹.

Cumulative exposure to each language was estimated using information about the languages used in different contexts by their child (with each close family member, with the child-minder, at day care and preschool), on a yearly basis from birth. An estimate of the percentage of exposure to each language was first calculated for each year of the child’s life. This was then converted to a ratio. For example, if a child was estimated to have had 70% English exposure and 30% French exposure in year 1, the readings would be 0.7 and 0.3, respectively (calculation method adapted from Unsworth, 2013). Summing up yearly readings for a six-year-old child, if yearly exposure to each language remained unchanged, we would arrive at a cumulative amount of exposure of 4.2 years for English and 1.8 years for French. While this estimation relies on parents’ subjective representations of their child’s language exposure, earlier research has shown that parents’ estimations may correspond well to reality (Paradis, Emmerzael & Duncan, 2010).

Table 1 presents an overview of participants and language exposure data from parent questionnaires.

Table 1 Overview of participants and language exposure data

	Ava	Laurène	Sarah
Child’s place of birth	Born in France	Born in France	Born in France
Parents’ first languages	Native English-speaking parents	Native French-speaking parents	Native English-speaking mother; native French-speaking father
Day care, preschool up to arrival at IS	French day care French-medium preschool for 3 years	French-medium preschool for 1 year in France (aged 3-4) Family lived in USA (aged 4-6) English preschool for 2 years	Cared for by mother in France French-medium preschool for 3 years
Home language(s)	English	Predominantly French	English and French
Siblings	1 older	1 older; 1 younger	3 older

⁹ See Cohen and Mazur-Palandre, 2018, for full details of how current exposure was calculated.

Parents' self-reported L2 skills	Mother French: very good	Mother English: good	Mother French: very good
	Father French: native-like	Father English: intermediate	Father English: native-like
Current exposure	English: 71% French: 29%	English: 8% French: 92%	English: 67% French: 33%
Cumulative exposure from birth	English: 4.5 years French: 1.5 years	English: 1.1 years French: 4.9 years	English: 4 years French: 2 years

The parent questionnaire, a series of quantitative questions which provided a glimpse into the home language environment, also included information on *home literacy practices*; how often parents read books (or other reading material) to their child and in which language(s). Home literacy practices were deemed to be a significant source of input because of the rich language exposure they provided for language development (cf. 2.1). This is particularly important as our three participants had different language exposure histories, both within the home and at school. While all three were exposed to literacy instruction in both languages at the IS, we recall that they had been at the school for under two months when testing began. Since Ava and Sarah had attended French-medium preschool, contact with English literacy was at home only. Laurène had attended English-medium preschool while living abroad, so French literacy was restricted to the home environment.

Parents were asked to select the average reading frequency in each language on a seven-point scale (Never; A few times a year; 1-2 times a month; 1-2 times a week; 4-5 times a week; Usually daily). Students in French schools start learning to read in first grade so our interest in the current paper is primarily parents' reading frequency to children.

Unstructured interviews with certain parents as part of the larger project more broadly not only enabled us to delve deeper into certain topics covered in the parent questionnaires, but also to address other literacy-related issues. These included what guidance or advice teachers gave to parents around questions related to book reading – such as the types of books to read, how to develop effective (shared-) reading strategies, and how to encourage interaction around books.

The child semi-structured interviews provided information on the language(s) students used with their parents and siblings, friends in school during recess, and when watching television and reading. Questions also enquired about students' perceived competence and their preferences in each language with regard to speaking and reading (see Appendix C). The interviews were transcribed orthographically by the first author. These interviews were intended to provide additional information on how children experience bilingualism with their families. The interviews were individually coded by the first author for how students viewed their languages and their practices around their languages.

The parent and child interview data were analysed using a grounded theory approach (Glaser & Strauss, 1967). The findings from the questionnaires and interviews, along with the narrative analyses (see 3.3.2), were later used to create cases of each student. Through a descriptive case method design (Yin, 2014), we were able to create a detailed understanding of how different language exposures reflected students' literacy experiences. The interviews assisted in developing a holistic narrative which details the participants' language and literacy landscapes.

3.3.2 Analysis of oral narrative skills

The 24-page picture book *Frog, where are you?* (Mayer, 1969) was used to elicit spontaneous oral narratives in French and English. The book tells the story of a boy and his dog, and their search for their missing pet frog. This book was chosen because it had no text and thus offered a rich context for an original and creative oral narrative (see 2.3). It has been widely used in research on narrative development both in typically developing monolingual (Berman & Slobin, 1994) and bilingual children (Akinci & Jisa, 2001; El Abed Gravouil & David, 2016; Montanari, 2004; Pearson, 2002). Replicating Berman and Slobin's (1994) instructions, participants were given the following introduction: *This is the story about a boy, a dog and a frog. First you're going to look through the pictures. Then you're going to tell me the story as you look through the pictures again.* The same instructions were given in French for the French session. In both sessions, children were given time to look through the book to familiarise themselves with the plot. They were then asked to narrate the story, while holding the book and turning the pages. The researcher was seated at some distance from each child, so as to create a naïve story-telling context. Vocabulary assistance was not provided. Three types of analysis were performed on the data: microstructure, macrostructure and narrative quality.

Microstructure analysis

The narrative samples were transcribed and coded in the CLAN software in CHAT format (MacWhinney, 2000) by a trained near-native French and English researcher. In this article, we focus on lexical richness and morphosyntactic accuracy.

Lexical richness: Malvern's D (henceforth *D*) (Malvern et al., 2004) was chosen, since it has been shown to provide a robust measure to assess lexical diversity, independent of sample size. *D* corresponds to the single parameter of a mathematical function which models the falling curve of the type-token ratio (for more information see Richards & Malvern, 2000). *D* compares lexical diversity across children's narratives regardless of length. It has been argued that because *D* is based on lexemes in each language, it produces a comparable measure of lexical diversity in each language (Miller et al., 2006). *D* was calculated by adding a morphosyntactic coding tier to CLAN transcripts using the MOR and POST commands.

Morphosyntactic accuracy: Morphosyntactic errors were coded according to error type (e.g., determinants, pronouns, agreement, conjugation). The total number of errors was counted and a ratio was calculated by dividing the sum by the total number of words in the child's story.

We also include the total number of words in each narration (excluding false starts, repetitions and reformulations). The subsequent narrative analyses account for differences in story length. All CLAN transcriptions were checked by the first author and another trained researcher until 100% agreement was reached.

Macrostructure analysis

Macrostructure elements were coded having adapted a coding grid designed by Squires et al. (2014) for another Frog story book, *One frog too many* (Mayer, 1975). The macrostructure coding grid used in the current paper (Appendix D) was created by the authors using similar sub-components to those of Squires et al. (2014). Firstly, through an inductive approach, the first two authors examined in detail the *Frog, where are you?* (Mayer, 1969) images and added the relevant elements to each sub-component of the grid. Two trained bilingual research assistants employed a

grounded theory approach (Glaser & Strauss, 1967) to add further elements to the grid by reading through the English and French transcriptions of all participants from year one of the larger project (Cohen, 2015). This finalised grid was used to analyse the narratives in the current study.

Nine elements were coded for macrostructure: characters (human or animal agents performing actions); initial situation (the context when the story opens); settings (different places); initiating events (events motivating characters to act); general plot (actions related to initiating events); consequences (attempts to solve the initial event that started the story); resolution (successful resolution of the initial problem); internal responses (characters' feelings expressed throughout the story); inferences (using world knowledge to infer what was not explicit in the images). Each element included in the story was checked off on the macrostructure grid. Our interest was in the total number of items included in each sub-component and in each language, and in the total score for each language. Data were coded individually by the two bilingual research assistants using the macrostructure grid. Coding disagreements were re-examined until 100% agreement was reached.

Narrative quality analysis

The final coding tool, created by the first two authors, took a more global view of the narrations with regard to narrative quality (Appendix E) assessed in three main categories: Sequence of events; Precise/accurate language use; Literary devices. Sequence of events took a global view of the story to assess overall coherence. Precise accurate language was subdivided into two subsections: *precise referencing* to assess to what extent character referencing was clear through the use of precise pronouns and appropriate articles for first and subsequent mentions; *tense consistency* to assess to what extent the story was consistently narrated in the present or past tenses. Literary devices were subdivided into three subsections: *Story opening and closure* to assess whether stories had a formal opening, such as "Once upon a time", and a clear closure, such as "They all lived happily ever after"; *Direct speech* to explore to what extent direct speech was woven into the story; and finally *Storytelling style* which assessed general narrative style: to what extent children used dramatic voice in their stories (e.g., dramatic effect created by volume or pace modulation, use of pauses, rhetorical questions, onomatopoeia, etc.). Each item on the grid had a scale of descriptors which were checked off. A total score per language was then calculated. Data were coded individually by the first two authors of this paper. Coding disagreements were re-examined until 100% agreement was reached.

3.3.3 Establishing Trustworthiness

By collecting data from a variety of sources, we explored how language exposure and home literacy might contribute to narrative development. We triangulated the results (Denzin, 1978) from the various data sources presented above in order to inform our understanding of young emergent bilinguals' language development and narrative skills providing the framework for our three cases (Yin, 2014). We interpreted and were reflective in our role as researchers so as to uniquely represent each case (Stake, 1995) since "the utility of case research to practitioners and policymakers is in its extension of experience" (Stake, 1994, p. 245).

The patterns described in this paper are valuable, in part because they provide a better understanding of narrative development of young bilinguals by way of these three cases. The close examination of cases allows for more in depth investigation, which provides the contextual richness and depth needed to identify the factors at play that may inform subsequent investigations.

4. Findings: Case Studies

We explore how language exposure and home literacy environments might shape Ava, Laurène and Sarah's French and English oral narratives, illustrating our observations with extracts from their language productions. Full details of the children's results can be found in Appendix F.

Ava

Ava's home language was English. At the IS, she had more English- than French-speaking friends. She had play dates with English children at home once or twice a week, while play dates with French children occurred once or twice a month. Ava watched more English than French television¹⁰. She claimed to have no preference with regards to speaking French and English, nor did she find one language more difficult to speak than the other. Her parents considered English to be her dominant language. They read to her daily in English, and a few times a year in French. Despite being highly proficient French speakers, they reported that reading children's books in French "*felt unnatural*" to them as they were socialised into reading in English. Both parents were employed outside the home, and used both languages at work. The family visited English-speaking countries three to four weeks a year, and also received English-speaking visitors for similar periods of time.

Focusing on the analysis of Ava's narratives, for microstructure we observe that her English narrative was much longer (English: 225 words; French 150 words) and her English vocabulary was richer, as shown by the D readings (English: 42.4; French: 25.1). For example, in her English narration, the description of the search for the frog in the house was quite precise: "*They looked everywhere, and everywhere. In the boots, no. Oh no. And the dog looked out the window, but he fell.*" The English description included one specific place where they searched (the boots), and the listener understands that the dog ended up outside the house, having fallen through the window. In French, the description was vague and the vocabulary less precise: "*Alors après il regardait tout tout. Non, pas là. Et après le chien tombait.*" (So after, he was looking at everything, everything, everything. No, not there. And after the dog was falling). No precise search locations were provided, nor is it clear that the dog was outside having fallen after looking out of the window, essential information to understand the next stage of the search. Similarly, in English, Ava used precise vocabulary to describe what happened between the initial encounter with the deer and the moment the boy was dropped into the river: "*And by accident the boy went onto a deer. And so the deer went ugh now let me bring him to the river. So he went to the river. He threw them down. It wasn't a deep river. And so then splash they went into the river*". In French, the detail of these events was minimal and the vocabulary much more general: "*Mais après il s'est fait tomber quelque part. Il s'est fait tomber dans de l'eau.*" (But afterwards he got dropped somewhere. He got dropped in some water.) In the French version, the deer was not mentioned, nor was there any reference to the accidental nature of the encounter, nor the type or depth of water. Thus the listener is able to better visualise events in the English story through Ava's use of richer and more specific vocabulary.

With regard to morphosyntactic errors, there was just one in English, a direct object omission after the verb ("*The dog ran away with the bees catching*" (him)). Ava showed her control of English morphosyntax through the correct formation and use of tenses throughout her narration (present and past simple and continuous), including irregular verb forms (e.g., *fell, ran, threw,*

¹⁰ Television includes viewing practices on the Internet and video on demand.

heard). In French, there were 11 morphosyntactic errors, mainly of gender (e.g., *le grenouille* (la grenouille)); conjugation: *il allait sorti* (allait sortir); and tense: *le chien tombait* (est tombé)), which were repeated quite systematically throughout the narration. Errors on determinants and verbal forms are typical of L2 French learners (Porquier, 1977).

Turning to the macrostructure analysis, Ava scored much higher overall for English (English 38; French 22). Indeed, her English story was richer in that it had more characters (in French there was no mention of the mole, bees, owl and deer). It included more details on initial situation (in French the time of day at the story outset was omitted), general plot (in French there was no mention of searching in a hole for the frog), consequences (only one in French – the dog fell in the water, compared to five in English, e.g., the dog fell out of the window; the bees chased the dog), internal responses (four references to character emotions in English, e.g., the boy was sad when the frog escaped; the dog was scared when the nest fell) compared to one in French – it was fun in the water), and inferences (six in English – e.g., the boy accidentally fell on the deer; the boy thought he heard frogs; the boy asked if he could take a frog; three in French – e.g., the boy decided to look for the frog). In contrast, scores across languages were identical for story settings (only the pond/water was referenced), and initiating events and resolution (complete in both). So, in French, insufficient elaborations were given on events and scenes and certain events were omitted. Ava skipped over events using “*tout, tout, tout*” (everything, everything, everything) and “*un autre, et un autre, et un autre*” (another and another and another), suggesting she may not have been as comfortable with providing precise details. As a result, the listener was not drawn into the story in the same way as with the English version.

The narrative quality of Ava’s English story was richer overall (English: 19; French: 14). Her performance across languages was similar, and of a good overall level, for sequence of events, precise referencing and tense consistency. Her French story had a clearer closure (“*au revoir*”). On closer examination, it is apparent that there were two places where there were distinct differences in the narration: use of direct speech, and a broader storytelling style. In order to provide a rich narration, Ava incorporated her world knowledge into the text fabric. Her skilful use of personification and direct speech enabled her to give voice to the characters, (English: “*Ouch*” said the dog; “*Ah phew*”, said the dog in dog language). These skills were used repeatedly in English but used only once in French when she inserted “*au revoir*” to close her story.

In English, she inserted a rhetorical question to engage the listener (“*Oh no, where is the frog?*”) and she also made animal sounds and used onomatopoeia to bring the characters to life (frog croaking). Thus in English, Ava gave voice to characters and their feelings through her words utilising voice modulation (rising and falling; changes of pace; dramatic pauses). Her fluency and lively rendition in English sounded like someone telling a story, held the listener’s attention and enabled the listener to effortlessly get a sense of story without having to look at the pictures. While in contrast, although she told a coherent story in French she did not personify animals through voices, sounds and emotions in the same way. Her French was comprehensible and fluent although not as natural as her English.

In sum, while Ava had a good sense of story in both languages she used more literary devices and provided a more detailed English rendition. She performed better overall in English, providing additional details that made it easier for the listener to appreciate and visualise certain events and why they occurred (e.g., “[he] *didn't like that place*”; “*It wasn't a deep river*”).

Ava’s home language practices with her parents and sister were clearly English dominant. She reproduced this English model in her choice of English-speaking friends in school. English reading practices corresponded to teachers’ explicit directions about daily reading whereas French

reading practices did not align with French teachers' more general instructions¹¹. Thus, the key agents – parents, sister, Ava herself and English teachers – attributed greater value to English than to French. If a similar model continues, we might hypothesise that the gap between Ava's languages will persist, despite her living in a French majority environment, attending a school where French is essential for academic success. Increasing the proportion of French exposure relative to English (including to literacy related activities) should enable Ava to enhance her performance in French.

Laurène

In contrast to both Ava and Sarah, French was Laurène's main home language. French had always been the only communication language between Laurène and her father. At the time of the study, Laurène reported that she and her older brother very occasionally used English "*to say secret things*". Laurène's mother, on the other hand, started using English and French equally to her daughter once the family moved to the USA, although Laurène never responded in English. On returning to France, Laurène's mother continued using some English to her daughter although French was more frequent. At the IS, Laurène played only in French during recess. She watched more English television at home. Her parents read to her in French once or twice a week but never in English. She did, however, read to herself daily in French and four to five times a week in English (having learned to read in the USA). She observed, "*I have most of the time books in French*". French-speaking playmates visited once or twice a month, but Laurène's family rarely received English-speaking visitors or visited an English-speaking country. While her parents considered their daughter to be French dominant, Laurène claimed to find it just as easy to speak and read both languages and she enjoyed speaking and reading both, although she observed "*there are just some words I don't know how to say in English*".

Focusing on her narrations in regard to microstructure, we observe that her stories were nearly identical in length (English: 234 words; French 233 words). French vocabulary was richer (English D: 31; French D: 48.6). Indeed, her vocabulary was at times more precise in French and included low frequency words, using "*ruche*" (hive), and "*nid d'abeilles*" (bees' nest), when in English she simply said, "*They see some bees going out*". She did, however, show good knowledge of animal names in both languages and the main characters were mentioned in both versions. She made ten English morphosyntactic errors, particularly errors of conjugation (e.g., "*the frog is escaped*"; "*they've arrive at*") and prepositions ("*The dog and the boy are looking the frog*"; "*The morning, they look at the pot*"), the English constructions often appearing to be modelled on French. There was only one morphosyntactic error in French ("*il croive*" (il croit)).

In the area of macrostructure, Laurène's two narrations were rather even overall (English: 30; French: 31), and four skills narrowly favoured her French narration. When describing the initial situation, in French she noted the time of night and the fact that the boy kept the frog in a jar. In the English narration, she only referenced the boy and the dog looking at the pet frog. Where in French, Laurène mentioned that the story took place outside as well as in the lake, in English she only mentioned the lake. Regarding consequences tied to actions in the story, Laurène described four resulting actions in French (the dog falling out of the window; the bees chasing the dog; the owl flying after the boy; the deer dropping the boy off the cliff), and three in English (the mole coming out of the hole; the bees coming out of their nest; the boy and the dog falling in the water). There was no overlap across the actions described in the two narrations.

¹¹ Parents were not asked whether their reading habits with their children were influenced by teachers' instructions.

She also made more inferences in French (3 in French; 1 in English). For example, “*le garçon tombe par terre avec ses bottes qui sont trop grandes*” (the boy falls on the ground with his boots which are too big). Her English narration had more detail for three macrostructure skills. When describing the general plot, Laurène identified nine details in the English story compared to seven in French. And while the initial story events overlapped, she gave prominence to different events in each language (e.g., in English, the boy looked for the frog in a hole in the ground and behind a hollow log; in French, the boy looked for the frog in a hole in the tree). Laurène slightly favoured English for resolutions to the problem. She observed in both that the boy and the dog found baby frogs, and added that the same characters said goodbye. She provided one internal response for the boy in English, noting he was angry, while none were provided in French. Beyond the slight differences mentioned above, Laurène’s narrations were identical for characters and initiating events, with all elements for these two components referenced in both narrations.

Laurène’s narrative quality was slightly richer overall in English (English: 17.5; French: 14). We found areas with very little to no difference (sequence of events, precise referencing, tense consistency, and story opening and closing). In both versions, Laurène began her stories in the past tense, but then switched to consistent present tense use to the end of the story. Referencing was precise and accurate in both narrations. In other areas there were noticeable differences that favoured English. She, for example, used direct speech in English (e.g. “*Frog, where are you?*”) whereas she used none in French. Her story telling style in English was quite theatrical, and she used her voice to create dramatic effect, emphasising certain words, for example “*and they are screaming AGAIN*”, and used onomatopoeic words like “*splash*” to retain the listener’s attention. The dramatic effect brought to the English narration was, however, absent in French. On the other hand, she narrated her French story very fluently, whereas the English version was at times quite disfluent with numerous aborted sentences. Such sentences included: “*They look in the tree: the owl scares them by...*”, which at times led to reformulations, breaking up the rhythm of the narration. There were hesitations and repetitions in both languages, but less so in French.

In sum, in most areas of analysis, Laurène’s two versions were rather similar. What particularly stood out with her English performance were the frequent morphosyntactic errors and several instances of disfluent speech-

Whereas Ava might benefit from further French exposure, Laurène may benefit from additional exposure to English. Unlike Ava and Sarah, Laurène was already an independent reader and chose to read frequently in both languages, in accordance with teachers’ guidelines. However, she would probably have encountered more low frequency words and more varied syntax in books read to her by her parents, since parents tend to read more complex books than children when unaided. In Laurène’s case, different family members were actively negotiating their language practices and creating space for English. Thus, compared to Ava, although overall, greater attention was paid to French by key agents (Laurène herself, her parents and brother), value was also attributed to English by certain family members, including Laurène. Pursuing and developing purposeful and meaningful language practice in English should help Laurène improve her English, although increasing English exposure when living in a French majority environment may be challenging.

Sarah

Language practices amongst Sarah’s family members had evolved over the years. Sarah’s mother only ever used English, while her father used only English for the first two years, and had since spoken to Sarah in English and French with English being more prevalent. Sarah’s mother

remarked that she regularly encouraged her husband not to speak French with his daughter, as she felt that Sarah was increasingly speaking French with family. Indeed, Sarah used only English with her mother and father until she was four, and then more French for the following two years. She then spoke both English and French equally to them. With her three older siblings, she used English only for the first three years, then English and French equally for around a year, after which French became their more frequent language of communication. At the IS, Sarah spoke English and French equally with playmates.

Sarah was read to in English daily and her mother reported that she liked to use different voices when telling stories to her daughter. Reading in French was once or twice monthly. Sarah was quite aware of this fact, and observed that she spent more time reading English *“because my mum gets me lots of books in English and not so much in French.”* On the other hand, Sarah had access only to French television at home. She played with English- and French-speaking friends once or twice a month. The family received English-speaking visitors for around two weeks annually and, similar to Ava, visited English-speaking countries for three to four weeks a year. Regarding language dominance, Sarah’s mother noted that *“French is only very slightly stronger than her English in terms of more natural colloquial /playground usage of French that is currently slightly lacking in English.”* Sarah herself, however, felt equally comfortable speaking either language and enjoyed both.

Turning to Sarah’s narration, the English version was longer than the French (English: 270 words; French: 226 words), and it was also lexically richer (English D: 34.5; French D: 24.7). For example, Sarah added details to her English story containing low frequency words *“and then there was bees gone into some pollen”*, as well as *“then someone pinches his nose”*. Such details were absent from the French story. On the other hand, Sarah named certain animals precisely in English (dog, frog, bees, owl) and in French (chien (dog), grenouille (frog), abeilles (bees), aigle (eagle), cerf (deer)), but had lexical gaps in both languages. In English, the mole was referred to as *“someone”*, while the deer was referenced as *“a animal”*. Similarly, in French the mole was *“un animal”* (an animal).

Sarah’s narrations contained a similar proportion of morphosyntactic errors, many of which were typical developmental errors. English errors concerned principally over-generalisation of regular verb forms for certain irregular verbs in the simple past. Some of these were systematic: *“they gone”*, *“the frog comed out”*, *“they waked up”*, *“they falled off”*; while other irregular verb forms had been mastered: *“he broke”*, *“the dog put”*, *“he got caught”*, *“they gave”*. Sarah made occasional French gender mistakes on *“grenouille”* – *“je suis pas un grenouille”*, although she usually chose the correct gender. She also systematically overused the unmarked verb *avoir* in the *passé composé* (past tense) when *être* was required: *“le chien a tombé”*, *“il a monté”*, *“il a allé”*. She attempted to use the past historic once in her story although her creation was incorrect, *“un aigle sorta”*.

For macrostructure, Sarah’s overall performance was similar in her two languages (English: 34; French: 31). There were some instances where her performance was identical across the two narrations. These instances included characters, initiating events, resolution and inferencing. She included all the initiating events. She resolved the stories with slightly different information but both were complete. Two inferences overlapped across the two languages (they boy thought he heard frog noises; the boy asked if he could take a baby frog) while four were different (e.g., in English, the dog was annoying the bees; in French, the boy woke up the mole’s babies).

Conversely, some macrostructure elements had slight differences. The initial bedroom setting was the only location mentioned in French while none were present in English. Few consequences were referred to in either story (in English, the bees chased the dog; in French, the

dog broke the jar and made the bees' nest fall). Wider differences could be seen across initial situation, plot and internal response. Greater details were given in English for the initial situation ("*The boy had a frog in a bowl*"; "*The dog is looking at the frog*"). Although both versions provided rich detail for general plot, the French narration was richer (English: 7; French: 9). No internal responses were incorporated in French, while three were present in English relating to different characters' feelings of anger or unhappiness.

As regards narrative quality, Sarah's performances were very balanced (English: 19.5; French: 20.5). She was identical across both narrations, with only one exception – story opening and closure: the French included both, whereas the English only had an opening. She had high scores in both languages demonstrating a good command of storytelling. Her event sequencing was easy to follow, and her referencing and past tense consistency were very coherent. Her command of literary devices in both languages characterised her stories. She successfully integrated a range of voices and animal sounds. Furthermore, the quality and flow left the listener with the impression that she was accustomed to hearing stories. While both stories were narrated in a lively manner, the English story was more animated, achieved by more effective voice modulation.

Overall then, Sarah's performance in the different analysis categories was quite similar, although there were minor variations across languages. In comparison to Ava, who used a great deal of literary devices in her English rendition, Sarah's performances were again balanced. And again, in comparison to Laurène's series of errors and general lack of fluency in English, Sarah appeared competent in both languages. Although she made some developmental linguistic errors, both stories were easy to follow, flowed well, were lively and demonstrated a strong sense of storytelling.

Sarah's balanced language skills mirrored the values ascribed to each language by the key agents (parents and teachers, for example). She and her siblings also showed themselves to be active agents by shifting from English- to French-dominant interactions amongst themselves. Sarah's parents' language practices were more mixed although they remained English-dominant, thanks to her mother's efforts. Sarah, however, was negotiating these family dynamics by trying to socialise her father into speaking more French with her, mirroring her practices with her sisters. Sarah's home and school friendship groups reflected her dual language family background. Teachers' reading instructions were followed strictly for English but less so for French.

5. Discussion and conclusion

While quantitative studies "iron out any individual idiosyncrasies" (Dörnyei, 2007, p. 29), adopting a qualitative approach has enabled us to focus on "unique meaning carried by individual organisms" (Dörnyei, 2007, p. 29). By analysing the narratives from three different perspectives, we have shown that language proficiency which relates to language exposure may shape not only microstructure, but also macrostructure and narrative quality, even when children have been exposed to an L2 since birth (Ava). If vocabulary is uneven across languages, children may (unconsciously) engage less in the narrative in one language, even if the resulting story is coherent, and they feel confident speaking the language and are fluent speakers.

Our data add further support to previous research findings that have indicated a strong association between amount of exposure and narrative microstructure skills (Bedore et al., 2010; Cohen & Mazur-Palandre, 2018; Pearson, 2002; Rodina, 2017; Rojas & Iglesias, 2013). Furthermore, children used more low frequency vocabulary in the language in which they were read to more often (cf. findings on young monolinguals: DeTemple, 2001; Mol, Bus & de Jong, 2009; Sénéchal, 2006; Sénéchal et al., 2008; Weizman & Snow, 2001).

While previous literature has suggested that macrostructure skills are similar in the bilinguals' languages since they rely on a common underlying proficiency (Altman et al., 2016; Hipfner-Boucher et al., 2015; Iluz-Cohen & Walters, 2012; Rodina, 2017; Uccelli & Paéz, 2007), our in-depth study has enabled us to refine this finding. By breaking down macrostructure into several sub-components, we have revealed that while there is some degree of transfer between languages, it is not always the case. Within *Initiating events*, the three children performed identically across their languages and they included all elements. The different pieces of information were essential for understanding the ensuing search. In addition, the initiating events could be recounted using high frequency vocabulary, rendering the inclusion of details quite straightforward. Although not identical, the details provided in *Initial situation*, *Settings* and *Resolution* were also quite similar across languages. For *Initial situation*, all children referred to the fact that the frog was in some sort of container. For *Settings* few elements were provided, regardless of children's language dominance. For *Resolution*, all three mentioned the most important story element, that the boy and dog found the frog or a family of frogs, while other details varied across participants and languages. Thus, for these sub-categories, children's performance was similar across languages and the key story elements were included.

Our deep analysis has enabled us to uncover more subtle differences in performance across languages in the remaining sub-categories – *Characters*, *General plot*, *Consequences*, *Internal responses* and *Inferences*. For Laurène and Sarah, when there were differences between French and English, they were generally small, sometimes favouring one language, sometimes the other, a finding consistent with previous literature. In contrast, Ava's more idiosyncratic performance, with consistent differences favouring English, runs counter to previous findings. While she included the story protagonists, unlike Laurène and Sarah, Ava made no reference to the secondary characters. She subsequently omitted the corresponding plot details and consequences of episodes relating to these characters, but also any internal responses or inferences relating to these episodes. These four sub-categories are therefore highly interconnected and dependent on one another. Despite these omissions, Ava's French story had an explicitly motivated beginning, a middle, and a final resolution, yet the middle was somewhat truncated, with numerous absent episodes. We believe that Ava's more limited French lexical resources prevented her from constructing a more detailed and precise French narrative. It is not a cognitive issue since her English narrative was complete and very satisfactory. This result supports Montanari's (2004) qualitative study which indicated that narrative competence could be hindered by still developing linguistic resources.

In the final category of analysis, narrative quality, the three students' performances were similar across their languages, with two notable exceptions. Ava and Laurène interwove more direct speech and provided more animated renditions in their English stories.

Our findings suggest that a simple transfer model of what is known in one language to the other may be insufficient. We are not questioning whether or not some skills and understandings transfer, but rather the way students use information. Additionally, our findings suggest two areas where parents and teachers could support language development: agency and literacy pedagogy.

Through our analyses, we have seen that students' bilingualism is shaped by certain key agents: parents and siblings (the (explicit) family language practices implemented in the home – language(s) used between family members, including language(s) for home literacy practices; television; trips abroad; visits from Anglophone speakers), the children themselves (how they negotiate language practices with family members; friends they socialise with at home and in school; books they choose to read), and the school and its social actors (media of instruction; teachers' belief systems communicated through discourses addressed to parents and students).

Thus, these actors' agency steers dual language acquisition and contributes to language learning trajectories and outcomes.

As the children progress through school, they will increasingly exercise their own agency, although the influence of key adult agents, siblings and friends cannot be underestimated. The question of attitudes and preference toward a language also matters, whether on the part of the children or parents. Ava seemed to prefer English even though she had always lived in a predominantly French context. Laurène's parents resisted reading in English, while Ava's resisted reading in French. Socialising children into reading through one language over another may influence the language(s) children choose to read in and therefore develop vocabulary once they become independent readers. Since the IS requires pupils to be bi-literate, it is important for teachers to foster the desire to read in both languages of schooling to ensure academic success.

Reading for pleasure was clearly actively encouraged by the English teachers and data from semi-structured child interviews and interviews with parents from the larger project (Cohen, 2015) demonstrated the effectiveness of this approach. On the other hand, lack of precise guidance on reading from French teachers led many children to find reading in French to be less interesting. Clearly, it is important for parents and teachers to be aware of the power their agency exercises in influencing children's language choices and preferences. Teachers' belief systems shape not only the school curriculum, but also what happens to students outside school, including language trajectories, attitudes, learning outcomes and family language practices.

Literacy is no longer viewed as simply knowing how to read and write; but rather as contextual and multimodal (Kalantzis & Cope, 2012) with a complex set of interrelated skills and processes, which in this study include vocabulary development, oracy, and language choice. For teachers, this study reiterates the complexity of language learning in emergent bilinguals. At first glance, one might predict that participants' language exposure and home language would align with their proficiency in the dominant language. However, with a detailed analysis, we have highlighted how language learners can navigate language production with various microstructure, macrostructure and narrative quality skills. Moreover, students' personal language awareness and abilities are not equivalent to a classroom's language borders and policies. As teachers, we need to be aware of the cognitive act of language learning and need to use constant and diverse kinds of activities to ensure that emergent bilinguals are processing and producing accurately in both languages. As proficiency develops, bilinguals demonstrate a wider range of language skills and yet in most classrooms, students are severely limited in their opportunities to use language in a variety of ways.

It is important for educators to be aware that an under expressed narrative performance is not necessarily a sign of limited cognitive abilities but rather reveals the emerging nature of L2 language development. In dual language schools, teachers can consult one another to compare children's performance across their languages and then act accordingly to help enrich their languages. However, this is not the case in monolingual mainstream schools where bilingual children may be labelled deficient (Montanari, 2004) as teachers cannot access performance in both languages.

This study supports practical implications for the bilingual classroom especially the importance of explicit instruction for narrative structures, vocabulary development, and family literacy practices. The study reaffirms that teachers should continue to use holistic assessment practices to further understand their students' language development. Students need support in both languages for narrative skills especially character and plot development. For students whose home language is not the majority language, we recommend that teachers should focus on targeted vocabulary development through the design of multi-faceted classroom instruction to enable

students to increase their academic vocabulary. Lastly, our study shows that some parents do not feel comfortable reading aloud in a second language, so schools and teachers could utilise family literacy projects (Chang, 2004) to help parents model bilingual literacy practices coupled with maintaining the home language.

While France still maintains its monolingual policies and the IS has a firm divide between language sections, this study demonstrates that language policy, from a nation, school, or family, does not determine or equate how one cognitively develops and processes narrative skills. Moreover, it reveals a complexity of language and a need to diversify pedagogical approaches. Again, responsibility lies with teachers to navigate educational policies and the needs of their students. Without divergence, teachers can consider their own language ideologies and engage in crosslinguistic pedagogy (Ballinger et al., 2017). While it might also be beneficial to encourage more bilingual pedagogical practices in the classroom to enable students to make links between their languages and draw on resources from both, rather than keeping them separate (cf. García & Wei, 2014; Hélot, 2008; Palmer et al., 2014), in the French context, a subtler approach is required. Celic and Seltzer (2011) suggest that teachers consider translanguaging pedagogy as a variety of classroom strategies rather than one programmatic approach. For the participants in our study and for children especially similar to Ava, teachers could encourage students to work on various stages of a project in different languages and for schematic purpose brainstorm in any languages before an activity (Celic & Seltzer, 2011). Teachers could scaffold language objectives in content courses with a focus on communication and focus on the ideas of the student and provide strategies to help students to fully share their ideas in the target language (Ballinger et al., 2017).

This study has outlined a detailed approach for future studies to consider a holistic, in-depth study to better serve language educators and to better understand how language development shapes the nuances of oral narrative skills in emergent bilinguals. Moreover, to challenge the monoglossic ideologies and to perhaps promote translanguaging practice in France (Canagarajah, 2013), future studies, similar to this one, could study translanguaging in oral narratives.

Our study has shown that despite coming from different home language backgrounds, with unequal access to each language, all three students are young bilinguals in the making, even if on different paths. By considering all data from different perspectives, our analysis has allowed for a more nuanced and detailed assessment of dual language skills, showing how the students move in and out of their two languages. We believe that it is essential to conduct longitudinal studies to better comprehend the different paths students follow as they move through their educational trajectories on the road to becoming bilingual. It is also essential to explore the contribution of different types of input, to assess the influence of different agents in shaping language trajectories, learning outcomes and language attitudes.

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Appendices

Appendix A Order of testing

Session	English/French order	French/English order
1	<i>British Picture Vocabulary Scale (BPVS)</i>	<i>Échelle de vocabulaire en images Peabody (EVIP)</i>
2	Child semi-structured interview	Child semi-structured interview
3	<i>Échelle de vocabulaire en images Peabody</i>	<i>British Picture Vocabulary Scale</i>
4	<i>Frog, where are you?</i> French	<i>Frog, where are you?</i> English
5	<i>Frog, where are you?</i> English	<i>Frog, where are you?</i> French

Appendix B Extracts from Parent questionnaire

Part 1 - Family Background

Which of the following best describes your current main daily activities and/or responsibilities?

<i>Mother</i>		<i>Father</i>	
Working full time		Working full time	
Working part-time		Working part-time	
Keeping house/raising children full-time		Keeping house/raising children full-time	
Retired		Retired	
Other (please state)		Other (please state)	

<i>Occupation Mother</i>	
<i>Occupation Father</i>	

How long does your family intend to stay in France?

<i>1-2 years</i>	<i>3-5 years</i>	<i>6-9 years</i>	<i>10 or more years</i>	<i>Other (please state)</i>

Please list the ages of any other children in the family.

Please mark the highest level of education that you have completed.

	<i>Primary school</i>	<i>Middle school</i>	<i>High school (or equivalent)</i>	<i>College diploma</i>	<i>University Bachelor's degree</i>	<i>Postgraduate degree</i>	<i>Other (please state)</i>
<i>Mother</i>							
<i>Father</i>							

Please list all the languages you know in chronological order of acquisition from least recent to most recent.

<i>Mother</i>	1.	2.	3.	4.	5.
<i>Father</i>	1.	2.	3.	4.	5.

Please rate your current ability in English and French according to the following scale.

<i>No knowledge</i>	<i>Poor</i>	<i>Fair</i>	<i>Functional</i>	<i>Good</i>	<i>Very good</i>	<i>Native-like</i>
1	2	3	4	5	6	7

	<i>Speaking</i>	<i>Writing</i>	<i>Listening</i>	<i>Reading</i>
<i>Mother English</i>	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
<i>Mother French</i>	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
<i>Father English</i>	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
<i>Father French</i>	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7

Part 2 – Child’s language contact

Please complete the following tables by estimating the approximate number of hours of contact per day that your child has with each language.

Daily contact with languages DURING TERM-TIME

	<i>Hours in contact English in school</i>	<i>Hours in contact English outside school</i>	<i>Hours in contact French in school</i>	<i>Hours in contact French outside school</i>	<i>Hours in contact another language in school (Please state language)</i>	<i>Hours in contact another language outside school (Please state language)</i>	<i>TOTAL</i>
<i>Monday</i>							
<i>Tuesday</i>							
<i>Wednesday</i>							
<i>Thursday</i>							
<i>Friday</i>							
<i>Saturday</i>							
<i>Sunday</i>							
<i>TOTAL</i>							

Daily contact with languages DURING SCHOOL HOLIDAYS

	<i>Hours in contact English</i>	<i>Hours in contact French</i>	<i>Hours in contact another language (Please state language)</i>	<i>TOTAL</i>
<i>Monday</i>				
<i>Tuesday</i>				
<i>Wednesday</i>				
<i>Thursday</i>				
<i>Friday</i>				
<i>Saturday</i>				
<i>Sunday</i>				
<i>TOTAL</i>				

Please mark the frequency of the following:

	<i>Never</i>	<i>Less than once a year</i>	<i>1-2 times a year</i>	<i>3-4 times a year</i>	<i>5 or more times a year</i>
<i>My child visits an English-speaking country</i>					
<i>We receive English-speaking family/friends from abroad</i>					

Please mark the frequency of the following;

	<i>Never</i>	<i>A few times a year</i>	<i>1-2 times a month</i>	<i>1-2 times a week</i>	<i>4-5 times a week</i>	<i>Usually daily</i>
<i>Child reads alone in French</i>						
<i>Child reads alone in English</i>						
<i>Parent(s) read(s) with child in French</i>						
<i>Parent(s) read(s) with child in English</i>						
<i>French-speaking children come to play</i>						
<i>English-speaking children come to play</i>						

Part 3 – Child’s language use from birth to present

In which country(ies) did your child live in his/her:

<i>1st year</i>	
<i>2nd year</i>	
<i>3rd year</i>	
<i>4th year</i>	
<i>5th year</i>	
<i>6th year</i>	

Please mark the most appropriate answer in each case.

Languages used BY YOU TO YOUR CHILD - Mother

	<i>Always French</i>	<i>French more often than English</i>	<i>French and English equally</i>	<i>English more often than French</i>	<i>Always English</i>	<i>Other (please state)</i>
<i>1st year</i>						
<i>2nd year</i>						
<i>3rd year</i>						
<i>4th year</i>						

5th year						
6th year						

Languages used BY YOU TO YOUR CHILD - Father

	<i>Always French</i>	<i>French more often than English</i>	<i>French and English equally</i>	<i>English more often than French</i>	<i>Always English</i>	<i>Other (please state)</i>
1st year						
2nd year						
3rd year						
4th year						
5th year						
6th year						

Languages used BY YOUR CHILD TO YOU - Mother

	<i>Always French</i>	<i>French more often than English</i>	<i>French and English equally</i>	<i>English more often than French</i>	<i>Always English</i>	<i>Other (please state)</i>
2nd year						
3rd year						
4th year						
5th year						
6th year						

Languages used BY YOUR CHILD TO YOU - Father

	<i>Always French</i>	<i>French more often than English</i>	<i>French and English equally</i>	<i>English more often than French</i>	<i>Always English</i>	<i>Other (please state)</i>
2nd year						
3rd year						
4th year						
5th year						
6th year						

Languages used BETWEEN YOUR CHILD AND SIBLINGS (BROTHERS AND SISTERS).

	<i>Always French</i>	<i>French more often than English</i>	<i>French and English equally</i>	<i>English more often than French</i>	<i>Always English</i>	<i>Other (please state)</i>
1st year						
2nd year						
3rd year						
4th year						
5th year						
6th year						

What language(s) do you use with each other?

	<i>Always French</i>	<i>French more often than English</i>	<i>French and English equally</i>	<i>English more often than French</i>	<i>Always English</i>	<i>Other (please state)</i>
<i>Mother to father</i>						
<i>Father to mother</i>						

<i>Did your child regularly attend a crèche/day care centre?</i>	<i>Yes</i>	<i>No</i>
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If you answered 'Yes' to the above question, which language(s) was/were used to your child there?

<i>Has your child had regular child-minders/au pairs?</i>	<i>Yes</i>	<i>No</i>
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If you answered 'Yes' to the above question, please mark which language(s) they spoke to your child.

Which language(s) was/were used to your child at his/her nursery/kindergarten/école maternelle?

	<i>French</i>	<i>French and English</i>	<i>English</i>	<i>Other (please state)</i>
<i>1st year</i>				
<i>2nd year</i>				
<i>3rd year</i>				

<i>Do you feel that your child has a stronger language today?</i>	<i>Yes</i>	<i>No</i>
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If so, which language is it?

<i>French</i>	<i>English</i>	<i>Other (please state)</i>
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Appendix C Extracts from Child semi-structured interview questionnaire

In which language do YOU speak to the following?

	<i>Always French</i>	<i>French more often than English</i>	<i>French and English equally</i>	<i>English more often than French</i>	<i>Always English</i>	<i>Other (please state)</i>
Father						
Mother						
Brothers/Sisters						
Friends in the playground						

In which language do the following speak to YOU?

	<i>Always French</i>	<i>French more often than English</i>	<i>French and English equally</i>	<i>English more often than French</i>	<i>Always English</i>	<i>Other (please state)</i>
Father						
Mother						
Brothers/Sisters						
Friends in the playground						

Which language do you use to do the following?

	<i>Always French</i>	<i>French more often than English</i>	<i>French and English equally</i>	<i>English more often than French</i>	<i>Always English</i>	<i>Other (please state)</i>
Watching TV						
Reading						

Say which of the answers is true for you.

- I find it easier to speak English than French.
- I find it just as easy to speak French and English.
- I find it easier to speak French than English.
- I find it easier to speak another language which isn't French or English.
Please say which language if you answered **d**

- I prefer speaking English.
- I prefer speaking French.
- I have no preference. I like speaking in English and French.
- I prefer speaking another language which isn't French or English.
Please say which language if you answered **d**

- a. I find it easier to read in French than in English.
 - b. I find it just as easy to read in French than in English.
 - c. I find it easier to read in English than in French
 - d. I find it easier to read in another language which isn't French or English.
- Please say which language if you answered **d**

- a. I prefer reading in French.
 - b. I prefer reading in English.
 - c. I have no preference. I like reading in French and in English.
 - d. I prefer reading in another language which isn't English or French.
- Please say which language if you answered **d**

Appendix D Macrostructure coding grid *Frog, where are you?* (Mayer, 1969)

Language: FRENCH ENGLISH

COMPONENT		TOTAL
Characters	<input type="checkbox"/> Boy <input type="checkbox"/> Dog <input type="checkbox"/> Frog <input type="checkbox"/> Bees (flies? mosquitos? wasps?) <input type="checkbox"/> Mole / groundhog /gopher / a little animal (reference to animal by look or size) <input type="checkbox"/> Owl <input type="checkbox"/> Deer / Moose / Reindeer / an animal <input type="checkbox"/> Family of frogs	
Initial situation	<input type="checkbox"/> It's night time/bed time <input type="checkbox"/> Boy had/had caught a pet frog <input type="checkbox"/> He kept it in a jar <input type="checkbox"/> Boy and dog looking at pet frog in jar / boy and dog having fun with frog in jar	
Settings	<input type="checkbox"/> His room / bedroom / his house <input type="checkbox"/> Outside <input type="checkbox"/> Forest / wood / a prairie <input type="checkbox"/> Cliff / a drop / (a hole) (not mountain) <input type="checkbox"/> Pond / lake / water / pool	
Initiating events	<input type="checkbox"/> Boy goes to bed / falls asleep / it was bedtime <input type="checkbox"/> Frog escapes <input type="checkbox"/> Boy wakes up / gets up / the next morning <input type="checkbox"/> Boy finds empty jar or pot / frog not there anymore / frog not in it anymore / didn't find frog	
General plot	<input type="checkbox"/> Boy looked in room / boot / everywhere <input type="checkbox"/> Dog looked in jar <input type="checkbox"/> Boy looked out of the window / looked outside <input type="checkbox"/> Boy looked out of the window / outside <input type="checkbox"/> Boy called for frog / for help out of the window <input type="checkbox"/> Boy went outside <input type="checkbox"/> Boy picked up the dog <input type="checkbox"/> Boy called out for frog outside <input type="checkbox"/> Boy found / looked in / called for frog in hole in ground <input type="checkbox"/> Dog looked in or found bees' nest / hive <input type="checkbox"/> Bees' nest hanging on a tree <input type="checkbox"/> Boy climbed on a branch / up a tree <input type="checkbox"/> Boy looked into hole in tree <input type="checkbox"/> Boy climbed on rock / boulder <input type="checkbox"/> Boy held onto branches <input type="checkbox"/> Boy called out 'Frog where are you?' <input type="checkbox"/> Boy fell on deer's head / boy got caught on deer's head	

	<ul style="list-style-type: none"> <input type="checkbox"/> Boy and dog looked for frogs behind hollow log <input type="checkbox"/> Boy and dog climbed on hollow log 	
Consequences	<ul style="list-style-type: none"> <input type="checkbox"/> Frog escapes as lid not on jar <input type="checkbox"/> Frog escapes as window open <input type="checkbox"/> Dog got head stuck in jar <input type="checkbox"/> Dog fell out of the window (not jumped out of the window) <input type="checkbox"/> Dog broke the jar / the jar broke <input type="checkbox"/> Mole came out <input type="checkbox"/> Dog made the bees' nest fall <input type="checkbox"/> Bees came out of the nest <input type="checkbox"/> Bees chased the dog <input type="checkbox"/> Owl flew out at the boy and boy fell / the dog and bees knocked boy down <input type="checkbox"/> Boy mistook antlers for branches <input type="checkbox"/> Deer carried the boy away / deer running with the boy on his back / the deer took the boy to the cliff <input type="checkbox"/> Dog started running too <input type="checkbox"/> Deer (stopped and) dropped the boy over the cliff / deer threw the boy in the water <input type="checkbox"/> Boy and the dog fell in the water / the boy fell in the water <input type="checkbox"/> Dog ended up on the boy's head 	
Resolution	<ul style="list-style-type: none"> <input type="checkbox"/> Boy and dog found two frogs <input type="checkbox"/> They found baby frogs / a family of frogs <input type="checkbox"/> Boy and dog took the / a frog <input type="checkbox"/> Boy waved goodbye 	
Internal responses	<ul style="list-style-type: none"> <input type="checkbox"/> Boy happy (at start) <input type="checkbox"/> Boy loved his frog <input type="checkbox"/> Boy sad (when frog escapes); boy says "oh no"! <input type="checkbox"/> Boy angry when frog escapes <input type="checkbox"/> Dog sad frog gone <input type="checkbox"/> Dog angry when frog escapes <input type="checkbox"/> Boy surprised frog gone <input type="checkbox"/> Dog surprised frog gone <input type="checkbox"/> Boy scared when dog falls <input type="checkbox"/> Boy angry (when dog breaks jar) <input type="checkbox"/> Dog happy (licking boy's face) <input type="checkbox"/> Boy surprised to find mole <input type="checkbox"/> Boy angry (when mole bites his nose / or smells something unpleasant) <input type="checkbox"/> Mole unhappy to be disturbed <input type="checkbox"/> Bees angry at being disturbed <input type="checkbox"/> Boy not proud to be chased by bees <input type="checkbox"/> When dog hurt by bees, says "ouch". <input type="checkbox"/> Boy irritated by owl who chased him 	

	<ul style="list-style-type: none"> __ Owl angry at being disturbed __ Boy afraid of owl __ Deer angry with boy __ Boy not afraid to be carried by deer __ Deer happy to throw boy in water __ Boy unhappy to be in the water __ Boy happy to be in the water __ Boy happy (when finds family of frogs) __ Do happy (when finds family of frogs) __ Dog astonished to find frogs and pricks up his ears __ Frog happy to see boy and dog again __ Boy didn't want to leave the frogs 	
<p>Inferences</p>	<ul style="list-style-type: none"> __ Boy got dressed __ Boy thought dog had eaten frog __ Boy decided to look for frog / <u>So</u> boy looked for frog __ Boy thinks frog escaped to find his mother __ Dog leaned out of window too far / by accident __ The jar broke as it was fragile / made of glass __ Boy put on his boots __ Boy carried dog so he didn't hurt himself on glass __ Boy thought mole smelt bad / mole bit boy's nose __ Dog tried to get honey __ Dog tried to get bees __ Dog tried to break hive/nest __ Bees want to sting the dog __ Boy falls as boots too big __ Boy climbed on rock to have better view __ The boy accidentally fell on the deer's head __ Deer ran to catch dog __ Dog tried to save boy from deer __ Deer has a bad character __ Boy and dog went underwater before popping back up __ When boy and dog get out of water, they're all wet __ Water is nice and cool, good for swimming __ Boy thought he heard noise (frog noise?) __ Boy told dog to be quiet / Boy whispered to the dog / boy said 'Shh' __ Boy saw his frog __ Boy said "sorry this is our frog" __ Frog in love with another frog __ One frog jumped into the boy's hand __ Boy asked (mummy and daddy frog) if he could take a baby frog __ Boy went back home / they left / they went away __ Boy tossed the frog in the air __ Boy didn't want to separate mum and dad so takes a baby 	

Appendix E Narrative quality coding grid *Frog, where are you?* (Mayer, 1969)

Language: **FRENCH ENGLISH**

	ELEMENT	0	1	2	3	TOTAL /19
SEQUENCE OF EVENTS	_Setting /1 _Characters /1 _Problems/initiating events /1 _Attempts at resolution /1 _Resolution /1 Each either: 0 – 0.5 – 1					5
PRECISE/ACCURATE LANGUAGE USE	Precise referencing (pronoun matching antecedent / Precise first reference to characters with indefinite article, then definite article)	Never	Seldom	Fairly consistently	Consistently	3
	Tense consistency	Never	Seldom	Fairly consistently	Consistently	3
LITERARY DEVICES	Story opening & closure	__No literary opening or closure	__Story opening but no closure __Story closure but no opening	__Story opening and closure		2
	Direct speech	Never uses direct speech embedded in the text	Once or twice uses direct speech embedded in the text	Occasionally uses direct speech embedded in the text (3-4)	Frequently uses direct speech embedded in the text (4+)	3

	Storytelling style	Neutral voice	Seldom dramatic voice (once or twice)	Periodically adds dramatic voice	Consistently dramatic voice (pauses for drama; embeds a question for dramatic effect)	3
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Appendix F Results tables

Microstructure analysis

	Number words E	Number words F	VocD E	VocD F	Ratio morphosyntactic errors E	Ratio morphosyntactic errors F
Ava	225	150	42.4	25.1	.004	.07
Laurène	234	233	31	48.6	.04	.01
Sarah	270	226	34.5	24.7	.06	.04

Macrostructure analysis

	Characters E	Characters F	Initial situation E	Initial situation F	Settings E	Settings F	Initiating events E	Initiating events F	General plot E	General plot F	Consequences E	Consequences F	Resolution E	Resolution F	Internal responses E	Internal responses F	Inferences E	Inferences F	TOTAL E	TOTAL F
Ava	7	4	3	2	1	1	4	4	5	3	5	1	3	3	4	1	6	3	38	22
Laurène	8	8	1	2	1	2	4	4	9	7	3	4	2	1	1	0	1	3	30	31
Sarah	7	7	3	1	0	1	4	4	7	9	2	1	2	2	3	0	6	6	34	31

Narrative quality analysis

	Sequence of events E	Sequence of events F	Precise referencing E	Precise referencing F	Tense consistency E	Tense consistency F	Precise vocab E	Precise vocab F	Story opening and closure E	Story opening and closure F	Direct speech E	Direct speech F	Story telling style E	Story telling style F	TOTAL E	TOTAL F
Ava	5	4	2	2	3	3	2	1	1	2	3	1	3	1	19	14
Laurène	3.5	4	3	3	2	2	3	3	1	2	2	0	3	0	17.5	14
Sarah	4.5	4.5	3	3	3	3	2	2	1	2	3	3	3	3	19.5	20.5