

Monolingual and Bilingual Narrative Production and Comprehension across Cultures

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Summary

Purpose: Children's narrative development has been argued as more dependent on age and much less on linguistic abilities and cultural backgrounds, which is also the case for bilingual children's narrative development across two languages. Research on this topic has paid more attention to the narrative capacity of monolingual and bilingual children during the pre-school years but much less to Mandarin-speaking school-aged children and the impact of culture on their narrative development. Thus, the aim of this study is to fill this research gap, by investigating the narrative competences of monolingual Mandarin-speaking and English-Mandarin bilingual school-aged children (aged 9) in two cultural contexts, viz contemporary Irish and Chinese, with a focus on how invariant bilingual children's narrative abilities are across their two languages and how cultural and linguistic experience influences the narrative development of these groups of children.

Method: This study used a mixed research method. A total of 20 monolingual Mandarin-speaking children narrated two stories in Mandarin, and 20 English-Mandarin bilingual children narrated one story in English and one in Mandarin. The analysis was made quantitatively and descriptively by comparing the Mandarin narratives of the monolingual and bilingual groups, and the English and Mandarin narratives among the bilingual group. Data regarding children's language experiences and narrative socialisation at home and at school were collected from 40 questionnaires completed by the children's parents and eight interviews with the children's parents and teachers.

Results: The English narratives of the 9-year-old English-Mandarin bilingual children contained substantially more macrostructural components and provided more description of behaviours than their Mandarin narratives. In comparison with their monolingual peers, the bilinguals' Mandarin narratives included less concrete beginnings yet considerably more internal states as reaction, especially the emotions of the story characters. Moreover, the bilinguals fared significantly better in narrative comprehension in Mandarin than their monolingual peers, especially for the internal states of the story characters. The imbalance

in language proficiency in the bilinguals' two languages, and the differences in narrative activities at home and school-based narrative instruction between the monolinguals and bilinguals may explain these findings. Additionally, the monolinguals' Mandarin narratives contained evident judgements about the moral correctness of story characters' behaviours and restrained emotional expression, which are in line with expectations about those children's narrative socialisation at home and school under the influence of Chinese culture.

Conclusions: Overall, the present study provides rich evidence for the multiplicity of monolingual Mandarin-speaking and bilingual English-Mandarin school-aged children's narrative production. It highlights how language proficiency in bilinguals' two languages, school-based narrative instruction, and narrative activities at home and school for monolinguals and bilinguals, as well as Chinese culture, all interact and combine to influence monolingual and bilingual children's narrative skills.

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Chapter 1 Introduction

1.1 Introduction

This doctoral study investigates monolingual Mandarin-speaking and bilingual English-Mandarin-speaking school-aged children's narrative production and comprehension in two cultural contexts, viz contemporary Irish and Chinese, with a focus on how Chinese culture influences these groups of children's narrative development. For children, narrative is pervasive. From infancy, children are steeped in narrative and eventually learn to 'dream in narrative, daydream in narrative, remember, anticipate, hope, despair, believe, doubt, plan, revise, criticise, construct, gossip, learn, hate and love by narrative' (Hardy, 1968, p. 5). Due to the multifaceted nature of constructing narratives, children need to be equipped at the micro- and macrostructural levels not only with competencies, viz linguistic and specific narrative knowledge, to describe their experiences, but also with the cognitive skills and socio-cultural knowledge needed to articulate their intentions and internal states, to remain socially and culturally acceptable, and to understand what others are trying to communicate (Chang & McCabe, 2013; Wang & Leichtman, 2000). However, this is rather demanding for English-Mandarin and other bilingual children who acquire two languages and are exposed to two cultures.

In recent years, several studies have examined the narrative production of monolingual children from different cultural backgrounds and that of bilingual children in two languages (Fiestas & Peña, 2004; Gao, 2013; Minami, 2002; Wang & Leitchman, 2000). These studies show that some of the differences identified may be due to cultural differences. However, only a limited number of studies has focused on bilingual English-Mandarin speaking school-aged children (Yan et al., 2017; Chen & Pan, 2009; Chen & Yan, 2011; Jia et al., 2010), and less consideration has been given to the influence of culture, particularly Chinese culture, on their narrative development (for a more extensive review, see Section 3.3). Therefore, the primary aim of this doctoral work is to fill this research gap by examining the influence of Chinese culture on the narrative production and comprehension of bilingual English-Mandarin and monolingual Mandarin-speaking school-aged children. In addition, as school-aged children are influenced by both their home and school environments, this thesis also

aims to explore the influence of the activities conducted in these environments on children's narrative production and comprehension.

This introductory chapter provides an overview of the thesis. Sections 1.2 and 1.3 begin by providing definitions of the two basic concepts of 'narrative' and 'culture' that are the cornerstones of this study. Since 'culture' manifests in various forms, Section 1.3 is in no way sufficient to describe and integrate a theory that encompasses every cultural situation. Instead, it focuses primarily on discerning culture in narrative development and depends on the logic of culture impacting parental narrative behaviours and in turn influencing children's narrative development, which is also the logic that underpins the entirety of this thesis. Subsequently, Section 1.4 describes in detail the rationale for focusing on the evaluation of children's narratives. Next, the research aims of this study are presented in Section 1.6. This is followed by Section 1.7, which details the research questions proposed to accomplish the research aims. Finally, the structure of the thesis is outlined in Section 1.8.

1.2 Defining Narratives in This Study

As the subject of numerous studies, narrative has emerged in different forms among various research fields. These range from narrative being viewed as a vehicle for documenting and transmitting the history or mythology of human beings in historical and anthropological studies (Mandelbaum, 1967; Rapport & Overing, 2000) and an object of analysis of authorial writing modes and styles in literary research (Stanzel, 1984) to a source of exploring individual self-identity in the fields of social sciences, applied linguistics, and cultural studies (McAdams, 2004; Benson, 2014). With the exception of narrative music and film studies (Almén, 2017; Branigan, 2013), where narrative is less verbally related, the majority of the relevant studies are centred on narrative as a textual or discursive genre. That is to say, some common verbal or linguistic characteristics of narrative definitions can be outlined, especially for the children's narrative concerned in the present study.

First, the process of narration can be simply equated with storytelling, in which a series of events carried out by a living being is depicted. Labov has described this process of personal narration as 'recapitulating past experience by matching a verbal sequence of clauses to the sequence of events which actually occurred' (1972, pp. 359–360). The concept of a minimal narrative was summarised by Labov as containing 'a

sequence of two clauses which are temporally ordered' (1972, p. 360). In other words, the events that are recapitulated or described in a narrative are not just randomly ordered but generally linked temporally or causally to enable the meaning of the narrative to be delivered (Labov, 1972; Riessman, 2008). Although not all scholars agree that causality between events is a necessary part of a narrative (e.g., Prince, 1982), lists of isolated events are generally excluded from a narrative. Moreover, it should be noted that, apart from a sequence of real events, narrative also includes fictional events (Prince, 2003).

Second, a complete narrative contains a basic macrostructure, which has been analysed by researchers (e.g., Labov & Waletzky, 1967; Rumelhart, 1975; Stein & Glenn, 1979) and referred to as story grammar model. Bruke (1969) has proposed that a basic narrative macrostructure consists of 'Act, Scene Agent, Agency, Purpose' (p. xv). Some of these macrostructural components continue to be utilised in various studies under different names to generate the basic structure of narratives. Two story grammar models, one derived from personal narratives (Labov & Waletzky, 1967) and the other from fictional narratives (Stein & Glenn, 1979), will be reviewed and compared in the next chapter, with the latter serving as the theoretical framework for this study's analysis of children's narratives.

Finally, according to Bruner (1986), narrative contains 'dual landscapes' (p. 14). In addition to a series of events as the 'landscape of action', narrative also contains the 'landscape of consciousness' that conveys the narrators' or depicted characters' internal states, such as behavioural intentions in the event, needs, desires, emotions and mental activities, which are either explicitly narrated or interpretable by the listener (Bruner, 1990). In other words, narrative is a means of enabling people's experiences and internal states to be recognised, delivered, and meaningfully understood in interactions.

In a nutshell, while this study focuses on the narratives told by children, narrative is defined linguistically as a type of discourse with more than two utterances that follows a basic structure. It portrays not just the events that occur but also the narrator's or the characters' internal states, or both, that are meaningfully articulated or subject to interpretation by the listener.

1.3 Culture in Children's Narrative Development

1.3.1 Defining Culture in this Study

The study of culture has a long history, during which it has been widely agreed that an all-encompassing theory or interpretation of culture has been problematic to construct. However, it should be noted that this section is not intended to be exhaustive in its definitions. The purpose of theorising culture in this section is to establish a foundation that sustains the logic of the present investigation.

A number of discussions define culture in terms of its categories, such as those concerning the function of what culture contains in establishing boundaries between groups (e.g., ethnic groups) (Thornton, 1988; Hofstede, 2001); the larger concept of 'national culture', such as 'Chinese culture' and 'Western culture', and the concept of 'small culture', which stems from 'educational, classroom, collegial and peer experience' (Holliday, 2010, p. 206); and the collectivism and individualism of culture (Hofstede, 2001). As the focus of this study is on children located in different countries, however, this thesis will use the broad concept of 'national cultures' such as Chinese, Irish, and Western cultures to refer to the culture of the societies in which the children are located.

There are also definitions that explore what culture contains and its function. The anthropologist Edward Burnett Tylor (1871) defined culture as a 'complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society' (p. 1). Goodenough (1957) further pointed out, in his work *Cultural Anthropology and Linguistics*, that the purpose of members of a society acquiring culture is 'to operate in a manner acceptable to its members, and to do so in any role that they accept for any one of themselves' (p. 167). Kroeber and Parsons (1958) viewed culture as a sociological term and clearly pointed out its role 'as factors in the shaping of human behaviour' (p. 583). Similarly, the applied linguist Spencer-Oatey (2008) refined the function of culture of a group or society as directed to 'influence (but do not determine) each member's behaviour' (p. 3). Even though these definitions are proposed by different scholars from various research fields, an obvious characteristic encompassed by culture has been consistent across studies, viz a set of values, fields of knowledge, beliefs, attitudes, and customs shared by a group of people that differs for different groups. People acquire culture as

members of a group, which shapes their behaviour and makes it acceptable to the group. This is the definition of culture that the present study adopts.

Since culture is closely related to lived experience, an interpretation of individual behaviours, and especially their patterns, is a way to tap into the culture they operate with. The question then becomes what exactly the process is by which culture influences people's behaviours and how it is related to the present study in children's narrative development, which will be answered in the next two sub-sections.

1.3.2 The Influence of Cultural Knowledge and Value on Behaviour

Behavioural patterns have been proposed by Kroeber and Parsons (1958) as the explicit side of culture. As reviewed in the previous sub-section, the influence of culture on human behaviour has been widely recognised (Kroeber & Parsons, 1958; Spencer-Oatey, 2008). In other words, behavioural patterns are one of the outward manifestations of, and are guided by, the intangible set of knowledge, values, beliefs, attitudes, and practices of culture. In this sub-section, two theoretical perspectives are reviewed, viz 'culture-as-knowledge' and 'culture-as-value', that view culture as both shared by a group of people in a society and influencing their behavioural patterns. However, these two perspectives differ in their focus on how they believe the process of cultural influence operates.

From the 'culture-as-knowledge' perspective, group members learn and store specific cultural knowledge about appropriate actions to take in different contexts (D'Andrade & Roy, 1995). Nishida (1999) suggested that individuals are equipped with a stock of cultural knowledge about 'appropriate behavio[u]r and an appropriate role he/she should play in the situation' (p. 754). Such knowledge-stocks are known as schemata for the purpose of social interactions, prior to engaging in social and cross-cultural activities. This knowledge is retrieved when people enter a familiar or even a new social or interactive situation in order to identify the specific situation, choose an interaction strategy, and decide on certain behaviours to be performed (Turner, 1994). In contrast, the influence of culture on behaviours as considered by other scholars from a 'culture-as-value' perspective (Auernheimer, 2002, as cited in Busch, 2009) focuses on how people's repository of cultural values from society underlies their behavioural preferences. According to this perspective, cultural values underpin the choice of certain forms of action by a given cultural group in a specific cultural context, while

other forms of action may also be taken.

The separation of these two perspectives has been criticised as inadequate in understanding people's behaviours (Swidler, 2001), and a combination of them is recommended. The reason for this is that individuals acquire cultural knowledge and are guided by a repertoire of cultural knowledge to cope with various social activities. For people who speak more than one language, they need to acquire knowledge of more than one culture in a cross-cultural context. Thus, when performing a particular activity, individuals may consciously or unconsciously retrieve certain knowledge or patterns, thereby creating behavioural preferences.

Overall, these two perspectives should be seen more as a parsing of the impact of culture on people's behaviours at different points in time and in different contexts. Therefore, in order to fully understand the impact of culture, especially that of biculturalism, on children's narrative development, the two perspectives have needed to be integrated rather than separated in the present study. Accordingly, the 'culture-as-knowledge' perspective is adopted when focusing on the acquisition of culture, while 'culture-as-value' is used in the rest of the thesis to focus on the influence of culture on people's behavioural preferences and, subsequently, on the formation of cultural patterns.

1.3.3 Culture and Children's Narrative Development

Culture is learnable and passed down from one generation to another (Fischer & Lazerson, 1984; Holmes, 2020). Children are born without any culture but gradually acquire it through the process of language socialisation, 'whereby children and other novices are sociali[s]ed through language, part of such sociali[s]ation being a sociali[s]ation to use language meaningfully, appropriately, and effectively' (Ochs, 1996, p. 408).

Parents and those around children play crucial roles during children's language socialisation. In line with the 'culture-as-knowledge' and 'culture-as-value' perspectives reviewed above, parents and other interlocutors store a repertory of cultural knowledge about the use of language and are likely to follow specific cultural values when interacting with their children. As a result, parents' child socialisation practices tend to exhibit distinct behavioural patterns shaped by different cultural values (Koh & Wang, 2013).

On the child's side, their language and later narrative skills begin to emerge and develop during the process of language socialisation, and they acquire knowledge of what socially and culturally acceptable narrative behaviours to adopt in certain contexts (Fischer & Lazerson, 1984; Minami, 2002), such as emphasis on politeness (Koh & Wang, 2013), and the social acceptance of loanwords (Burdelski, 2021) during this process. Children's language use and narrative production in turn will be influenced by and reflect the cultural values by which they are socialised. Additionally, the entire learning and transmission process does not cease when they enter second language socialisation communities, such as schools and other educational institutions, and interact with other interlocutors, such as peers and teachers.

Furthermore, it has been emphasised that there is no universal narrative capacity that could help people adapt to the diverse cultural environments in which they live (Bruner, 1990). For some subjects of this study, the English-Mandarin bilingual children who are socialised in two languages inevitably acquire knowledge of both cultures. Therefore, by evaluating the English-Mandarin bilingual children's narrative productions and comparing them with the monolingual Mandarin-speaking children, the extent to which Chinese culture and biculturalism influence narrative production can be examined. This is one of the rationales for conducting this study. The next section outlines further reasons for evaluating children's narratives from three main perspectives: linguistic; cognitive; and cultural.

1.4 Rationale for Evaluating Children's Narrative

Among several domains in children's language development, narrative is considered to be significant, especially for school-aged children (Karmiloff-Smith, 1986; McCabe, 1996; O'Neill et al., 2004; Oakhill & Cain, 2007). Narrative development is a combination of culture, emotion, and cognition (Wang & Leichtman, 2000). This multidimensional nature of narrative allows it to provide a wealth of information that enables researchers to assess children's linguistic, cognitive, and cultural abilities.

First, the production of narrative 'requires a sense of purpose, the selection of relevant information, the clear and orderly exchange of this information, the ability to make necessary repairs and the ability to assume the perspective of the listener or audience' (Roth, 1986, p. 22). In order to achieve this, children need to have certain

linguistic competencies, including not only the use of explicit vocabulary, precise pronouns, and temporal and causal connectives but also knowledge of the macrostructure of stories. Thus, evaluating children's narratives provides a means of examining these competencies. In addition, narrative reflects children's decontextualisation ability to use the above knowledge to construct events meaningfully for their interlocutors. Furthermore, children's narratives of fictional stories reflect, in addition to the above mentioned abilities, their ability to understand and interpret the stories themselves in the first place.

Second, as pointed out in Section 1.2, narration is a cognitive activity in which children express their internal states. Children's cognitive development has been identified as developing with age (Gathercole et al., 2004) and as key to children's narrative construction. Two dimensions, namely working memory and theory of mind, are discussed in the next chapter in relation to the relevant literature (see 2.5.4). However, to expand briefly here, children's working memory needs to develop to a certain level of complexity to remember, store and process sufficient information for meaningful narrative construction. The development of theory of mind enables children to be able to understand not only their own intentions, wants, needs, and attitudes and express them explicitly in their personal stories but also to understand and speak on behalf of the inner states of others or the characters in fictional narratives. Evaluating children's narratives therefore reveals not only the development of children's cognitive complexity but also their ability in the expression and comprehension of internal states.

Third, children's narrative production is an ideal point of entry into the process of cultural influence. As described in Section 1.3, children acquire social cultural knowledge that can be transformed into individual knowledge through interactions with others. Individual knowledge in turn shapes the way children narrate. Therefore, children's narrative exhibits characteristics that convey the influence of a given culture. Evaluating children's narratives can thus mirror the cultural differences among children from different cultural and linguistic backgrounds (Koh & Wang, 2013; Wang & Leichtman, 2000).

Equally importantly, narrative skills have been widely recognised as an essential indicator of children's later literacy development as well as academic success (e.g. Chang, 2006; Griffin et al., 2004; Oakhill & Cain, 2007). Chang (2006) has argued that 'strong decontextuali[s]ed language skill is the early root of literacy, and preschool years are the crucial period of oral language development to ensure future, long-term

success in literacy acquisition’ (pp. 288–9). Children’s oral narrative skills facilitate their transition from oral to written language, from detailed descriptions of concepts and events to abstract generalisations, which will contribute to some extent to their academic performance (McCabe, 1997). Thus, an assessment of children’s narrative production might be beneficial to understanding their later literacy and academic performance in school. For these reasons, understanding children’s narrative development is an integral part of understanding their language acquisition, especially for bilingual children.

1.5 Research Aims

The present study intends to fill the gap in the narrative development of school-aged bilingual English-Mandarin and monolingual Mandarin-speaking children (for the Literature Review, see Chapter 3). It comprehensively assesses bilingual children’s narrative production and comprehension in both languages and compares their narrative competence in Mandarin with their monolingual Mandarin-speaking peers. This study also takes into account the complexity of 9-year-old school-aged children’s environments for narrative development and aims to contribute to the theoretical discussions of the importance of considering the influence of language proficiency (for a wider review, see 2.5.5), school-based narrative instruction (see 2.5.2), narrative activities (see 2.5.1), and cultural values (see 3.2.3) on the assessment of narrative development in children with a Mandarin-speaking background. Moreover, to the best of my knowledge, no research has been carried out to investigate bilingual children’s narrative under the influences of Irish and Chinese cultural contexts. Hence, the current study aims to shed light on this research gap.

1.6 Research Questions

In order to achieve the above mentioned aims, the following research questions have been formulated. Although the research questions were drawn from the relevant literature reviewed in the following two chapters, the data collection design of the present study was finalised in the context of the outbreak and spread of Covid-19 in China and Ireland, which will be further elaborated in Chapter 4.

1. What are the narrative competences of the English-Mandarin bilingual children at age 9?

(a) At the macrostructural level, does the production of macrostructural components, macrostructural complexity, and internal state terms differ across the bilingual English-Mandarin children's two languages?

(b) At the macrostructural level, does the production of macrostructural components, macrostructural complexity, and internal state terms in Mandarin differ between the bilingual and monolingual children?

(c) At the microstructural level, are the length and lexical complexity of narratives in Mandarin comparable between the bilingual and monolingual children?

(d) Does the comprehension of narratives differ across the bilingual English-Mandarin children's two languages, and between the bilingual and monolingual children in Mandarin?

2. What roles do language input, the narrative activities at home, and language proficiency play in the narrative production and comprehension of the Mandarin-speaking monolingual children and the English-Mandarin bilingual children?

(a) Do the relative language inputs in English and Mandarin have an impact on the Mandarin-English bilingual children's narrative production in the two languages?

(b) Does the bilingual children's language proficiency in Mandarin and English have an impact on their narrative production in the two languages?

(c) What are the similarities and differences between English and Mandarin in terms of narrative activities at home for the bilingual children? What are the similarities and differences between narrative activities at home for the monolingual and bilingual children in Mandarin?

(d) Do narrative activities conducted at home have an impact on the bilingual Mandarin-English children's narrative production in two languages, and on the monolingual children's narrative production in Mandarin?

3. To what extent does culture influence the narrative production and comprehension of the Mandarin-speaking monolingual children and English-Mandarin bilingual children?

(a) To what extent are the monolingual and bilingual children's family narrative socialisation practices associated with the cultural values of

moral and introspective orientations, restrained emotional expression, and variations in relation to gender expectations (as discussed in Section 3.2.3)?

(b) To what extent is the monolingual and bilingual children's school-based instruction associated with the cultural values of moral and introspective orientations, restrained emotional expression, and variations in relation to gender expectations?

(c) What are the similarities and differences between the monolingual and bilingual children's family narrative socialisation practices and school-based instruction?

(d) To what extent is the monolingual and bilingual children's narrative production (as measured in Question 1) associated with the cultural values of moral and introspective orientations, restrained emotional expression, and variations in relation to gender expectations?

(e) How does the influence of culture on family narrative socialisation practices and school-based instruction impact children's narrative production?

1.7 Thesis Structure

In addition to this introductory chapter, this thesis contains 8 chapters. Chapter 2 focuses on the literature on children's narrative development in general. The evaluation of children's narrative production is reviewed in macrostructural and microstructural domains, and the methodologies utilised to elicit, collect, and analyse children's narratives are recapitulated. Furthermore, the factors that influence children's narrative development are explored, including interlocutors' input and narrative styles, school-based narrative instructions, age, cognitive complexity, language specificity, and cultural influence.

Chapter 3 provides an overview of the studies on narrative development of monolingual Mandarin-speaking and English-Mandarin bilingual children, focusing on the impact of culture on narrative development and home language socialisation. The impact of Chinese cultural values, viz moral and introspective orientations, restrained emotional expression, and variations in relation to gender expectations on children's language socialisation practices, all of which in turn influence children's narrative development, is reviewed.

Chapter 4 explores the key research questions, after which the hypotheses based

on the Literature Review are proposed. Next, the mixed research design, study participant descriptions, research instruments devised and used, data coding and analysis, and general ethical and methodological issues for the current study are outlined.

Chapters 5 to 7 report the data analysis, with the research findings summarised at the end of each chapter in response to corresponding research questions. In Chapter 5, the narrative abilities of monolingual Mandarin-speaking children (n=20) and bilingual English-Mandarin children (n=20), which are evaluated utilising the Multilingual Assessment Instrument for Narratives (the MAIN) (Gagarina et al., 2012), are reported quantitatively and descriptively on narrative production at both macrostructural and microstructural levels, as well as narrative comprehension. In addition, an analysis of cultural expressions in children's narrative production is also presented.

Chapter 6 examines data on bilingual children's relative input of and language proficiency levels in two languages, as well as the monolingual and bilingual children's frequent narrative activities at home, based on questionnaires filled in by parents. The impacts of relative language input and language proficiency on the bilinguals, and narrative activities on the narrative production of both the monolingual and bilingual children, are then explored.

Chapter 7 thematically details the information provided by the parents and teachers in the interviews. Parent/teacher-child interactions, sibling/peer-child interactions, and narrative activities in the home and school contexts are first reported. This is followed by an analysis of the realisation of three Chinese cultural values in these contexts.

Chapter 8 provides a discussion of the findings reported in Chapter 5–7 in relation to the research hypotheses raised in Chapter 4. The language proficiency, narrative activities, and school-based narrative instructions on monolingual and bilingual narrative competency are then explored. The impact of culture on the monolingual and bilingual children's narrative production and comprehension is next examined, which is also under the influence of children's narrative socialisation.

Chapter 9 concludes the thesis by first synthesising the findings of the comprehensive influence of these influential factors on children's narrative competences. Next, the contributions of this study are outlined, and limitations and implication of this study and directions for future research are presented.

Chapter 2 Investigating Children's Narrative Development

2.1 Introduction

This chapter focuses on the investigation of children's narrative development in general and recapitulates the approaches used to elicit, collect and analyse children's narratives, and the generic factors that influence child narrative development. Each section in this chapter includes a review of the relevant literature. In Section 2.2, the evaluation of children's narrative development is reviewed in the macrostructural domain (sub-section 2.2.1) with a focus on analytic models; and in the microstructural domain (sub-section 2.2.2) with a focus on linguistic aspects. Section 2.3 then addresses the impact of children's cognitive complexity on their narrative development. Section 2.4 outlines the different types of children's narrative that can be elicited and collected in studies, namely spontaneous conversations (sub-section 2.4.1), personal genre-specific narratives (sub-section 2.4.2), and fictional narratives (sub-section 2.4.3). In Section 2.5, the narrative assessment tool Multilingual Assessment Instrument for Narratives (henceforth referred to as the MAIN) (Gagarina et al., 2012), which is designed to evaluate children's narratives at both the microstructural and macrostructural levels, is presented. In addition, this section compares the narrative development of children with and without developmental language disorder (DLD) or specific language impairment (SLI) at the micro- and macrostructural levels, as evaluated by the MAIN, as well as other assessment instruments. Next, in Section 2.6, those linguistic and sociolinguistic factors influencing children's narrative development are discussed, namely the input and narrative styles of interlocutors, school-based narrative instruction, language specificity, and cultural influence. Finally, Section 2.7 provides a summary of this chapter.

2.2 Evaluating Children's Narrative

The evaluation of children's narrative production is divided into two broad dimensions: macrostructure and microstructure. Macrostructure refers to the basic structure and framework of narrative that corresponds to the story grammar models generated by researchers (Labov & Waletzky, 1967; Rumelhart, 1975; Stein & Glenn, 1975, 1979), while microstructure refers to the linguistic coding of the narrative. The question of exactly what macrostructural and microstructural competences and/or

knowledge are required for children to engage in narrative production has been widely discussed. Children's macrostructural narrative capacities have been investigated in different domains, ranging from the basic structure, the so-called story grammar (Peterson & McCabe, 1983; Lindgren, 2019), the causality between events produced (McCabe & Peterson, 1985; Fichman et al., 2017), and how children's mental processes become apparent when their internality (for example, emotions) is expressed (Wang & Leichtman, 2000; Altman et al., 2016), whereas children's microstructural competences are concerned with how the language is used.

In this section, models of basic narrative structure are first compared, including two models summarised by Labov and Waletzky (1967) and Stein and Glenn (1975, 1979), and the applied analysis of narrative structure and its complexity is reviewed. Next, the micro-linguistic aspects of narrative are reviewed in terms of the different measures, and also in terms of the formal and functional analysis. Microstructural productivity as an indicator of identifying language developmental disorders is also specifically discussed here.

2.2.1 Evaluating Children's Narrative at the Macrostructural Level

Story grammar refers to the mental schemata that underlie narrative processing and guide information organisation (Hudson & Shapiro, 1991; Trabasso & Rodkin, 1994) and can be defined as 'the theoretical structure that causes one sample of discourse which embodies a series of temporal events to be a coherent narrative while another construction of the same sentences is not' (Brewer & Lichtenstein, 1980, p. 8). Two story grammar models are reviewed in this section; one proposed by Labov and Waletzky (1967) and another summarised by Stein and Glenn (1975, 1979). While Labov and Waletzky's story grammar model (1967) is based on personal narratives, Stein and Glenn's story grammar model is generalised and validated from children's fiction in 1975 and 1979. Among many other attempts to describe the basic story structure (e.g., Mandler & Johnson, 1977; Rumelhart, 1975), these two models have served as the basis for subsequent analysis of children's narratives to the present day and are further developed through extensive research.

2.2.1.1 Labov and Waletzky's Story Grammar Model

In 1967, Labov and Waletzky published a work developing an analysis model of

personal narrative production. By examining narratives from a large number of unsophisticated narrators from different ethnic groups and classes, they first defined the basic rule for differentiating a narrative from a chain of sentences that are not a narrative, in terms of whether these sentences have one temporal juncture or not. They further identified the two functions of narratives: referential and evaluative narrative. Referential clauses contribute to the introduction, maintenance, and reintroduction of entities (such as characters in narrative) and are largely related to the clarity and cohesion of the message conveyed to listeners (Hickmann, 2002). In the case of evaluative clauses, most importantly, they bring their interpretive essence to light, which reveals narrators' attitudes to listeners and is key to delivering information effectively to them.

Furthermore, Labov and Waletzky (1967) isolated the representative units shared by narratives, which refer to the structural components of narrative structure. Therefore, a standard form of narrative is proposed by the researchers, derived from personal experiences with varying degrees of complexity, numbers of structural elements, and ways of carrying out functions, as told by non-professional narrators. According to their summary, a narrative consists of a(n) (a) orientation section; (b) complication section; (c) evaluation section; (d) resolution; and (e) coda. The orientation section presents the character(s), the 'where', the 'when,' and the behavioural situation; however, it is common for this section to be missing from children's personal narratives (Labov & Waletzky, 1967). The complication section comprises a sequence of events and usually operates as the main body of a narrative. The evaluation section reflects the attitude of the narrator towards that narrative and carries out the function of marking the climax of the complication section and the start of the resolution. Narrators express the evaluation statement both explicitly and implicitly by using certain linguistic and non-linguistic devices (Bamberg, 1987). The resolution section concludes the resolving action of characters, which is sometimes embedded in the evaluation. Finally, the coda operates as an instrument to help listeners return from experiences to the present. Many personal narratives end with the resolution section in the absence of the coda section (Labov & Waletzky, 1967).

For children, as Peterson & McCabe argued in their study (1983), the ability to produce an evaluation section and, following a corresponding resolution, occasionally have a coda as the end of a story is a milestone in their narrative competence. However, as Labov has pointed out (1972), although evaluation devices have already begun to

develop in the narratives of 2-year-old children, the ability to use many syntactic devices ‘does not develop until late in life’ (p. 335). Thus, investigating the evaluation competence of younger children might be subject to distinct variations due to its incomplete development.

Even though Labov and Waletzky’s (1967) analysis is both formal and functional, as the researchers themselves stated at the time, narratives from skilled narrators and from other cultural backgrounds needed to be analysed in order to verify the reliability of this analysis model. A number of studies have subsequently applied and discussed the impact and development of this story grammar model in narrative analysis (e.g. Engel, 1997; Lambrou, 2014), some of which were conducted with English-Mandarin bilingual children (Chen & Yan, 2011; Chen & Pan, 2009; Chen & Lei, 2013; Hao et al., 2019). In these studies, the referencing expressions and evaluating productions across languages, both between bilingual children and their monolingual English peers, are usually compared and analysed at morphosyntactic and pragmatic levels (e.g., anaphoric pronouns, Gülzow & Gagarina, 2007), whose results vary. The differences found tend to be language-dependent and can be attributed to cross-language differences (Álvarez, 2003; Chen & Lei, 2013).

The value of this model is that it identifies the basic components of narrative structure and classifies the referential and evaluative functions that are carried out by narrative. However, it is more suitable for analysing narratives about personal past experiences, with a main focus on referencing and evaluating devices. Therefore, this model is less suited in the present study to analyse macrostructural differences between English-Mandarin bilingual and Mandarin-speaking monolingual children in two cultural contexts.

2.2.1.2 Stein and Glenn’s Story Grammar Model

Stein and Glenn’s story grammar model (1975, 1979) is generalised from children’s literature and stories and is sufficiently sophisticated to analyse complicated fictional stories. Their generalisation of the model reflects the mental schema underlying story organisations, with categories of model components and internal relations between those components derived from Bartlett’s (1932) investigation of story recall. When narrators recall a story, they do not memorise every linguistic aspect of it; instead, the structure of the story, which is stable and consistent to a certain extent

across individuals, plays an important role in the process of recalling stories (Bartlett, 1932; Stein & Glenn, 1979). Based on Bartlett's (1932) emphasis of the independent function of structure in story organisation, Stein and Glenn (1979) further developed the story grammar model in their analysis of children's literature by providing explicit description of the structure.

Stein and Glenn (1979) highlighted that a schematic model for analysing a story must include not only the categories (e.g., the setting and episode systems) but also the logical relations between them. The story grammar components and the complete story binary structure are shown in Figure 2.1.

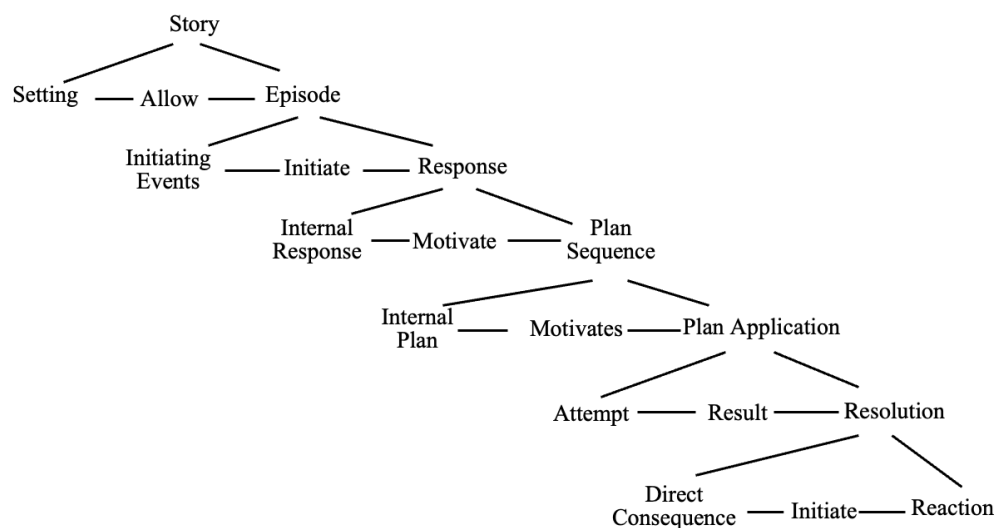


Figure 2.1 Structure of a Simple Episode (Stein & Glenn, 1979, p. 61)

The setting gives the main character(s) and the background of the story, including 'the long-term or habitual states' (Stein & Glenn, 1979, p. 59) of the main characters and the 'social, physical or temporal states' (Stein & Glenn, 1979, p. 59) of the background. The setting is usually used to begin the story; however, it may appear elsewhere in the story when a new character or context need to be introduced. The episode system consists of an entire goal-directed behavioural sequence and is the primary unit of the structure. Based on this model, Westby (1984) has summarised the classic story structure pattern of most Western stories as follows:

They begin with a setting, followed by an event or perception (initiating event) to which a character reacts (emotionally, cognitively, and/or behaviourally). The

initiating event motivates a character to establish a goal to cope with the event or perception. To achieve the goal, the character must implement a series of attempts that yield consequences or outcomes to which characters respond emotionally (e.g., relieved), cognitively (e.g., decided to forgive), and/or behaviourally (e.g., returned home). (p. 201)

Stein and Glenn (1979) has also defined a binary network of plots that are not only chronological events but also internal cause-effect relationships between each subcategory that help listeners understand the story (Brewer & Lichtenstein, 1980).

However, some complicated stories do not contain only one Goal-Attempt-Outcome (GAO) episode. In such stories, a GAO episode might function as the goal in another set of GAO episodes or when the attempt in the first episode fails to achieve the goal, resulting in another attempt-outcome series. Some stories also have more than one character interacting with each other, yet no matter how complex the plotline of stories, the story grammar structure underlies their constructions.

2.2.1.3 Episodic Analysis of Narrative

Episodic analysis of narrative has been developed based on Stein and Glen's story grammar structure. The basic assumptions of this analysis theory are (a) most stories are constructed based on a well-organised structure (Mandler & DeForest, 1979; Stein & Glenn, 1979; Thorndyke, 1977) and (b) this macrostructure is invariant across languages and cultures (Kunnari et al., 2016; Peterson & McCabe, 1983).

The analysis unit in episodic analysis of narrative is the statement, and stories are viewed as the collaboration of informative statements. These statements can be classified into different categories and are constructed logically in the narrative. By analysing children's personal and fictional stories, seven main structural categories were identified by Stein and Glenn (1975) as follows, whose ordering is based on complexity: *descriptive sequences*; *action sequences*; *reactive sequences*; *abbreviated episodes*; *complete episodes*; *complex episodes*; and *interactive episodes*. In addition, each structure contains all the elements of the previous structure and adds one more element on the basis of the previous one. The descriptions of each category were summarised by Peterson and McCabe (1983). *Descriptive sequences* refer to narratives that only provide a setting and describe characters' habitual actions without causal

relations. Building on the descriptive sequence, *action sequences* include a series of chronological actions. *Reactive sequences* feature causally ordered actions, but the actions happen automatically instead of being motivated by a goal. *Abbreviated sequences* contain an implicit expression of goals of the characters that need to be inferred. *Complete episodes* indicate a complete GAO expression with explicit causal relations. The complexity of a *complex episode* consists in how its elements are embedded in the previous three categories or a multiple plan application. Finally, in an *interactive episode*, the narrative has two characters with separate goals directing their actions respectively and affecting each other simultaneously (p. 71). The stories containing interactive episodes unfold from dual perspectives in two main patterns: a shifting-perspective narrative that describes contiguous, not coextensive, events from alternate perspectives, or an interactive reactive sequence that describes extensive interactions with no evidence of planning. In addition to these categories, stories structured without an outcome are classified as incomplete episodes, while narratives constructed with a complete episode plus an incomplete episode are categorised as multiple structured narratives. Westby (1984, 2012) has modified Stein and Glenn's story grammar model and presented the analysis process of narrative structure as follows (see the Story Grammar Decision Tree in Westby, 2012, p. 211):

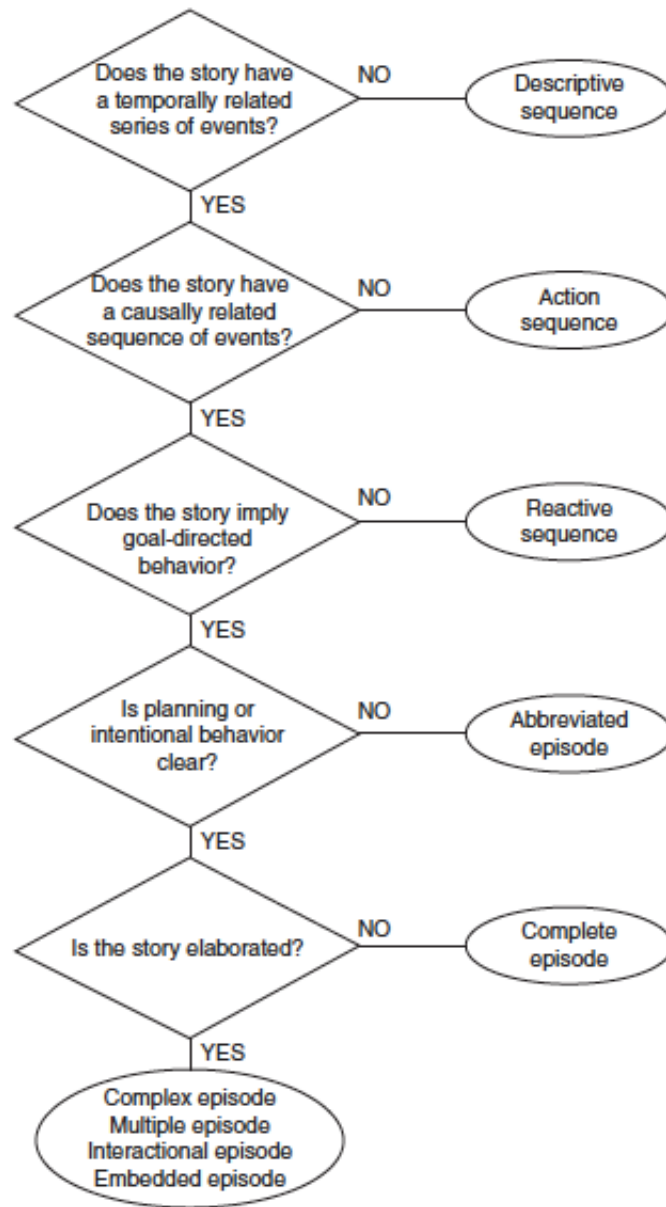


Figure 2.2 Episodic Analysis Process of Narrative Structural Complexity (Westby, 2012, p. 211)

Episodic analysis of narrative derived from fictional stories for children (Stein & Glenn, 1979) has been verified for both personal and fictional stories told by children (Peterson & McCabe, 1983; Champion, 2014). For children, the effect of age on the narrative structure produced is evident (Peterson & McCabe, 1983; Castilla-Earls et al., 2015), with older children producing less isolated but more elaborate and embedded structures. In older children's productions, there are more reactive sequences and complete episodes, suggesting that these children are able to understand and interpret

the causal relationships between events and the interactions between characters.

The causal relation is prominent in Stein and Glenn's story grammar model and the episodic analysis of narrative, which distinguishes episodes and reactive sequences from action and descriptive sequences. Early research has shown that children can understand causal relationships between events as early as age 1;6 (Keil, 1979), while children as young as 2;6–3;6 have already presented the ability to use connectives (Hood et al., 1979). Using episodic narrative analysis, Peterson and McCabe's (1983) study also supports the finding that children at 3;6–9;6 can understand and convey causality, with expression of causality increasing with age. Apart from the physical causal relations between events, Westby (1984, 2012) has emphasised the psychological causal relation, which is reflected by the expressions of internal state of characters, functions as either what causes the characters' behaviours or what results from those behaviours in both the production and comprehension of narrative. Such internal states (for example, emotions) are expressed explicitly or implicitly yet should be able to be inferred.

The study presented in this dissertation adopts Stein and Glenn's story grammar model and the episodic analysis of narrative based on this model, as the former is suitable for analysing fictional stories. This model has also been widely adopted for the analysis of story structure for children who speak more than one language (e.g. Kunnari et al., 2016; Pearson & de Villiers, 2006; Peterson & McCabe, 1983), making it more applicable to an analysis of the narratives of the English-Mandarin bilingual children in the present study.

2.2.2 Evaluating Children's Narrative at the Microstructural Level

The microstructure of narrative development is concerned with the use of language. Length and production complexity, such as the total number of words (TNW) and total number of T-units/C-units; lexical diversity, such as the total number of different words (NDW); and grammatical complexity, such as the mean length of utterance in morphemes and words, have been identified as indicators for children's linguistic growth and microstructural narrative competence (Justice et al., 2006, pp. 181–182).

In addition, microstructural analysis is an important indicator to distinguish typically developing (TD) children from children with developmental language disorders (DLD) (Fey et al., 2004; Hao et al., 2018). Length and production complexity,

lexical diversity, syntactic accuracy, and complexity have been examined in comparative studies on children with and without DLD (Auza et al., 2018; Domsch et al., 2012; Norbury & Bishop, 2003). Several narrative assessment instruments and measurement protocols have been designed to assess children's narrative and to identify children's DLD, some of which are specifically enabled to analyse narratives at the microstructural level, such as the Index of Narrative Microstructure (INMIS) (Justice et al., 2006) and *the Narrative Assessment Protocol* (Justice et al., 2010). Others, such as the Narrative Scoring Scheme (Heilmann et al., 2010), have been designed for both macro- and microstructural levels. Validation of the clinical relevance of these tools has been one of the purposes of applying them to relevant studies (e.g., Hoffman, 2009).

Another analysis approach, form and function analysis, also analyses narrative at the microstructural level and tends to focus on the interaction between linguistic forms and their functions in narratives. Research sub-domains such as cohesion, connectivity, reference, and tense etc. have been investigated from a developmental perspective across different languages for both monolingual and bilingual children (e.g., Bamberg, 1987; Berman & Slobin, 1994). Among the related research, Berman and Slobin (1994) have conducted a large-scale, developmental and cross-language study comparing children from age 3–10 and adults who used the *Frog, Where Are You?* story (Mayer, 1969) (cf. 2.3.3) as an eliciting tool, in which the data were examined by the researchers from dual dimensions: form and function relations; and levels of narrative organisation. First, Berman and Slobin's study (1994) aimed to investigate the interactive relations between function and forms in language development, meaning, in first language acquisition, 'new forms first express old functions, and new functions are first expressed by old forms' (Slobin, 1973, p. 184). By analysing children's expression of such linguistic forms as temporal relations, sequential markers, and null subjects on the one hand, they proposed cross-language similarities and differences. On the other hand, they found a significant age impact on the linguistic forms of children's expressions. For example, as children started to develop a concept of temporal relations between events from a very young age, complex expressions and clause organisations were only expected to appear in older children's narratives. Second, at the level of organisation, the temporal and causal relations increased and became more complex as children increased in age. The structural level of children's narratives at age 9–10 paralleled that of adults, yet the length and complexity of clauses still might not be fully developed compared to adults' narratives.

2.3 Cognitive Development Influencing Children's Narrative Development

The cognitive abilities that children develop with age have been argued to have an impact on children's narrative development (Wang & Leichtman, 2000), at both macrostructural and microstructural levels. In this section, the effect of age on children's narrative is first addressed (2.3.1), in addition to presenting a brief review of the effect of age on children's narrative development in sub-section 2.4.2 in the context of bilingual children. Thus, sub-section 2.3.1 focuses on summarising monolingual children's narrative developmental phases in general. Next, sub-section 2.3.2 addresses the impact of children's cognitive complexity on their narrative development, with an emphasis on working memory and theory of mind. Other linguistic and sociolinguistic factors influencing children's narrative development are presented in Section 2.5.

2.3.1 Age Effect

Children acquire narratives from a very early age, from personal stories shared by others and from fictional stories in picture books. However, pre-schoolers rarely produce narratives with complete story elements (Stadler & Ward, 2005). An early study in this area (Hutson-Nechkash, 1990) summarised the developmental stages of children's narrative structures. These stages of development have been successively confirmed and added to in subsequent studies (Bao, 2011; Berman & Slobin, 1994) and are reviewed here. According to Hutson-Nechkash's summary (1990), pre-narrative structures tend to appear in children's fictional narratives at the age of 2, a period when narrative consists only of simple declarative clauses, with no fixed themes and no clear connections between these declarative sentences, as children tend to produce unrelated clauses without the notion that the characters are the same on every page (Westby, 1984). Between the ages of 2–3, children start to sequence characters, themes, or settings. At ages 3–4, children's narrative consists of causally related events but without a focal character. By 4–4;6 years, the central characters and a set of events with logical relationships are narrated; however, the end of the story is commonly omitted. It is controversial whether 3–4-year-old children use story grammar when generating stories, as they mainly generate sequence sentences (Bamberg, 1987). More importantly, young children seem to act distractedly in narrative tasks while appearing to develop along different paths in comprehension and production.

By age 5, children start to produce full goal-attempt-outcome (GAO) sequences (Trabasso & Nickels, 1992). Based on the results of some studies (Berman & Slobin, 1994; Roch et al., 2016), it has been suggested that children's narratives develop quickly between the ages of 5 and 6. Because of this rapid development at these ages, research evaluating children's narrative production has yielded varied results. The narratives of some 5-year-olds have also shown no distinct improvement compared to those of 3-year-olds (Bao, 2011; Berman & Slobin, 1994). From ages 5–9, the details of settings, the number of the story components, and the frequency of full GAO sequences gradually increase in children's narratives (Stein & Albro, 1997; Castilla-Earls et al., 2015). By age 9, from the macrostructural perspective, most children's narratives resemble those of adults in terms of the number of story components, the frequency of full GAO sequences, the insights into the mental states of the characters, and the expression of comments on the outcome (Berman & Slobin, 1994; Gagné & Crago, 2010). The development of individual narrative skills continues into adulthood, with children gradually becoming capable of producing more sophisticated stories with more refined formulation of their meanings, themes, and the children's reactions to them.

Furthermore, the narrative components are believed to develop at different rates. Among the macrostructural components, the core behavioural components, such as 'initiating event', 'attempt', and 'outcome', are found to appear more frequently and at earlier stages of development in the narrative than the complementary components, such as 'goal', 'internal state terms as initiating events', and 'internal state terms as reaction' (Schneider et al., 2005; Berman & Slobin, 1994; Castilla-Earls et al., 2015). As described in 2.4.3, in comparative studies on children with and without DLD, the lower production and later acquisition of macrostructural components, especially the complementary components, are considered to be the key factors for differentiation (Merritt & Liles, 1989; Kupersmitt & Armon-Lotem, 2019).

In summary, as children grow older, they produce more sophisticated stories with more story components, more complete structures, and more accurate expressions of inner state terms that are approaching adult abilities. More recent research on the development of Mandarin-speaking children's narratives will be reviewed in the next chapter in relation to the developmental stages discussed here.

2.3.2 Cognitive Complexity

Cognitive complexity, such as the development of a theory of mind (Miller, 2006) and working-memory capacity (Trabasso & Nickels, 1992; Gathercole et al., 2004), are considered to be key competencies for children's narrative performance.

Theory of mind (ToM) refers to the 'understanding of mental states – such as belief, desire, and knowledge – that enables us to explain and predict other's behaviour' (Miller, 2006, p. 241). Apart from linguistic coding abilities, ToM contains interpersonal and intrapersonal components which have been argued to be necessary for children acquiring the ability to both express and understand their own and others' internal states, and the behaviours triggered by these internal states (Lucariello, 2004; Miller, 2006). Moreover, this is an integral ability for both personal and fictional narrative constructions. Children's ToM develops rapidly in pre-school years (Flavell, 1999), and it has been argued that this development and change continues even in adulthood (Dumontheil et al., 2010). Children with a mature ToM are able to construct narratives from multiple perspectives and understand the various internal states of characters regarding the same event, which gradually becomes common at the late elementary stage and is consistent with the development of the narrative structure complexity (Westby, 1984).

Working memory is a cognitive information processing skill that children use to store information they interpret from fictional stories and to construct relevant information during narrative (Baddeley & Hitch, 1974; Trabasso et al., 1992). Working memory is thought to steadily develop between the ages of 4 to 15 years. Older children generally possess greater working memory (Gathercole et al., 2004) that recalls, temporarily stores and processes information, enabling them to perform better in narrative production and produce more complicated stories containing obstacles to goals, sophisticated plans, and multiple attempts to achieve goals, helping them perform better in narrative tasks. Different stages of cognitive development lead to different outcome with children's working memory and ToM abilities (Wang & Leichtman, 2000), which explains why younger children perform less well compared to older children and why children at different ages may understand and interpret the mental states of others in different ways.

In addition, since children's ToM development involves social awareness, especially in interactive contexts, it has been argued that such development is

influenced by social and cultural contexts, which contributes to mixed results in research on children's ToM development as both cross-language similarities (Callaghan et al., 2005) and differences (Hughes et al., 2018; Liu et al., 2008) are found. A limited number of studies investigating the characteristics of ToM development in Chinese children, primarily using false belief tests (Hughes et al., 2018; Lewis et al., 2006; Liu et al., 2008), have found that Chinese children growing up in mainland China passed the test at a similar age to children living in the USA; however, children living in Hong Kong passed at an older age. Researchers (Liu et al., 2008; Hughes et al., 2018) have further suggested that different parenting styles, family sizes, and bilingual education may also have contributed to this finding.

To sum up, since working memory and ToM are expected to develop with age, younger children perform less well in narrative production, generating narratives with fewer narrative components and lower complexity. This has made it logical to concentrate this study on school-aged children, with the goal of obtaining more sophisticated narratives than pre-schoolers, to generate sufficient relevant and comparable data. Furthermore, since children's development of ToM has been suggested to be influenced by social and cultural factors, evaluating children's production and comprehension of internal states enables an in-depth exploration of these influences (see also 3.2.3).

2.4 Eliciting and Collecting Children's Narrative

After reviewing the theoretical models used to evaluate and analyse children's narratives, this section focuses on the categories and methods of elicitation and collection of children's narratives. Different types of children's narratives and various methods used to elicit and collect these narratives are evaluated in this section for their applicability to the present study. The children's narratives elicited in the relevant studies can be divided into three categories: spontaneous conversations; genre-specific personal narratives; and fictional narratives.

2.4.1 Spontaneous Conversations

Children's spontaneous narrative conversations can be elicited and collected in natural settings, such as in a family setting with parents or siblings (e.g., Cristofaro &

Tamis-LeMonda, 2011; Williams, 2004) or in an institutional setting with educators/teachers and peers (e.g., Ahn & Stifter, 2006; Andrews et al., 2020). Depending on the research purpose, longitudinal, cross-sectional, and multiple case studies approaches are mostly used to collect these conversations.

Children's spontaneous conversations provide a rich source of information to identify the linguistic milestones and developmental stages of their narrative skills. Related studies (e.g., Peterson & Dodsworth, 1991) have generally used longitudinal research methods to record data on the same group(s) of children at regular intervals. This research approach has also been used to examine the relationship between the characteristics of certain types of narrative talks with interlocutors (primarily parents) and the corresponding abilities of the children, such as between parent-child reminiscences about past events and the development of children's relational self-concept (Song & Wang, 2020), and between parent-child emotional talks and children's socioemotional competence (Doan et al., 2019; Curtis et al., 2020). However, as Kao (2014) points out, this approach tends to be more appropriate for family contexts and pre-school children; moreover, it is extremely time-consuming. For pre-schoolers, family is the primary environment in which children are immersed in narrative at an early age, whose narrative skills develop rapidly in their early childhood. Thus, collecting young children's spontaneous conversations at different stages, at intervals of several months, is sufficient to capture their developmental characteristics.

By contrast, the environments in which school-aged children are exposed to and express narratives are more dynamic and not limited to the family environment. Collecting and analysing spontaneous narrative conversations at home is thereby not sufficient to obtain a comprehensive understanding of school-aged children's narrative development. Furthermore, these children's narratives are developmentally mature relative to pre-schoolers, especially in terms of the former's grammatical features, so the interval between data collection for school-aged children in a study can be extended (e.g., one year in Song & Wang, 2020). However, collecting spontaneous narrative conversations with various interlocutors at multiple locations and longer intervals may result in a number of participants discontinuing their participation during an investigation of the same sample population (see Curtis et al., 2020, with 51 lost samples). A larger sample size is consequently required to ensure the amount of valid data, in conjunction with a significant time commitment to both the data collection and transcription. In addition, not every collection guarantees a similar number and quality

of narratives (see Chang, 2004, for a reduction in the number of narratives in the last data collection) or the emergence of linguistic features in question (Faitaki & Murphy, 2020). Therefore, a cross-sectional study approach tends to be adopted to collect narrative from children in groups with larger age differences to explore developmental patterns (e.g., Gutierrez-Clellen & Hofstetter, 1994, Eisenberg et al., 2008), from children in groups with different linguistic and cultural backgrounds to explore cross-language and cross-cultural similarities and differences (e.g., Leyva et al., 2021), or even in studies with both purposes (e.g., Minami, 2002). In addition, a multiple case studies method is also used in research (e.g., Van Bergen & Salmon, 2010; Sparks et al., 2013) to gain a comprehensive understanding of the parent-child narrative talks of a group of monolingual and monocultural participants.

2.4.2 Personal Genre-specific Narratives

The elicitation and collection of children's genre-specific narratives in oral form can be done in a natural setting by asking children to recall their past experiences of the assigned topic (e.g., McCabe, 1997). Some topics are assigned to young children because they are familiar or common to their culture, thus avoiding an unfamiliarity that would prevent children from producing effective narratives. Early studies (Berman, 1995; Hudson & Shapiro, 1991) have observed that children as young as 3 years old are able to narrate actions in the chronological order of events on familiar topics, such as birthdays, trips to the hospital, or arguments with others. However, the process of eliciting and collecting data needs to be strictly limited to neutral responses from researchers, thus excluding as much as possible the intentional or unintentional scaffolding of the researcher in order to achieve a primary focus on the child's personal narrative (Chang & McCabe, 2013).

In addition, children's retelling of past personal events can also be assigned to specific contexts in order to investigate certain verbal expressions in their narratives. For example, Wang and Leichtman (2000) asked children to recall their past emotional experiences related to the emotions under study, such as 'happy', 'sad', and 'scared', to compare the emotional expressions of Mandarin- and English-speaking 6-year-olds. Moreover, children's narratives in other specific genres may be collected, such as narratives of children introducing themselves to researchers with an awareness of being recorded, to examine the public dimension of children's narrative construction of self-

concept (Uszyńska-Jarmoc, 2004). However, according to Hudson and Shapiro (1991), personal experience reflects what is *actually* experienced, not what is *usually* experienced. Thus, individuals' past personal experiences may be highly varied, and then there is a risk that relevant and comparable information will not appear in the child's narrative.

Furthermore, in related studies (e.g., Sun & Nippold, 2012; Kao, 2014), children's genre-specific narratives, as well as their fictional narratives presented in the following sub-sections, can also be collected in written form. However, such studies have focused more on school-aged children and adolescents, and on their literacy skills and use of literary language, or explored the longitudinal relationship between oral and written narrative skills, and will not be discussed in depth here.

2.4.3 Fictional Narratives in Different Tasks

Compared to spontaneous narrative conversations and personal genre-specific narratives, fictional narratives are the most controllable and are thereby widely used in cross-sectional studies to compare narratives produced by children from different age, linguistic, and/or cultural groups (e.g., Berman & Slobin, 1994; Gagarina 2016; Lindgren, 2018). It is also for this reason that this study chose to collect monolingual Mandarin-speaking children's and bilingual English-Mandarin children's fictional narratives. This type of narrative can be elicited and collected in a controlled setting in which children are asked to perform different narrative tasks by being presented with visual stimuli (e.g., Berman & Slobin, 1994; Willenberg, 2017). Storytelling, story retelling, and story model tasks are the most dominant tasks. In the storytelling task, participants are typically asked to tell a story with or without stimuli as a base. In the story retelling task, participants listen to a story first and retell it later, with or without the help of stimuli, whereas in the model story task, children listen to the model story and then tell a different story using pictures that contain different content.

These tasks have their own merits in terms of stimulating children's narrative production. Story retelling tasks elicit better performance and longer output from children compared to the storytelling tasks (Lever & Sénéchal, 2011), even when parallel material is provided for both tasks (e.g., Roch et al., 2016). According to Roch et al. (2016), one potential reason for this has to do with how memories of the experimenter's storytelling are transferred to participants' narratives. In other words,

what is produced here is not only knowledge about the narrative but also short-term memories related to the previous story, which may be difficult to distinguish. This may also be the case for the model story task, which provides support and contextual information that lies between the storytelling and retelling tasks. In contrast, the storytelling task excludes this potential influence to the greatest extent. However, as Hudson and Shapiro (1991) suggest, fictional stories place greater demands on children's narrative comprehension and expressive skills than personal narratives. In addition to the action of events, fictional narratives may centre on the intentions and internal states of characters and therefore contain more complex plot structures, which are also highly related to the stimulus material chosen for these tasks and the stimuli's complexity.

Wordless picture books are the most frequently used stimuli among the above tasks. Although researchers often have their own preferences when selecting materials for participants from different linguistic and cultural backgrounds, the story *Frog, Where Are You?* (Mayer, 1969) and the subsequent story series, including *Frog on His Own* (1973), *Frog Goes to Dinner* (1974), and *One Frog Too Many* (1975), have been widely used in a variety of languages, including Mandarin (e.g., Zhang, 2013; Hao et al., 2019), and in research on monolingual and bilingual children with and without DLD (Berman & Slobin, 1994; Bennett-Kastor, 2002; Holmqvist et al., 2005; Aktan-Erciyes, 2020). While the 'Frog' stories contain relatively more information and complicated plots, the stories in the Edmonton Narrative Norms Instrument (ENNI, Schneider et al., 2005) contain fewer plots that range from one to three episodes. A further piece of stimulus material, *The Bus Story* (Renfrew, 1969), has similarly been validated in research on children with typical language development (TD) and developmental language disorders (DLD). However, neither of these stimuli is flawless.

In the case of the 'Frog' stories and the ENNI stories, the complexity of materials might elicit different performances from children. In a large-scale study by Heilmann et al. (2016) with 831 participants that compared narratives produced by English- and Spanish-speaking bilingual children with different types of 'Frog' stories in a storytelling task, significant differences in children's vocabulary were found. Children produced the most diverse vocabulary in the *Frog Goes to Dinner* story, which may be due to the fact that this story contains the most episodes. However, even though complex stories may stimulate a variety of vocabulary and longer output, it has been argued that the complex structure and rich information in such stories may make it

difficult to elicit narratives that are applicable to the research focus of the study (Gagarina et al., 2016). In contrast, for material containing a small number of information and episodes, Abdalla et al. (2020) compared the structures of narratives for children aged 4–7 years, elicited by two types of story materials containing one episode and three episodes respectively, using the ENNI (Schneider et al., 2005) and found no systematic differences indicating a significant effect. While stories with complex plots may promote longer and more diverse narratives in children, stories that include fewer plots have been shown to be sufficient to assess TD children’s narratives in studies on narrative structure.

The Bus Story, on the other hand, may lead to overidentification of children with DLD (Pankratz et al., 2007; Westerveld & Vidler, 2015). Compared to the production elicited by the *Frog, Where Are You?* story in the retelling task, the Australian Grade 2 children in Westerveld and Vidler’s study (2015) produced shorter narratives with less varied vocabulary using *The Bus Story*, and the percentages of school-aged children (Grades 1–4) in this study (ranging from 21% to 64%) did not match the expected measures of story length and content.

In addition, wordless picture books, as well as other stimuli such as videos, have enabled studies to collect narratives from different groups for children from various linguistic backgrounds (e.g., Berman & Slobin, 1994; Hoang et al., 2016). However, if stimuli like the ‘Frog’ stories and videos are used for bilingual children, the same materials will inevitably be used to assess both their languages. This might result in information-sharing between participants and researchers, which could lead to the omission of many details in the second narrative by the participant and ultimately create an imbalance between the two data collections (Faitaki & Murphy, 2020). Therefore, this study chose the stories from the MAIN assessment tool (for a discussion of the MAIN, see Section 2.4), which are specially designed to elicit narratives from bilingual children, to exclude the effect of this information-sharing as far as possible.

2.5 Assessing Children’s Narrative Microstructurally and Microstructurally: The Multilingual Assessment Instrument for Narratives (MAIN)

2.5.1 Introduction

As described in the above sub-section 2.3.3, many assessment instruments have

been designed, most of which are standardised for use with monolingual children and to facilitate the identification of developmental language disorders. These narrative assessment tools include one designed for bilingual children: the Multilingual Assessment Instrument for Narratives (the MAIN) (Gagarina et al., 2012). This tool is reviewed in this section for the following reasons. First, it is designed to assess the narrative production and comprehension in monolingual and bilingual children aged 3–12 years with and without DLD. The materials in the elicitation tasks are designed in parallel, which allows for comparisons between bilingual children’s two languages and avoids using the same materials twice. Second, it enables evaluation of narratives at both macrostructural and microstructural levels. The development of the tool was based on Stein and Glenn’s story grammar model (1979) and Westby’s story structural complexity decision theory (2012) to evaluate children’s narrative competences in terms of story structure components, story complexity, and story comprehension. The story structure components measured by the MAIN are (a) setting; (b) internal state term (IST) as initiating event; (c) goal; (d) attempt; (e) outcome; and (f) IST as reaction. For the microstructural components, the MAIN suggests a list of measures from three main aspects: narrative length and lexis; syntax complexity and discourse cohesion; and level of bilingualism (Gagarina et al., 2012, p. 58). In addition, internal state terms (IST) are also identified and classified into categories, such as (a) perceptual state terms (e.g., ‘saw’); (b) physiological state terms (e.g., ‘hungry’); (c) consciousness terms (e.g., ‘know’); (d) emotion terms (e.g., ‘sad’); (e) mental verbs (e.g., ‘want’); and (f) linguistic verbs/verbs of saying/telling. Finally, the MAIN has been validated and proven to be cross-linguistically and cross-culturally robust in over 15 different bilingual narratives and in the assessment of more than 500 children, including 250 bilinguals. It is also for these reasons, therefore, that the present study uses the MAIN to assess Mandarin-speaking children’s and bilingual English-Mandarin speaking children’s narrative production and comprehension. The methodological consideration and application of this tool will be described in detail in Chapter 4, while this section focuses on its application in relevant studies.

2.5.2 Studies Adopting the MAIN

The language effect on bilingual children’s narrative macrostructural production has been extensively researched in studies using the MAIN, but the results have been

inconsistent. Several studies (Altman et al., 2016; Bohnacker, 2016; Kunnari et al., 2016) have shown that narrative production in bilingual children is invariant between majority and minority languages, confirming prior findings (e.g., Akinci et al., 2001; Pearson, 2002; Fiestas & Peña, 2004). However, research utilising the MAIN has also identified disparities between bilingual children's majority and minority languages (e.g., Roch et al., 2016; Kapalková et al., 2016). This, together with similar findings from earlier studies (e.g., Gutiérrez-Clellen, 2002; Squires et al., 2014; Uccelli & Pérez, 2007) employing different evaluation methodologies, implies that no solid conclusions regarding bilinguals' performance in their two languages can be reached at this time.

Initially, during the validation phase of the MAIN as an evaluation instrument, research in this context was conducted primarily at the macrostructural level and with a focus on internal state terms production (e.g., Kunnari et al., 2016; Maviş et al., 2016; Gagarina, 2016), while a limited number of studies focused on microstructural development (e.g., Kapalková et al., 2016). These studies investigating the development of narrative skills in children with TD and DLD have focused on stimulus tasks effect, developmental differences, comparisons between bilingual children and their monolingual peers, and comparisons between sequential and simultaneous bilingual children.

At the methodological level, task effects have been examined. The MAIN contains three types of eliciting tasks, viz, the storytelling task, the story retelling task, and the model story task. The facilitating strength of the story retelling task in bilinguals' narrative production and comprehension has been examined by several studies on bilingual children with typical development (Bohnacker et al., 2020; Roch et al., 2016; Otwinowska et al., 2018). Otwinowska et al. (2018), for instance, compared the narratives in storytelling and story retelling tasks of 75 Polish-English bilinguals (M age = 5;7), finding that these bilinguals produced more story structure components, used more internal state terms and performed better when answering comprehension questions in both languages when retelling the story after listening to it first than telling the story straightforwardly. However, this task effect is not always evident in both languages of bilingual children, as Kunnari et al. (2016), examining the macrostructure production of 16 bilingual Finnish-Swedish children (M age = 5;8). The researchers found task effects in Finnish but not in Swedish and suggested that this difference may have been due to the fact that Swedish was the weaker language of the bilingual children in their study.

A significant age effect is also found in TD bilingual children's narrative performance, with older children (6–8 years old) generally outperforming younger children (3–6 years old) (Bohnacker, 2016; Maviş et al., 2016; Roch et al., 2016). However, this does not apply to all the macrostructural measures of both languages of bilingual children. For example, Maviş et al. (2016) investigated Turkish-German bilingual children's (2;11–7;11 years old) Turkish narrative development, finding a significant age effect only in the macrostructure complexity, although there was a moderate positive correlation between ages with the structural components and the structure complexity produced respectively, and a weak correlation with internal state terms production. The researchers attributed this to the selection of age groups. However, it could also be the result of the small number of subjects, especially in the older age group (n=8). In addition, Maviş et al. (2016) reported that some participating children attended monolingual (German) kindergartens or schools, while some younger children attended bilingual German-Turkish daycare centres. Thus, in the absence of German narrative data of these children, it is difficult to plausibly conclude that age only partially affects macrostructural complexity of bilingual children's narratives and to explain the reasons behind these findings. Bohnacker (2016), however, found a significant age effect in the macrostructural components production of 52 bilingual English-Swedish children (age 5–7) in both languages, but the structure complexity was not examined in their study.

School-age children have been less studied than pre-schoolers, and the influence of narrative training in the school curriculum has been observed. Gagarina (2016) compared Russian-German bilingual children's narratives in Russian and German in three groups of 45-month-old, first- and third-grade students and proposed the effect of school-based instruction in narrative skills on children's narrative production in Russian. With respect to their macrostructural components production, macrostructure complexity, and internal state terms, significant improvements in all three measures were found between pre-schoolers and first-grade bilingual children, but from first to third grade there was a significant development of only structural complexity in the Russian narratives. This was explained by the researcher as due to the Russian narrative training experience in schools of the two school-aged groups.

Other factors such as gender and L1-L2 differences have also been found in bilingual children's macrostructural production. Maviş et al.'s (2016) data for children from age 6–7 showed gender differences between boys and girls, in which girls

generally outperformed boys on macrostructural component production and comprehension. L1-L2 differences were found in Roch et al.'s study (2016) of bilingual Italian-English children aged 5–6 and 7–8 years, in which the younger group of children produced more macrostructural components and higher levels of macrostructural complexity in their L1 (Italian) than their L2 (English). However, children in the 7–8-year-old group performed comparably on both measures of narrative production in L1 and L2. Both age groups were tested using the Peabody Picture Vocabulary, and both were found to have higher language proficiency in Italian than in English. However, the researchers only associated the L1-L2 differences found in the younger group's narrative production with the imbalance in their language proficiency levels in L1 and L2. For the L1-L2 differences in the older group's language proficiency but not in their narrative production, the researchers used these findings to argue for the different developmental patterns between bilinguals' narrative skills and vocabulary. In this regard, the present researcher questions whether bilinguals' language proficiency in their two languages is related to the differences in macrostructure, which will be further investigated in this study.

Compared to the macrostructural components production and comprehension in general, the internal state terms production is much less studied in relevant research using the MAIN, and the results are inconsistent. For example, the results in Kunnari et al.'s (2016) and Otwinowska et al.'s (2018) studies showed no differences between bilingual children's two languages with regard to the frequency of IST produced in narratives. Roch et al., (2016), however, found that more ISTs are produced in bilingual children's narratives in Italian than in English. Considering the bilingual children in Roch et al.'s study (2016) were sequential bilinguals living in Italy and that these children had lower language proficiency in English than Italian, this result could be due to the L1-L2 difference in proficiency levels. In addition, regardless of the languages, the age effect was significant in the IST production of bilingual children in Roch et al.'s study (2016). In contrast to their findings, typically developing English-Hebrew pre-schoolers in Altman et al.'s study (2016) produced more ISTs in their L2 (Hebrew) than their L1 (English). They found a preference for categories of IST across bilingual children's two languages, with mental verbs being preferred in Hebrew and consciousness terms being produced more in English. One possible explanation for this was that use of mental verbs in Hebrew in pre-schools was a regular part of the daily schedule of these bilingual children. While the aforementioned studies on IST are few

in number, the available results provide more evidence of the complexity of bilingual children's narrative development, and it is too early to generalise about the production of IST in bilingual children. Apart from this, Altman et al.'s study (2016) further identified evidence of the potential influence of the school environment. Similar to the above mentioned Gagarina study (2016), their findings indicate the importance of considering the narrative activities/training for different languages in schools while investigating the narrative development of bilingual children.

To sum up, studies using the MAIN have primarily focused on validating it as an assessment tool for bilingual children with and without DLD. Most of the studies are confined to bilingual pre-schoolers and examine the effect of age on narrative development and task effects on narrative production. In addition to this, gender and L1-L2 differences of relevance to narrative development have also been identified in a few studies. Compared to the other macrostructural components, internal state terms have been studied to a lesser extent. Further studies are thereby needed on the production of internal state terms and different categories of these terms in bilingual children, and especially for Mandarin-speaking children, as culture may play an important role in narrative production (see further discussion of the reasons for this statement regarding cultural influences in Section 3.2.3). Moreover, few studies have included language environments outside of the home, although the bilingual pre-schoolers in most of the studies attend different types of kindergartens and daycares. School environments, especially narrative training, play a role in the narrative development of bilingual children, so more thorough research on school-aged children and school instruction is needed to understand the impact of school narrative training in different languages and cultures and to gain a comprehensive understanding of the development of these children's narrative skills. In addition, there are currently no data on English-Mandarin bilingual children as assessed by the MAIN. Thus, the extent to which the macrostructure of narrative is equivalent in production in both languages for bilingual children remains open to debate. In addition, it would be valuable to compare whether monolingual Mandarin-speaking children and English-Mandarin bilingual children develop narrative skills in parallel with their other monolingual and bilingual peers.

2.5.3 Comparative Research Studies on Children with and without DLD

As part of the original design of the MAIN, some studies using the MAIN have also focused on comparisons between children with and without DLD. While no definitive conclusions can be formed about macrostructural production between children with TD and DLD, a growing body of research in the field (e.g., Altman et al., 2016; Tsimpli et al., 2016; Simon-Cereijido et al., 2009) is applying macrostructural measures to the narrative production of children with DLD. This sub-section only provides a brief review of relevant studies, as the present study does not focus on monolingual Mandarin-speaking children or English-Mandarin bilingual children with DLD. However, as one of its aims, this study agrees that it is important to understand the narrative development of typically developing monolingual Mandarin-speaking children and English-Mandarin bilingual children before comparing DLD and non-DLD children from the same language background.

In regard to macrostructural measures as predictors to distinguish children with TD from those with DLD, different results have been found. Altman et al. (2016) assessed the macrostructure and microstructure of narratives produced in a story retelling task with 19 bilingual English-Hebrew pre-schoolers with TD and 12 pre-schoolers with DLD, focusing on the GAO episodes and mental state terms produced. No significant differences were found in the production of *Goal*, *Attempt*, and *Outcome*, nor the structural complexity between the English and Hebrew narratives of children with and without DLD, confirming the findings of other studies on bilingual children with and without DLD that also used the MAIN (Tsimpli et al., 2016) and other tools (e.g., the ‘Frog’ stories, Simon-Cereijido et al., 2009). In terms of the microstructural analysis, Altman et al. (2016) found that children with DLD perform significantly differently from children with TD regarding the MLUCmax (mean length of the three longest C-units), one of the measures of story length and lexical diversity in both languages.

However, there is a discrepancy between the findings of Altman et al. (2016) and other studies that used the MAIN (Boerma et al., 2016; Sheng et al., 2020) and other tools (Rezzonico et al., 2015; Govindarajan & Paradis, 2019), with other studies suggesting that macrostructural analysis is valid as a clinical marker of language impairment. Sheng et al.’s (2020) study, the only study to date adapting the MAIN in Mandarin, evaluated 42 monolingual pre-school children (M=5;6) with TD and at-risk

for DLD, finding that the TD group in their study showed significant differences from the at-risk group in the production of total macrostructure components, not just the GAO episodes. Sheng et al. (2020) concluded that, although full GAO episodes demonstrate children's ability to produce complete narrative structures, GAO scores alone are not sufficient to determine the differences between TD and DLD. Govindarajan and Paradis' study (2019) specifically compared the narrative produced in a storytelling task in L2 English by 24 bilingual pre-schoolers (M=5;8) with DLD and 63 counterparts without DLD, finding that children with DLD score significantly lower on total macrostructural components yet are similar to children without DLD at the microstructural level. As noted by Govindarajan and Paradis (2019), contradictory result in relevant studies may be due to differences in the age and language ability of the children being assessed. In sum, the assessment tools, narrative elicitation tasks, specific microstructural features, and macrostructural components measured in studies might influence the results of the TD-DLD differences.

In recent years, the comparison between Mandarin-speaking children with TD and DLD has gradually become a research focus (e.g., Zhang, 2013; Hao et al., 2018). These studies support the view that the narrative production of children with DLD is behind their TD peers in both macrostructure and microstructure. In addition, Hao et al. (2018) identify three Mandarin-specific microstructural measures, viz, the *Bei* structure, classifier, and perfective aspect marker (e.g., '*le/guo* ') (p. 12), where children with DLD show significantly differences from children with TD. Assessing children's narrative production, especially taking into account the language-specific features, has also been viewed as an important tool to identify children's language disorders.

2.6 Other Factors Influencing Children's Narrative Development

After discussing the elicitation and analysis of child-generated narratives, this section presents the factors that play significant roles in children's narrative development as they emerge from studies conducted in different research settings, using various narrative elicitation tasks and analysis methods. Sub-section 2.5.1 addresses the impact of interlocutors' narrative styles, while sub-section 2.5.2 focuses on the effect of school-based narrative instruction on children's narrative development. Language specificity, as well as cultural differences, have also been argued to influence children's narrative development (Wang & Leichtman, 2000). Thus, sub-sections 2.5.3 and 2.5.4,

deal with these three aspects respectively.

2.6.1 Input and Narrative Styles of Interlocutors

Quantity and quality of input has been highlighted as an important factor in the language development of monolingual and bilingual children (Gámez & Levine, 2013; Unsworth, 2016). In the family context, parents' narrative styles and the degree of elaboration in language socialisation activities are related to monolingual children's narrative development. Studies (Demir et al., 2015; Fivush et al., 2006; Peterson et al., 1999; Shin et al., 2020) have found that the longer the narrative, the more diverse the vocabulary, structures, and ways of questioning used; and the more detailed information described and decontextualised language used, the more parents' input is beneficial to the complexity of the child's developed narrative.

Studies comparing mothers' and fathers' input in parent-child conversations have yielded mixed results. It has been established that there are no differences between mother and father talks in terms of the amount of input and syntactic complexity, such as MLU (mean length of utterances) (Tamis-LeMonda et al., 2012; Pancsofar & Vernon-Feagans, 2006) and vocabulary complexity (Rowe et al., 2004). However, the narrative styles of input provided by mothers and fathers are thought to differ in terms of language socialisation practises, in which context research has focused more on the parents' language use. For example, Tamis-LeMonda et al. (2012) studied parent-child interactions in semi-structured game activities in 50 low-income families, finding significant differences only in regard to the greater number of descriptions and the fewer references to locations used by mothers (p. 425). Findings from other studies also indicate that fathers tend to use more wh-questions, requests for clarification, and action instructions in their talks compared to mothers (Rowe et al., 2004; Tamis-LeMonda et al., 2004). In contrast, more references, closed-ended questions, and attentional instructions are used in mother-child interactions (Ely et al., 2001; Tamis-LeMonda, 2004). Furthermore, mothers refer to emotions more frequently in internal state talk with their children and provide more causal explanations for emotions (LaBounty et al., 2008). In addition to parents, other interlocutors in the family contexts have been identified as playing complementary roles in the promotion of children's language development. For example, it has been found that children use mental state terms more frequently in their interactions with siblings and peers than with mothers (Brown et al.,

1996).

In addition to the home, school broadens children's language socialisation environment, in which peer and educator interactions with children provide rich input for children's narrative development (Hoff, 2006; Nicolopoulou, 2002; Nicolopoulou et al., 2014). For example, through their studies of fictional stories and story performance activities on the curriculum, Nicolopoulou and colleagues (1996, 2014) found that regular engagement in peer culture and participation in peer-oriented, teacher-assisted narrative practices promote the complexity and maturity of children's fictional narratives and facilitate children's oral language, narrative construction and contextualisation skills, and cognitive development, especially for those children from low-income families. However, school environments are complex and dynamic, and narrative activities in such environments are generally not directed or guided by a single person, especially for older children. Furthermore, in addition to adult-child and peer-child interactions being considered beneficial, explicit instructions on story grammar in educational settings have also been found to have a positive impact on children's narrative development, as will be reviewed in the next sub-section.

For bilingual children, similar to their monolingual counterparts, parents, siblings, peers, and other caregivers are their primary sources of dual language input in the home and social environment (Unsworth, 2016). Based on previous studies (Byers-Heinlein et al., 2010; Paradis & Genesee, 1996; Rowland, 2013) comparing the quantity of input for monolingual and bilingual children, a convincing conclusion can be reached that bilingual children tend to receive more reduced input than monolingual children, with the exception of De Houwer's study (2014). Although De Houwer (2018) has noted that 'the "reduced input" for bilingual children does not apply to all children' (p. 136), observing and measuring actual amount of input is relatively laborious work.

Furthermore, the results of studies exploring the relative input of two languages for bilingual children concerning their language development, particularly in school-aged children, have varied. Some studies (e.g., Gathercole et al., 2016; Jia & Fuse, 2007; Prevoo et al., 2014) have concluded that relative input is crucial to children's language development. For example, Mieszkowska et al. (2017) investigated the effect of relative input on bilingual and trilingual children's vocabulary development in their home language (Polish) and community language (English). Comparing English-Polish bilingual and trilingual children with their monolingual English- and Polish-speaking peers respectively, Mieszkowska et al.'s study (2017) found that the bilingual and

trilingual children's receptive and productive vocabulary in English did not differ significantly from their monolingual English-speaking peers. In contrast, the 'reduced' relative input of Polish for these children had a negative impact on the development of productive vocabulary in that language for the bilingual children, as well as on receptive and productive vocabulary in that language for the trilingual children. The results of this study suggest that while the community language vocabulary development of bilingual and trilingual children may benefit from extensive exposure to the community language outside the home, 'reduced' relative input to the home language may slow the vocabulary development in that language. However, others (e.g., Golberg et al., 2008; Rojas et al., 2016) have taken the opposite view. Additionally, some studies have subsequently argued that the quality of input, rather than the quantity of input, accounts for bilingual children's language development (Chondrogianni & Marinis, 2011; Paradis, 2011).

Regarding the quality of input for bilingual children, the length of utterances, vocabulary complexity, syntactic diversity, question variety, code-switching behaviour, mixed languages, and whether the input comes from native speakers are elements that has been argued to determine these children's language development (Bridges & Hoff, 2014; Byers-Heinlein, 2013; Cartmill et al., 2013; David & Wei, 2008; Driessen et al., 2002; Pancsofar & Vernon-Feagans, 2006; Ribot & Hoff, 2014). Siblings are an additional source of language input for bilingual children, and older siblings in particular may increase the majority of language input to the family (Barron-Hauwaert, 2011; Bridges & Hoff, 2014). In some cultures, such as Bangladeshi (Gregory, 1998) and Spanish (Bridges & Hoff, 2014), it is sometimes the older sibling who assumes the responsibility of caring for the younger child. As a result, older siblings may use one or multiple languages more frequently than their parents to interact and conduct literacy activities with their younger siblings, especially when the latter enter school (Barron-Hauwaert, 2011).

Bilingual children receive other major input sources on a daily basis, such as those from the community, schools, pre-schools, and day care centres, which tend to influence children's majority and minority language development, especially those in school. Research (Palermo et al., 2014) has also highlighted the impact of peer interactions and found that the exposure to the majority language in classrooms positively correlated with the vocabulary outcomes of that language of bilingual pre-schoolers. However, when bilingual children receive comparatively less support for the minority language

from the community and school, this tends to hinder the balanced development of their two languages (Jia & Fuse, 2007; Kohnert & Bates, 2002; Sheng et al., 2011), including their narrative production (Roch et al., 2016; Fiestas & Peña, 2004) (see also 2.5.4).

In conclusion, the social sources of input, along with family input sources, constitute the overall blueprint of bilingual children's dual language input. Thus, understanding the home and school environments of bilingual children, especially the similarities and differences in the bilingual narratives received at home and the those performed at school, can better explain the development of both languages in bilingual children. This will be further examined in the present study.

2.6.2 School-Based Narrative Instruction

In addition to the above mentioned peer and teacher-student interactions in the school environment, school-based instruction on narrative may also play a role on bilingual and monolingual children's narrative development. A few research studies utilising the MAIN (Gagarina, 2016; Altman et al., 2016) have found that school-based instruction improves bilingual children's narrative production, as reviewed in 2.4.2. However, the purpose of these studies is not to observe bilingual children's school-based narrative instruction in detail but rather to compare school-based narrative instruction in their two languages, in order to explain the differences in these bilinguals' narrative production identified in their two languages. For instance, Gagarina (2016) argued that the explicit teaching of GAO episodes in school-based instruction in Russian, but not in German, was associated with an increase in narrative complexity exclusively in Russian of the Russian-German bilingual first to third graders in her study. On the other hand, Altman et al. (2016) suggested that the frequent use of mental verbs in school-based instruction in Hebrew of the English-Hebrew bilingual pre-schoolers may account for their preference for using mental verbs in Hebrew narratives.

In regard to the monolinguals, relevant studies (Hayward & Schneider, 2000; Green & Klecan-Aker, 2012; Klecan-Aker & Gill, 2005; Nathanson et al., 2007; Gillam et al., 2018) have mainly investigated the impact of school-based narrative instruction, especially the explicit teaching of macrostructural components and narrative structure, on the narrative production of pre-schoolers and school-aged children with DLD. For example, Gillam et al. (2018) investigated the narrative production of four English-speaking children with DLD (6;7–10;4) who participated in an intervention programme

for story grammar, using a comparative pre- and post-intervention research design. They found that all the children produced a greater number of different words post-intervention, with three of the four children improving in macrostructural complexity, as evidenced by the production of more macrostructural components and embedded episodes. Similarly, Green and Klecan-Aker (2012) found that explicit story grammar teaching improved the production of macrostructural components and narrative complexity in 24 school-aged English-speaking children (6;3-9;6) with DLD during the programme of a narrative intervention of 13 weeks.

Despite the fact that the aforementioned studies have diverse foci, it is argued that school-based narrative instruction, particularly the explicit teaching of the story grammar components and structure of narratives, has a favourable impact on children's narrative development. Since bilingual children may receive uneven narrative training in their two languages, this study compares the narrative instruction given to English-Mandarin bilingual children in their two languages and investigates the impact it may have on their narrative production. Furthermore, since, to the best of my knowledge, no previous research has been focused on school-based narrative instruction for school-aged Chinese children and its impact on their narratives, this is one aspect that this study also intends to investigate.

2.6.3 Language Effect

Language specificities affect children's narrative development and, relatively speaking, have a greater impact on microstructure, such as productivity (e.g., Mäkinen et al., 2020), evaluative devices (e.g., Chang & McCable, 2013), character reference (e.g., Aksu-Koç & Nicolopoulou, 2015), and the use of connectives (e.g., Pit, 2007). On the macrostructural level, which is the focus of this study, it has been proposed that macrostructure of narratives is relatively independent across languages, as briefly discussed in 2.2.1.3.

For bilingual children, since story grammar knowledge can be transferred from one language to another, macrostructure is often found to be invariant and follows a similar developmental pattern with monolingual children (Akinci et al., 2001; Fiestas & Peña, 2004; Kunnari et al., 2016; Jia et al., 2010; Pearson 2002; Squires et al., 2014). However, studies have also highlighted the effect of language, arguing that the imbalance in proficiency level in bilinguals' two languages may result in differences in

various measures of their narrative production in two languages. For example, the Swedish-German bilingual children (4;0–6;11) in Lindgren's research (2018) produced more macrostructural components in total in Swedish than in German, and the researcher speculated that these bilinguals' better development of macrostructural production in Swedish than in German might be associated to their comparatively higher proficiency in Swedish. Kapalková et al. (2016) found that Slovak-English bilinguals aged 5–6 years produced less total macrostructural components and less *IST as Initiating Events*, *Outcomes*, and *IST as Reactions* in Slovak. Similarly, the researchers attributed these identified differences to these bilinguals' lower English proficiency, which they attributed to their limited exposure to English (12 months or more) compared to Slovak. Similarly, as reviewed in sub-section 2.4.2, Roch et al. (2016) examined the narrative production of 5–6-year-old English-Italian bilingual children. The researchers correlated their findings on the advantage of Italian over English in terms of the total number of macrostructural components and the level of complexity produced by these bilinguals with the imbalance between the language proficiency in Italian and English of these bilinguals.

In conclusion, while the macrostructure of bilingual narratives is thought to be independent of language specificity, the imbalance between bilingual children's two language proficiency levels may still result in differences in their narratives across their two languages. This is an aspect of the topic that this study intends to investigate further in relation to English-Mandarin bilingual children.

2.6.4 Cultural Influence

In addition to language specificity, cultural contexts might also influence children's narrative development. Intrinsically, it is impossible to draw a line between the cross-language and cross-cultural influences because the interaction between language and culture is bi-directional, as language both shapes and is shaped by culture (Armour-Thomas & Gopaul-McNicol, 1998). As discussed in Chapter 1, the cultural values shared by a given population group guide the decisions of that particular group to adopt certain behaviours in a given context. In the case of children, they acquire cultural knowledge and culturally acceptable patterns of behaviour, including narrative production patterns, through socialisation with other interlocutors in the given community. Since the family is the primary context for children's socialisation, research

in the field tends to suggest that the style and content of scaffolding in language socialisation is influenced by the cultural values of different communities, the combination of which in turn plays an important role in children's narrative development (Fivush et al., 2006).

Comparative studies (Song et al., 2018; Minami, 2002; Leichtman et al., 2003) of parent-child interactions in Asian and Western cultures classify these differences as 'independence' and 'interdependence'. Some Asian cultures emphasise interdependence features, such as greater emphasis on authority, harmonious social and interpersonal relationships, and appropriate social behaviours, leading to a low elaborative narrative elicitation style by parents, who provide more instructions and require less evaluation and description from children. In contrast, the independence orientation of Western cultures typically manifests as a higher elaborative narrative elicitation style, with parents scaffolding more interactions about past experiences, emphasising personal feelings and asking more open-ended questions (Wang & Leichtman, 2000). Minami's comparative study (2002) of the culturally specific narrative styles of Japanese- and English-speaking mothers confirms these independence and interdependence orientations. The comparison was made between (a) 4-year-old children's interactions with 10 Japanese-speaking mothers living in Japan and ten English-speaking mothers living in the United States; and (b) 5-year-old children's interactions with ten Japanese-speaking mothers living in Japan and 8 Japanese-speaking mothers living in the United States. By analysing the mother's elicitation patterns and the children's narratives during the interaction, he found that in his study, compared to English-speaking mothers in North America, Japanese-speaking mothers living in Japan used more attention-getting devices in their interactions, such as *ne* (*you know, isn't it?*) and the listener's verbal acknowledgment, such as *un* (*uh huh*, indicating *yes*) (p. 234) as a response to the *ne*. An example illustrated in Minami's study (2002) was a conversation between a child, Sachi, and her mother.

'Sachi: datte sensei ne,

"because the teacher, you know,"

(Mother: un)

"uh huh" (p. 168)

This difference resulted in fewer permissible monologic narratives for children, which in turn manifested in fewer utterances produced by the Japanese children living in Japan in the study. Minami also compared the Japanese-speaking mothers living in

Japan with Japanese-speaking mothers living in North America, finding that bilingual Japanese mothers were more consistent than their counterparts living in Japan in their use of attention-getting devices and verbal acknowledgements. The researcher interpreted the more co-constructive narrative style in Japanese domestic or overseas communities as resulting from Japanese culture's emphasis on empathy (*omoiyari*) and its relative lack of emphasis on independence.

The cultural difference between interdependence and independence has also been discussed in other studies (e.g., Han et al., 1998; Koh & Wang, 2013) in mother-child narrative conversations in some Asian and Western families in terms of the cultural diversity involved in emphasising the 'self' in relation to others and in regard to its social roles. Compared to European or American mothers, Asian mothers (e.g., Japanese, Korean, and Chinese) are less likely to engage in narrative conversations with their children about their personal past experiences at an early age (Minami & McCabe, 1995; Mullen & Yi, 1995; Wang et al., 2010). This may be due to the fact that in some Asian cultures (e.g., Japanese, Korean, and Chinese), children are not encouraged to actively participate in dialogues with adults by contributing their own experiences and thoughts (Choi, 1992). As reflected in Asian children's narrative production, they refer to themselves less frequently, and, even when they do, they tend to locate the 'self' more in the social contexts (Wang, 2004).

Individuals who grow up or live with two or more languages are frequently socialised in two or more cultural contexts simultaneously (Benet-Martínez et al., 2002; LaFromboise et al., 1993). It has been argued that the narrative elicitation styles of parents in bilingual contexts undergoes the influence of both cultures. For example, again in Minami's study (2002), Japanese mothers living in the United States were reported to employ narrative induction styles similar to those of local English-speaking mothers, such as eliciting and requesting more descriptive information from their children, unlike Japanese mothers living in Japan. However, Japanese mothers living in the United States provided fewer evaluations compared to North American mothers, which was similar to their domestic counterparts. This suggests that Japanese mothers in the United States adhere to both the cultural values of independence and interdependence when socialising their children.

Therefore, bilingual children who grow up in this complex cultural environment acquire not only knowledge of two languages but also the cognitive patterns and values of two cultures. However, research on bilingual children's narrative production (e.g.,

Bohnacker, 2016; Pearson, 2002; Roch et al., 2016) has mainly focused on bilingual children's structural knowledge of shared narratives in both languages, and cultural influences often remain understudied at the general macrostructural level. Thus, more research is needed in order to further investigate the interrelation between parent-child socialisation practices with child narrative production under the influence of the broader external cultural environment. Since this study focuses on Mandarin- and Mandarin-English-speaking children, the cultural influence of bilingual children's narrative production will be further examined in this dissertation, with special reference to such specific Chinese cultural influences as moral and introspective orientations, restrained emotional expression, and variations in gender expectations (see 3.2.3)

2.6 Chapter Summary

This chapter reviews the general framework for eliciting, collecting, and analysing children's narrative development, as well as the factors that have been argued to have an impact on children's narrative development. Based on the literature reviewed in this chapter, the present study has chosen to adopt the Stein and Glenn's story grammar model (1979) and the Multilingual Assessment Instrument for Narratives (the MAIN) (Gagarina et al., 2012) to evaluate school-aged monolingual Mandarin-speaking children and English-Mandarin bilingual children's narratives. Compared to personal narratives produced by pre-schoolers, school-aged children are more cognitively capable of producing fictional narratives that contain sufficient information, reflecting the possible influence of school-based narrative instruction, language proficiency, and culture on their narrative development. In the next chapter, a comprehensive review of studies focusing on the narrative development of Mandarin-speaking monolingual and English-Mandarin bilingual children and on the influence of culture is presented.

Chapter 3

Research Studies on Mandarin-speaking children's Narrative Development

3.1 Introduction

This chapter provides an overview of the narrative development of Mandarin-speaking children, including both the monolingual Mandarin-speaking children and bilingual English-Mandarin children, and focuses on the influence of culture and home language socialisation on their narrative development. Section 3.2 reviews the narrative development of Mandarin-speaking children and is divided into three sub-sections. 3.2.1 focuses on the studies of monolingual Mandarin-speaking children, while 3.2.2 deals with the similarities and differences in narrative production found in comparative studies of monolingual Mandarin- and English-speaking children. In sub-section 3.2.3, the influence of Chinese cultural values, namely moral and introspective orientations (3.2.3.1), restrained emotional expression (3.2.3.2), and variations in relation to gender expectations (3.2.3.3) on children's language socialisation practices, which in turn was seen to influence children's narrative development, is reviewed. Next, Section 3.3 describes the narrative development of bilingual English-Mandarin children and outlines the characteristics of biculturalism. Finally, Section 3.4 provides a summary of this chapter.

3.2 Monolingual Mandarin-speaking Children's Narrative Development

3.2.1 Research Studies on Monolingual Mandarin-speaking Children's Narrative Development

Most of the research studies on monolingual Mandarin-speaking children's narratives have been carried out with children within the comparatively small age range of 3–6;6 years. Almost all of these studies are conducted from a developmental standpoint and find a clear age effect. In the studies reviewed below, first, older children are generally able to produce more complex narratives at both macrostructural and microstructural levels, while the younger age group (up to 5 years) seems to neither be

able to produce narrative with a complete structure containing all the macrostructural components needed to constitute it, nor to integrate the cultural influences and manifest them explicitly in their narratives. Second, Labov and Waletzky's story grammar model (1967) has been adopted in the majority of relevant studies for macrostructural analysis of narratives elicited by using different materials and dissimilar assessment tools. Consequently, there is variation in the results of different studies.

The research on monolingual Mandarin-speaking children's narrative production can be traced back to the 1980s. Wu et al. (1984) assessed the storytelling and story retelling abilities of 8 Chinese children with TD, aged 2–6;6 years. In their study, the age effect made evident that the older the children were, the clearer were the relationships between characters and between events, and the more behaviours and internal states of the characters they were able to produce. In the study, Chinese children's ability to express internal states emerged at age 3 and then gradually developed. While Wu et al. (1984) analysed Chinese children's fictional narratives, Shi (1986) subsequently conducted a large-scale investigation of personal narrative production of 485 children aged 3–7 with TD. These children were asked to observe monkeys in a zoo and narrate their observations the next day. In her study, the analysis focused on the vocabulary children produced, finding that the total number of different words, the length of sentences (measured by the number of words contained in them), and the richness of content (measured by the descriptions of behaviours and appearances of characters) in these children's narratives increased with age.

However, the flaws in the early research are manifest. In terms of methodology, Wu et al. (1984) used the same material six to seven times in their longitudinal study in both storytelling and story retelling tasks for every child. Moreover, they asked children to retell the same story immediately after completing a storytelling task and did not provide a model, finding no significant task effect on children's narrative production. Shi's research also did not explicitly indicate how or if the teacher's or caregiver's narratives were controlled during the observation activities. Both studies focused more on the description of characters' behaviours and the temporal and/or causal relations between these behaviours, but there was no systematic comparison of the temporal and causal devices used across age groups. Having said that, the early studies were not without their merits. If we consider the narrative data presented in Wu et al. (1984)'s study, it can be pointed out that the data contained verbal judgments about the moral correctness of characters' behaviours; for example, in defining the behaviour of an older

character competing with a younger character for a rope as ‘incorrect’. However, the researchers did not discuss this in the context of Chinese cultural influences. Furthermore Wu et al.’s study (1984) did not mention whether these expressions containing moral judgements were commonly produced by older children (e.g. 6-year-olds). In conclusion, earlier studies focused on descriptions of characters’ behaviours and the production of temporal and causal relationships between behaviours in narratives produced by Mandarin-speaking children. Despite flaws in research methodology and data analysis methods, the effect of age was evident. However, the data in these previous studies were not fully analysed in the context of Chinese cultural influences, which the present study intends to examine (see also, sub-section 3.2.3).

Further studies of TD monolingual Mandarin-speaking children’s narrative development have emerged in recent years, with the adoption of the story grammar model and analysis (mainly Labov & Waletzky, 1967) in their methodology, coupled with a focus on pre-schoolers. Related studies of fictional and personal narratives have come to the similar conclusion that monolingual Mandarin-speaking children’s narrative competences develop with age yet vary in their developmental patterns between ages and at the individual level. For instance, Chang (2004) conducted a longitudinal observation of the personal narrative production of 16 Mandarin-speaking children (age 3;6) in Taiwan within a comparatively short 9-month period. Labov and Waletzky’s story grammar model (1967) was here adopted, and the analysis incorporated the production of narrative clauses and the use of ten types of evaluative devices, such as expressions of internal state terms, intentions, and compulsions, in addition to intensifiers or delimiters (for a full list, see Chang, 2004, p. 87); and temporal markers such as temporal connectives, causal connectives, sequential connectives, and aspectual expressions (*ibid*, p. 88). The results suggested that Mandarin-speaking children produced more total number of macrostructural components, evaluative devices, and temporal markers over time, indicating that their narrative abilities developed as they grew. However, the rate of their narrative development was irregular. These children progressed rapidly from 3;6 to 3;9 years of age and then more slowly from 3;9 to 4;0 years of age, but they produced fewer narrative clauses while maintaining the same level of production of evaluative devices from 3;9 to 4;3 years of age. The researcher attributed the children’s varying developmental rates between the ages of 3;9–4;0 and 4;0–4;3 to the comparatively reduced narratives collected in the last two interviews, due to the distraction of these

children's siblings and/or cousins. Moreover, the internal state terms production, which is of interest to the present study, was not analysed in detail in Chang's study (2004). She only categorised the expression of internal emotions and cognitive and physical states as a subtype of the evaluative devices and analyses the production of the total number of evaluative devices consisting of all subtypes with age. Furthermore, Chang (2004) identified no expression in the data as indicating Chinese cultural influences and concludes that the children in her study were too young to internalise the specific cultural patterns of narrative (if any) – not only from the family but also the social environment to which they were exposed.

Apart from macrostructural analysis, an age effect is also evident in the microstructure of the narrative of Chinese children. For instance, Liu et al. (2017) used the Index of Narrative Microstructure (INMIS) (Justice et al., 2006) to evaluate 81 pre-schoolers (3–5 years old) with TD regarding their production of macrostructural components, storytelling conventions, sentence and structure, verb and modifiers, and noun and modifiers (p. 93). Their findings showed that as children grew older, their narrative competences developed in all measures, with more macrostructural components produced, improved syntactic and vocabulary complexity, increased story length and connective devices between sentences, and the appearance of subordinate clauses. The results of their study also suggested that children gradually developed complex sentences such as compound sentences, *Ba* sentences, and quoted sentences in their storytelling. In terms of storytelling conventions, few rhetorical devices, such as onomatopoeia and metaphors, were used in children's narrative. In addition, children's use of nouns and modifiers appeared earlier than verbs and modifiers.

Although the effect of age appears to be uncontroversial in relevant studies, when comparing the narrative production of the same age groups in different studies on Chinese pre-schoolers, the results are mixed. For instance, Zhang (2007) adopted Labov and Waletzky's story grammar model (1967) and evaluated the production of macrostructural components and temporal relations of events in fictional narratives of 61 3–6-year-old pre-schoolers. She found that it was difficult for younger children in her study to narrate the beginning (orientation) and the climax (resolution) of the stories. Moreover, younger children tended to lose sight of the main events and narrated more about unimportant events. Similarly, in Zhang et al.'s (2019) study of 80 Mandarin-speaking children aged 3–6 years that utilised the same story grammar model for analysis, the most frequent structure produced by the children in their personal

narratives evolved from a two-events sequence (aged 3) to a chronological structure (aged 4 to 6). They also found that at age 6, the oldest age group in their study, the structural component resolution seemed to be lacking in the children's production, indicating that this age group was not able to produce the complete narrative patterns. However, the 5–6-year-old group in Min and Liu's study (2012) did narrate complete structures in their fictional narratives, which contradicts Zhang et al.'s (2019) results. Moreover, Wang (2017) also argued that a 5–6-year-olds in her study had the ability to produce narrative with fewer mistakes that showed the climax of the story compared to younger children.

The different results of the above studies might be attributed to the following two factors. The first potential reason is that children's production is unstable at this stage, as their narrative abilities develop rapidly (Berman & Slobin, 1994; Roch et al., 2016), and they only begin to construct complete narrative structure (Min & Liu, 2007). A further reason may also be the different eliciting tasks, which are the personal stories collected by Zhang et al. (2019), and fictional narratives collected by Min and Liu (2007) and Wang (2017). Although it is difficult to adjudicate these potential reasons, the differences between these studies further corroborate the unstable narrative production of younger children and the risk of leaving out information relating to the eliciting of personal narratives in research, as mentioned in Chapter 2. In other words, with the use of pictures, older Chinese children are more likely to produce narratives with more structural components.

In addition to the different type of narratives elicited, the relevant studies also use a variety of stories, including Chinese stories (e.g., Gao, 2013; Li et al., 2006; Min & Liu, 2007; Zhou, 2018). In regard to materials containing various levels of complexity, pre-schoolers tend to exhibit different performances in terms of narrative production. For instance, Li et al. (2006) used six different single-picture materials in elicitation tasks to evaluate 120 children aged 3–6 years old, concluding that, regardless of age, children performed better in macrostructural complexity when the pictures contain more straightforward stories and fewer events and relationships that needed to be inferred and connected. On the other hand, in comparing materials containing a single picture and series of pictures, the findings in Min and Liu's study (2007) from the same age groups suggested that picture series were more appropriate for assessing children over the age of 5, for the reason that 3–4-year-olds tended to focus mainly on describing single events, even when they were given a picture series. In addition to the Chinese

stories used, the extensively validated elicitation material, the *Frog, Where Are You?* Story, has also been applied in relevant studies of Mandarin-speaking children (Zhang, 2007; Zhou & Zhang, 2010; Wang, 2017).

These differences synthesised in the literature reviewed above all suggest that while monolingual Mandarin-speaking pre-schoolers' narratives tend to develop toward completeness as they get older, comparisons across studies at the same age vary considerably. The different types of narrative elicited, as well as the distinct narrative tasks and task materials, might account for these differences. In terms of the potential cultural influences, however, uncertainty remains about the ability of pre-schoolers to consistently and stably express complete narratives and narratives that reflect cultural differences (Chang, 2004). Therefore, more studies on the narrative development of older age groups of monolingual Mandarin children are needed to (a) refine the general trend in the narrative development of monolingual Mandarin children; and (b) verify whether school-aged children are capable of expressing narratives that are under the influences of relevant cultural values and, if so, whether cultural influences are more consistently reflected in school-aged children's narratives.

3.2.2 Comparative Research Studies on Monolingual Mandarin- and English-speaking Children's Narrative

Although there has been an increasing number of comparative studies on the narrative development of children from different language backgrounds in recent years, a limited number has been conducted to compare English and Mandarin narratives. Among those studies (Broke & Su, 1972; Domino & Hannah, 1987; Gao, 2013; Wang & Leichtman, 2000; Chang & McCabe, 2013), comparisons have been made primarily between monolingual Mandarin-speaking children and their English-speaking counterparts in the United States, with more attention to personal narrative and emotional expression. The findings of these studies vary depending on the year of the study, the diverse elicitation methods, and the focus of the analysis, but all make reference, to a greater or lesser extent, to the use of cultural influences to explain the differences in children's narrative production.

For example, Gao (2013) used the Chinese story *Ant and Watermelon* in the story retelling task to evaluate the narratives of 90 Chinese children aged 3–5 years. This is one of the few studies that adopted Stein and Glenn's story grammar model (1979) and

focused on macrostructural components and macrostructural complexity, in which the researcher found that only 22.8% of the 5-year-olds clearly articulated the complete Goal-Attempt-Outcome structure, which was considerably lower than the results obtained by Ilgaz and Aksu-koc (2005) from Turkish-speaking children (90%). In Gao's study (2013), the proportion of abbreviated episodes that did not explicitly mention the character's goal also increased with age. This finding contrasts with Peterson and McCabe's (1983) findings for English-speaking children, which show that the proportion of abbreviated episodes declined with age. Gao (2013) speculated that the reason for these discrepancies is that Chinese children aged 3–5 years did not feel the need to specify the character's goal. Gao further interpreted this as an effect of cultural differences, simply because the participants in her study came from a different cultural background than the other studies. While this explanation may initially appear plausible, Gao did not elaborate on exactly which cultural values led to these differences, nor did she take into account influences from the children's home and school environments. Furthermore, as Gao's study was conducted with pre-school children and did not include older children as a control group, it is not possible to determine whether this finding is stage-specific and whether Chinese children's ability to express goals will be refined gradually with age. The plausibility of this interpretation is therefore open to question. This study will thus examine the association of Gao's findings (2013) with the influence of a specific cultural value, namely moral and introspective orientations (see 3.2.3.1). It will focus on school-aged children and the production of their narrative macrostructures, particularly the GAO episode, which will further examine the influence of culture.

In contrast to Gao's (2013) focus, most other studies comparing Mandarin-speaking children with their English-speaking peers have focused on evaluation devices, especially emotional expressions. Wang and Leichtman's study (2000), the first of others, directly compared specific emotional expressions produced by 26 Chinese and 24 American children aged 6 years, as well as the content of their narratives. A story completion task was incorporated in the research, in which the children were asked to complete 11 stories with emotion-orientated scenarios first. After completing the stories, the children were asked to relate personal experiences of seven emotional themes. The specific emotional concepts assessed in the study were 'disgusted', 'ashamed', 'scared', 'angry', 'guilty', 'happy', and 'sad'. Relative to their American counterparts, the Chinese children in Wang and Leichtman's study (2000) tended to produce more

emotional expressions in general, especially positive expressions in fictional narratives. Furthermore, they also produced more internal state terms about themselves in their personal narratives. Surprisingly, on the one hand, Wang and Leichtman's (2000) findings contradict the general hypothesis that Chinese children produce fewer emotions, a hypothesis based on studies (e.g., Chao, 1995; Wu, 1996; Wang, 2001) that have found a tendency in Chinese parents to discourage the expression of emotions. On the other hand, they contradict findings from other studies that support the view that Chinese children do not express their feelings more than their English-speaking peers. For instance, Chang and McCabe's study (2013), which compared 3–9-year-old Mandarin-speaking children's evaluation in their personal narratives with American peers, found that Chinese children paid less attention to what they felt in past experiences. Moreover, in an earlier study (Broke & Su, 1972), no significant differences was found in expressions of happy feelings between Chinese and American children.

The unexpected result of 6-year-old Chinese children expressing more emotions in their narratives suggested that they might have a greater sensitivity to both their own and other people's emotions than their American peers (Wang & Leichtman, 2000). A further reason for this proposed by the researchers was that the children were able to express themselves relatively freely with the interviewers. The data collection for their study was conducted in a kindergarten setting without parental involvement. However, it was not clear in the study that in what capacity the interviewers were introduced to the participants, as teachers or teaching assistants could also be considered as a form of authority and might influence children's narrative production. In addition, it is important to note that the sample for this study was relatively small and that the parents of the participating children were all highly educated, each with a college degree or higher. Therefore, whether the finding that more emotional expressions in personal and fictional narratives can be generatively applied to Chinese children is open to debate. In addition, Wang and Leichtman's study (2000) did not take into account the parental narrative styles of the Chinese children in their study. If this were analysed, it would seem that the reasons for the inconsistency between Chinese children's emotional expressions and traditional Chinese values, as well as the findings of other studies mentioned above, could be more fully explored. This is one of the objectives of this study.

Apart from emotional expressions, Chinese children in Wang and Leichtman's

(2000) also provided more information about characters in the stories, focused more on group interactions and produced positive endings to stories more frequently in both their personal and fictional narratives, compared to their American peers. These findings indicated that these Chinese children tend to produce more concrete stories and show a greater orientation to social engagement. A similar difference of content concreteness was also found in Zhang's (2012) comparison between the fictional stories produced by Mandarin- and English-speaking children at 3–5 years old.

Moreover, Wang and Leichtman (2000) argued that, in contrast with American children, Chinese children's personal narratives were seen to more closely reflect the moral standards of Chinese culture and obedience to authority, and to contain fewer expressions of autonomy and self-determination. The researchers took the view that these differences were further evidence of the differences between Chinese and American culture, mirroring the interdependence value and deemphasis of the concept of a 'sense of self' in Chinese culture. In other words, the narrative expressions of the 6-year-old children in Wang and Leichtman's study were already able to produce the expressions expected by different cultural values. However, narrative construction was not the focus of their study, whose assessment of internal state terms was limited to certain emotional categories. As discussed in Chapter 2, emotion is a type of internal state and plays the role of *Reaction* in narrative structure. Therefore, the present study intends to further examine the aforementioned differences in Chinese children's emotional expression in light of its role in narrative structure. It also aims to examine the association of Chinese children's emotion expressions and their parents' narrative styles, and verify whether the differences noted in the previous literature regarding the discouragement of emotional expressions is still rooted in parent's contemporary narrative styles. Furthermore, the present study will focus on the expression of characters' goals in Chinese children's narratives to examine whether the findings in Gao(2013) are simply a developmental difference or result from cultural variations.

3.2.3 The Influence of Chinese Culture on the Language Socialisation of Mandarin-speaking Monolingual Children

As discussed in the previous sub-section, differences reflected in Mandarin- and English-speaking children's narrative are influenced by the differences between Chinese and Western cultural values, or more precisely American culture, manifesting

as broad cultural interdependence and independence differences (Wang & Leichtman, 2000; Song et al., 2018). These can be further associated with the differences in parental narratives and practices regarding child socialisation. Due to the scale of the present study, in further elaborating on the impact of culture on children's narrative production, particularly the impact of Chinese culture, this sub-section focuses on three main segmented dimensions, namely, moral and introspective orientations, restrained emotional expression, and variations in gender expectations, and simultaneously examines their impact on parental narrative practices in child socialisation.

3.2.3.1 Moral and Introspective Orientations

Morality is valued in Chinese culture by Confucian thought, as social harmony is the highest desire at both individual and societal levels, while self-reflection or introspection (*fan shen*; 反身) (p. 35) is one of the techniques used to help individuals to cultivate morality (Chen, 2017). In other words, individuals achieve moral behaviours through continuous introspection.

Chinese children's language socialisation comes to mirror the cultural value of emphasising a sense of morality. First, compared to Western stories, Chinese stories tend to introduce more societal norms and societally acceptable behaviours (Wang & Leichtman, 2000). Furthermore, Chinese children are encouraged to learn from the socially accepted standards in the stories and to apply them as references in their lives to regulate their own words and behaviours (Liao, 2017). Second, compared to Western parents, Chinese parents tend to remind children of their misbehaviours more frequently in order to introduce more societal norms and societally acceptable behaviours in parents' narrative practices (Koh & Wang, 2013). An example is provided in Koh and Wang's study (2013), in which a mother asked her child to recall his misbehaviours when visiting his aunt during the day. The child's negative behaviours, including 'refusing to go in the house', 'refusing to play with his cousin', 'not closing the door properly', and 'not saying bye-bye when leaving' were highlighted in detail as socially inappropriate by both parents (p. 22). At the conclusion of the conversation, the child was instructed not to repeat such socially inappropriate activities in the future. Other misbehaviours like 'being rude', 'hitting or pushing others', and 'crying at home or in public when needs are dissatisfied' (p. 22), in addition to social rules like 'being polite to others' when conflicts appear, tended to be more emphasised by Chinese parents than

American parents in their study.

In parent-child conversations, Chinese children are expected to use introspection to focus attention on their misbehaviours. Typically, they are asked to recall their misbehaviours through questions like '[D]id you tell Papa what you did wrong today?' (Koh & Wang, 2013, p. 22). However, the wrongness of children's behaviours tends to be more discussed than the reasons. In Chinese family education, when communicating with children, parents tend to value pointing out and correcting misbehaviours more than discussing with children what the latter want and why they do certain things (Bao, 2011). Thus, children are expected to be able to self-evaluate and then become aware of whether their behaviours meet social standards. Similarly, in primary school education in China, according to Yu's analysis (2014) of teachers' ways of dealing with pupils' problematic behaviours, it is stressed that unacceptable behaviour is not only discouraged in classrooms but also generally stopped immediately and 'forcibly without asking reasons' (p. 22).

Based on moral and introspective orientations valued in Chinese culture and the emphasis on the moral correctness of behaviours, it is hypothesised that children may pay more attention to people's 'right' or 'wrong' behaviours. Moreover, they may also consider that the 'reasons' for these behaviours to be less important. Manifested in Chinese children's narratives, they may focus on the expression of the morality of behaviours while lacking the expression of the 'initiating events' or 'goals', which this study is committed to examine.

3.2.3.2 Restrained Emotion Expression Orientation

In Chinese culture, individuality or individual emotional expression is comparatively less encouraged when conflicts appear. In the context of conflict, the importance of social harmony is therefore apt to exceed individuality. In order to maintain harmony, individuals tend to be expected to sacrifice the expression of their own emotions to some extent, as emotions, especially negative emotions, are considered to be harmful to harmony in ongoing relations (Bond, 1991). When the expression of emotion is encouraged, this is therefore expected to serve social engagement and be beneficial to social affiliation. However, it has also been argued (Dyer, 1975; Bond, 1991; Wang & Leichtman, 2000) that Chinese culture tends to emphasise the importance of being sensitive to, and correctly perceiving, other people's

emotions. Even though individuals are sometimes expected to restrain their own emotions, they should be capable of perceiving the emotions of others correctly without being told directly.

Chinese children's ability to express emotions is developed under the sway of Chinese cultural expectations. In the family environment, Chinese parents' approaches to children's emotional expression is in line with traditional Chinese values in regard to emotions. It has been found that Chinese parents tend to be less concerned about Chinese children's personal feelings when talking about past emotional experiences and focus more on describing their behaviours and emphasise more on social norms (Wang & Fivush, 2005). An emotionally critical approach is usually adopted in child-rearing (Bond, 1991; Wang, 2001; Wang et al., 2010). Moreover, Wang et al. (2010) found that in their study, Chinese mothers discussed internal states with children remarkably little in out-of-context conversations about past events compared to American mothers. In contrast, in American culture, which is represented the most in comparative research studies with Chinese culture (Chao, 1995; Wang & Fivush, 2005), children are provided with rich explanations of their emotions, and the understanding and articulation of one's own emotions is viewed as crucial to children having their own needs met in the future.

However, based on the literature review in sub-section 3.2.2, there is no clear conclusion as to the extent to which Chinese parents' lack of attention to their children's emotional expression in their narrative styles hinders the latter's emotional expression or whether it has any impact on such. This study aims to further investigate the association between the two factors.

3.2.3.3 Variations in Relation to Gender Expectations

An ancient Chinese saying runs '*Males lead outside, females lead inside*'. In other words, women are traditionally viewed as being naturally predisposed to dealing with domestic matters and supporting the family and their husbands, while men are supposed to deal with matters outside of the family. This traditional aspect of Chinese cultural ideology continues to have an impact on modern Chinese society in the forms of certain behavioural stereotypes applied to women and men. For example, early research on Chinese boys' and girls' gendered behaviours conducted by Keyes (1983) found that the character terms that were expected to belong to boys and girls were subject to gender distinction. Whereas boys' character terms consist of 'active', 'ambitious', 'brave',

‘career-minded’. And ‘persevering’, those of girls include ‘kind’, ‘appropriate’, ‘sensitive to others’ needs’, ‘generous’, and ‘presentable’ (p. 857). Moreover, these gender-typical differences tend to be reinforced by the school and social environments .

Earlier research (Cheung, 1996) has argued that different gender expectations and stereotypes exist in children’s socialisation practices in China and Chinese culture. Chinese parents tend to promote different socialisation strategies for sons and daughters, especially in conversations regarding emotions. According to Wang (2001), Chinese parents tend to refer more to daughters and provide more explanations of the causes of their daughters’ internal emotional states. This difference has been found to be reflected in Chinese children’s narratives. Wang and Leichtman (2000) found that the Chinese girls in their study tended to directly express more positive emotions than boys in personal narratives yet engage in less self-judgement and fewer self-evaluations. However, expressions of internal states not limited to emotions have not been well studied in Chinese children’s narratives. Furthermore, whether these gender differences can be verified in the Chinese children’s fictional narrative production also needs further discussion, as this requires the ability to be sensitive to as well as interpreting the internal states of others.

Although it has been argued that the aforementioned gender differences are common in Chinese culture and therefore guide the socialisation of parent-child language, thus influencing children’s narrative development, they are not unique only to Chinese culture. Research conducted on Euro-American populations (Adams et al., 1995; Fivush et al., 2000; Fivush & Buckner, 2003) has also found that parents discuss both negative and positive emotions more with daughters than sons, and their conversations about emotions with their daughters tend to be more sophisticated and use more diverse vocabulary. Moreover, there is a debate as to whether the above differences remain significant in the modern Chinese context. On the one hand, some studies (e.g., Hu & Scott, 2016) have argued that traditional family and gender values remain rooted in contemporary China and depend on individual contexts. On the one hand, however, it has been noted that these are overstated in the contemporary context due to the opening-up of China and interaction of Chinese culture with Western cultures. For example, some scholars (Cheung & Kwan, 2009; Shek, 2006) have argued that the different gender expectations under traditional Chinese values have faded to a certain degree under the social and economic influence of national policies such as the one-child policy (1949–2015), economic development, and globalisation. Consequently,

whether the influence of gender-stereotyped ideologies is still considered to have an impact on children's socialisation, behavioural patterns and emotional expressions need to be further verified. Thus, more studies are needed to investigate whether the variations in gender expectations, especially in emotion expressions, are still rooted in contemporary Chinese parent-child socialisation practices, which in turn enhance gender differences in Chinese children's narrative production. This investigation is therefore one of the objectives of this study.

3.3 Bilingual English-Mandarin-speaking Children's Narrative Development

3.3.1 Research Studies on Bilingual English-Mandarin Children's Narrative

A limited number of studies of narrative development has been conducted on English-Mandarin bilingual children, with a special focus on the production referencing and evaluative devices in narratives (e.g. Chen & Yan, 2011; Chen & Pan, 2009). In these studies (Chen & Yan, 2011; Chen & Pan, 2009; Jia & Paradis, 2015), a comparison is usually made between the English narratives of English-Mandarin bilingual children and their monolingual English-speaking peers, whose results vary. Both universal and language-specific development patterns are found in those studies.

Chen and Pan (2009) investigated the development of referential expressions in English-Mandarin bilingual children's oral narratives elicited by the *Frog, Where Are You?* story. After analysing the English narratives produced by 45 children at age 5, 8, 10 and by 15 young adults, the researchers found age-dependent development for referential expressions for both characters introduction and maintenance. However, by comparing the English narratives of Mandarin-English bilingual children with those of monolingual English-speaking children and the Mandarin narratives of monolingual Mandarin-speaking children in Hickmann et al.'s study (1996), Chen and Pan found that the bilingual children displayed different developmental patterns, which the researchers attributed to the influence of Mandarin as the more developed language. First, Chen and Pan found that their 5-year-old bilingual children and Hickmann et al.'s 4-year-old Mandarin-speaking children produced considerably more appropriate referential expressions for character introductions than the 4-year-old English-speaking children. The researchers then argued that Mandarin facilitates these bilinguals' development of referential expressions in English. However, at the age of 7–8 years old,

Mandarin's facilitating influence faded, and these bilinguals' development of referential appropriateness in English slowed as they fell behind the other two groups. Second, for the timeline in the development of referential expressions when introducing and maintaining the characters, Chen and Pan's findings suggested early mastery for character introduction and late mastery for character maintenance for the bilinguals, contrary to Hickmann et al.'s results (1996) for the English-speaking children. The researchers argued that the longer time it takes these bilinguals to produce appropriate referential expressions for character maintenance was due to their overuse of pronominals, which can be attributed to the fact that pronominals are preferred over nominals for character maintenance in Mandarin.

Apart from referencing devices, the development of evaluative devices has also been examined in English-Mandarin bilingual children. Chen and Yan (2011) compared the evaluative devices produced in English narratives of bilingual English-Mandarin children with their monolingual English-speaking peers, also using the *Frog, Where Are You?* story. The 160 subjects in this study also spanned a wide range of ages and were divided into four groups: 5 years old, 8 years old; 10 years old and young adults. The evaluative devices were categorised into five types, namely, frames of mind (characters' emotional and mental states); character speech; hedges; references to negative states and actions; and causal connectors (p. 573). Both similarities and differences were found in Chen and Yan's (2011) analysis. The number of evaluative devices used in narratives developed with age for both monolingual and bilingual children. Apart from this, their results also showed that the development patterns and use of evaluative devices of bilingual children resembled their monolingual peers. However, differences between bilingual and monolingual children were observed in the number of evaluative clauses and the expressions of frames of mind, with more evaluative clauses and affective expressions found in bilingual children's English narratives. One possible explanation for these differences provided by Chen and Yan (2011) was that bilingual children, under the influence of Chinese culture, were sensitive to the emotions of others, which in turn enhances their ability to express the emotions of story characters in English. Both language transfer and cultural influences play a role in bilingual children's English narrative production. As the first study to examine the narrative development of English-Mandarin bilingual children and their use of evaluative devices, Chen and Yan's study focused only on bilingual children's English narratives and did not analyse their Mandarin narratives, nor compare them with those of their

monolingual Mandarin-speaking peers. Based on the controversial mismatch between Chinese children's emotional expressions and parents' emotional narrative guidance reviewed in section 3.2.2, it is necessary to explore and analyse English-Mandarin bilingual children's Mandarin narratives in order to refine the understanding of this complex issue of intertwined cultural values, family narrative practices, and children's narrative expressions to verify the reasons for the possible differences between monolingual and bilingual children.

In addition, Yan et al. (2017) used 6 wordless picture series (adopted from Olten, 2008) and evaluated English-Mandarin bilingual children's primary school students' narrative development at years 1, 3 and 5 in Singapore. Even though the age-related development was manifest, the two languages of bilingual children in this study did not develop equally. These bilingual children's English vocabulary was advanced, resulting in more structural components, connective vocabulary, and evaluative devices observed in their English than Mandarin narratives. The age-related increase of descriptions of mental activities and emotions in evaluating devices was also identified. However, there is one flaw in their analysis. The researchers' definition of mental activity refers to the mental activity of the story's characters rather than the narrator's feelings. However, the example presented in the study contains phrases like 'I think' that appear to reflect the participants' mental activities instead of those of the characters, leaving the study's coding standards vague and the analysis subject to question.

The production of narrative macrostructural components is another research focus in bilingual children. Jia et al. (2010) investigated bilingual English-Mandarin children's production of macrostructural components. The sequential bilingual children were 4 Mandarin-English bilingual and 5 Cantonese-English bilinguals aged 7–8, who were exposed to English after age, and evaluated using the Edmonton Narrative Norms Instrument (ENNI: Schneider et al., 2005). According to the data that the researchers presented in the *First International Conference on Heritage Language Children*, they found that Cantonese-English bilingual children's narrative macrostructural components production resembled their Cantonese and English monolingual peers. However, to compare bilingual children's two languages, most of them performed better in English than in Cantonese or Mandarin. Unfortunately, Jia et al.'s (2010) study was only presented verbally in the conference, and no further details of their study and Mandarin-English bilinguals' Mandarin narrative are available.

A further study that investigated English-Mandarin bilingual children's narrative

macrostructure production was conducted by Hao et al. (2019). The 'Frog' stories were used to elicit children's narratives in two languages and in two tasks: storytelling and story retelling. However, the age range of the small sample size (21 children) was from 4;6 to 9;7 years old. As a result, although this study compared English and Mandarin narratives at both macrostructural and microstructural levels, it did not concentrate on the developmental patterns. Instead, it conducted a more concrete analysis of production in relation to syntactic categories and focused on the cross-linguistic transfer and exploration of the relationship between children's age onset of exposure to English, vocabulary size, and input and output in two languages, with their dual language narrative performances.

According to these findings, first, compared to microstructure, the macrostructure was more invariant across these bilingual children's English and Mandarin narratives, and the significant difference between these bilingual children's narratives in two languages was only found in the production of *Setting*. The higher score of *Setting* in English than in Mandarin was in line with the finding of the higher frequency of temporal and locative phrases produced in bilingual children's English narratives. Both these findings may be explained by the lower Mandarin proficiency than English of these bilinguals according to the researchers. Second, in terms of the correlation between Mandarin and English narratives at both the micro- and macrostructural levels, the Mandarin vocabulary size of the bilingual children in their study appeared to determine the occurrence of cross-linguistic interactions at the macrostructural level between languages. Last, for the factors influencing bilingual children's narrative performance, age was found to be significantly positively related with the macrostructure than microstructure in English narratives but not with Mandarin narratives at both the micro- and macrostructural levels.

The researchers (Hao et al., 2019) interpreted these data to mean that the bilingual children's narrative development improved in English but stagnated in Mandarin. The researchers further explained their findings as attributable to the accumulation of higher exposure for English with age and a lack of social and school support for Mandarin. Furthermore, while both regular input and output in both languages were not substantially connected with children's narrative ability, output was found to have a larger correlation than input, which could be attributable to the expressive nature in both regular output and narrative production. However, with its foci on the influence of language exposure, input, and output, the specific examination and analysis of

macrostructural and microstructural production in Hao et al.'s study (2019) did not consider the potential impact of culture and lacks a discussion of the use of internal state terms.

In comparison, there are even fewer studies on English-Mandarin bilingual children growing up in China in this context. Zhou et al.'s study (2009), the only research in this area conducted in China, examined the effects of Mandarin and English bilingual teaching on pre-school Chinese children's Mandarin language development. In this research, the effect of receiving second language (English) learning on these children's Mandarin narrative production was discussed. By comparing two groups of pre-schoolers who received bilingual teaching and monolingual teaching separately, no significant differences were found. However, the children who were selected for this research received unbalanced dual language exposure, in that an English language environment had not been introduced to them until kindergarten. Subsequently, they only received five hours of English language education per week, while the rest of their input was exclusively in Chinese. No further details about the quality and quantity of both languages' input were reported in their research, and only the children's Mandarin narrative development was examined. Therefore, this research did not provide a complete picture of both groups of bilingual children's narrative development in the Chinese cultural context.

To sum up, from the literature reviewed in this section, it is clear that more attention has been paid to the English-Mandarin bilinguals' referencing and evaluating devices used in their English narratives. However, the production of internal state terms, as one type of evaluating devices in relevant studies, does not appear to have been analysed in depth in the Mandarin narratives of the English-Mandarin bilingual children. Relevant studies also lack comparisons of English-Mandarin bilinguals' Mandarin narratives with their monolingual Mandarin peers, especially when narrative production, particularly internal states production, of Mandarin-speaking children proved to be different from that of English-speaking children. Moreover, studies show (Hao et al., 2019; Yan et al., 2017) that bilinguals' narrative production in English and Mandarin may not have developed in parallel if their two languages had not balanced developed. Therefore, the production of macrostructural components and macrostructural complexity in bilingual children's narrative in both languages also needs to be further examined. Though different assessment tools and stimuli materials have been used in these studies, none of the tools have been specifically designed to evaluate bilingual

children's narrative. It is therefore common to use the same material to stimulate narratives in both languages, and the exclusion of the practice effect was not considered in the design of these studies. Therefore, by using different but parallel materials from the MAIN, the practice effect can be ruled out in the present study.

3.3.2 Culturally-specific and Bicultural Characteristics of English-Mandarin-speaking Bilingual Children's Socialisation

Research on bilingual English-Mandarin children's socialisation is generally focussed on family practices rather than school settings and on a specific bilingual group: Chinese immigrant children in America. It has been argued that Chinese parents uphold their host cultural values (predominantly American in the studies) yet still maintain Chinese characteristics in some aspects, such as socialising their children without a preference of interdependence and independence. Both culturally-specific and bicultural characteristics are identified in parents' language socialisation practices.

For instance, Koh and Wang (2013) contributed a study about self-making in narrative from developmental and cultural perspectives by comparing dinner-time conversations in Chinese immigrant families with their American counterparts, finding that the Chinese immigrant parents appeared to uphold the values of both the home and the host cultures, which was in line with other studies (Chao, 1995; Jose et al., 2000). In their study, on the one hand, the Chinese immigrant parents tended to provide more information about initiating the events and more referential information for children. Compared to their American counterparts, they also emphasised information regarding other people who are present in their children's daily life. Conversing with their children about with whom and where they did something was a common component of dinner-time conversations, which was viewed by the researchers as evidence of Chinese immigrant parents helping their children to develop their interdependent selves and socialising them into communal life (Koh & Wang, 2013). On the other hand, Chinese immigrant parents narrated children's own actions as often as American parents. In fact, conversations about children's individual actions were more frequent at dinnertime in Chinese immigrant families than actions involving others. In addition to these results, the researchers also found that the dinnertime conversations in Chinese immigrant families were longer than in American families. In other words, English-Mandarin-speaking pre-school children in these immigrant families were encouraged to develop

their bi-cultural selves. However, in Koh and Wang's study (2013), these dual values were analysed only from the parental side of the conversation, and what they intended to encourage their children to develop regarding self-making in narrative was discussed. Since the children's contribution to narrative conversations was not analysed, its potential bicultural feature was not examined either.

However, the findings of Chinese immigrant parents making references to the internal state of their children when recounting past experience are mixed. In Koh and Wang's research (2013), expressions about emotions were in fact encouraged in Chinese immigrant families' dinner-time conversation. Conversely, other research (Wang et al., 2010; Doan et al., 2019) has found that Chinese immigrant parents are not as comfortable and used to talking about their children's feelings and thoughts as American counterparts. For example, the Chinese immigrant mothers in Doan et al.'s research (2019), relative to American mothers, referred less to feelings and more behaviours in their mental state talks with their children. Thus, information relative to family socialisation and comparison of children's narrative across cultures, not being limited to immigrant Chinese families and children in America, is needed to verify the bicultural features. More importantly, as the aforementioned research has not examined the bicultural features from the bilingual children's perspectives, coupled with the fact that bilingual children's Mandarin narratives seems to have been neglected in past studies, to what extent this 'bicultural' feature is reflected in English-Mandarin bilingual children's narrative production is thereby worth exploring in this study.

3.4 Chapter Summary

This chapter provides a comprehensive review of the comparative literature on narratives of monolingual Mandarin-speaking children and English-speaking children, as well as the literature on bilingual Mandarin-English-speaking children. It is noteworthy that most of the relevant studies have focused on the different narrative developmental stages of pre-school children. The influence of culture has also been more emphasised in terms of the socialisation of their home language and the role of parents' narrative style, and less on its influence on children's narrative construction, and mostly on comparisons between Chinese and American cultures, while other external environments, such as schools, are even less studied.

Based on the research gaps identified in this chapter, the present researcher has

posed a series of research questions and hypotheses outlined in the next chapter (Chapter 4) to begin the introduction of the methodology of the present study. The next chapter describes the research design, the procedures for coding and analysing the data, and the overall ethical and methodological considerations.

Chapter 4 Methodology

4.1 Introduction

In this section, the study design, the procedures for data collection, coding and analysis, and the overall ethical and methodological considerations are presented. Section 4.2 begins with a list of research questions and hypotheses. Section 4.3 describes the research methods used in the present study, followed by a description of the study participants in Section 4.4. Sections 4.5, 4.6, and 4.7 then present the instruments used and designed for the current study, in the following sequence: (a) the Multilingual Assessment Instrument for Narrative (MAIN) (Gagarina et al., 2012) used to evaluate the fictional narratives produced by monolingual Mandarin-speaking children and bilingual English-Mandarin speaking children; (b) the questionnaire on the linguistic background and narrative-related activities conducted at home with parents of the participating children; and (c) the interviews with parents and primary school teachers in Ireland and China to further understand children's language socialisation and narrative development at home and school. In addition, each subsection includes the descriptions of coding and analysis procedures for the data. Next, the piloting of the questionnaire and interview is illustrated in Section 4.8. The overall ethical considerations are then discussed in Section 4.9. Finally, Section 4.10 summarises this chapter.

4.2 Research Questions and Hypotheses

This doctoral study has three main objectives. First, it aims to gain a deeper insight into the narrative development of school-aged bilingual English-Mandarin-speaking children, focusing on the evaluation of macrostructure production and, more specifically, on (a) how structurally invariant it is across bilingual children's narratives in English and Mandarin; and (b) how it is structurally comparable in Mandarin to that of their monolingual peers. Second, it aims to enhance cross-cultural understanding of the narrative development of school-aged children, focusing on the impact of three Chinese cultural values (moral and introspective orientations, restrained emotional expression, and different gender expectations) on monolingual Mandarin and bilingual English-Mandarin children's narrative development. The third objective is to further synthesise the findings of the first and the second objectives, which involves

establishing a clear link between the intertwined cultural values, family narrative practices, and children's narrative expressions in order to verify the possible cultural reasons for the differences between monolingual and bilingual children's narrative production. To fulfil these three objectives, the following research questions are posed:

1. What are the narrative competences of the English-Mandarin bilingual children at age 9?

(a) At the macrostructural level, does the production of macrostructural components, macrostructural complexity, and internal state terms differ across the bilingual English-Mandarin children's two languages?

(b) At the macrostructural level, does the production of macrostructural components, macrostructural complexity, and internal state terms in Mandarin differ between the bilingual and monolingual children?

(c) At the microstructural level, are the length and lexical complexity of narratives in Mandarin comparable between the bilingual and monolingual children?

(d) Does the comprehension of narratives differ across the bilingual English-Mandarin children's two languages, and between the bilingual and monolingual children in Mandarin?

2. What roles do language input, the narrative activities at home, and language proficiency play in the narrative production and comprehension of the Mandarin-speaking monolingual children and the English-Mandarin bilingual children?

(a) Do the relative language inputs in English and Mandarin have an impact on the Mandarin-English bilingual children's narrative production in the two languages?

(b) Does the bilingual children's language proficiency in Mandarin and English have an impact on their narrative production in the two languages?

(c) What are the similarities and differences between English and Mandarin in terms of narrative activities at home for the bilingual children? What are the similarities and differences between narrative activities at home for the monolingual and bilingual children in Mandarin?

(d) Do narrative activities conducted at home have an impact on the bilingual Mandarin-English children's narrative production in two languages, and on the monolingual children's narrative production in Mandarin?

3. To what extent does culture influence the narrative production and comprehension of the Mandarin-speaking monolingual children and English-Mandarin bilingual children?

(a) To what extent are the monolingual and bilingual children's family narrative socialisation practices associated with the cultural values of moral and introspective orientations, restrained emotional expression, and variations in relation to gender expectations (as discussed in Section 3.2.3)?

(b) To what extent is the monolingual and bilingual children's school-based instruction associated with the cultural values of moral and introspective orientations, restrained emotional expression, and variations in relation to gender expectations?

(c) What are the similarities and differences between the monolingual and bilingual children's family narrative socialisation practices and school-based instruction?

(d) To what extent is the monolingual and bilingual children's narrative production (as measured in Question 1) associated with the cultural values of moral and introspective orientations, restrained emotional expression, and variations in relation to gender expectations?

(e) How does the influence of culture on family narrative socialisation practices and school-based instruction impact children's narrative production?

The first research question aims to fill the research gap identified in the Literature Review in Chapter 2 and Chapter 3 to the effect that only limited research has been conducted with a focus on the Mandarin-English bilingual children's narrative development. Moreover, this research focuses on the use of referencing and evaluative devices of the Mandarin-English bilingual children rather than the overall narrative structure (cf. Section 3.3). Compared to their narrative production in Mandarin, the Mandarin-English bilingual children's narratives in English have been given more attention than their narratives in Mandarin, i.e., studies have tended to examine only their English narratives and compared them to their English monolingual peers (e.g., Chen & Yan, 2011; Jia et al., 2010). Therefore, the English-Mandarin bilingual children's narrative production in Mandarin and the macrostructural level of their narrative are further evaluated in the present study to answer sub-question RQ 1(a). In addition, on account of the research scope and the distinct linguistic differences between the Mandarin and English languages, whether bilingual children reach a

similar milestone at a specific age to monolingual children in terms of narrative production is examined to answer the RQ 1(b) and 1(c). Although the comparison focuses on macrostructural production, the non-expression of specific macrostructural components in narratives does not imply a lack of understanding of these components. Therefore, an evaluation of both the comprehension and production concurrently is sufficient to generate a broad understanding of children's narrative development. Thereby, the RQ 1(d) is formulated in such a way that any potential unbalanced development between children's production and comprehension can be detected.

Before delving into the investigation of the culture surrounding the English-Mandarin bilingual children's and monolingual Mandarin-speaking children's narrative competence, the second research question proposes to examine the potential influence of language input, language proficiency, and narrative activities. The relative quantity of exposure to input of the bilinguals, proficiency levels, and the different narrative activities received by the bilinguals and monolinguals are analysed to answer the RQ 2(a)–(d).

The third research question is based on the mixed findings concerning whether culture plays a role in the development of children's narratives. Some researchers who propose the universal feature of narrative structure (Mandler et al., 1980; Trabasso & Nickels, 1992) have found that narrative skills, particularly at the macrostructural level, are invariant across cultures and languages, even for bilingual children (e.g., Kunnari et al., 2016; Fiestas & Peña, 2004; Bohnacker, 2016), while other studies have found evidence to the contrary (Roch, et al., 2016; Kapalková et al., 2016; Jia et al., 2010; Pearson, 2002). Moreover, culture has been argued to play a role in the narrative development of children with a Chinese background. As reviewed in the previous sections, previous related cross-linguistic and cross-cultural research studies have focused on the differences between Chinese and American culture (Doan & Wang, 2010; Han et al., 1998; Koh & Wang, 2013; Markus & Kitayama, 1991). These differences can be summarised as follows: North American parents in previous studies tend to prize independence, while Chinese parents tend to emphasise interdependence. Traditionally, Chinese children learn to be part of society and are taught the standards of acceptable social engagement, moral correctness, and modest behaviour from a very young age. In contrast, Western children are typically trained to focus on their individual roles and express their preferences, opinions, and emotions. However, related research (e.g., Koh & Wang, 2013; Wang, 2004) has focused more on the influence of cultural differences

in the home environment, while there is still less research on their impact in the school environment. The findings presented in studies regarding the extent to which these cultural differences are in turn reflected in Mandarin-speaking children's narratives are inconsistent, especially with regard to emotional expression (cf. 3.2.2 and 3.3.3). Thus, the present study intends to address this question in three dimensions: family narrative socialisation practices; school narrative training; and children's narrative production. The first four sub-questions 3(a)–(d) were thereby proposed. The findings of these sub-questions were then synthesised to answer the final sub-question, 3(e), concerning how cultural influences on family narrative socialisation practices and school narrative training affect children's narrative production, leading to an integrated discussion of the role of culture in children's narrative development.

Therefore, in response to the research questions, the following four hypotheses were proposed based on the literature reviewed in Chapters 2–3:

Hypothesis 1: The English-Mandarin bilingual children's proficiency in two language affects their macrostructural production in both languages (cf. 2.5.5).

Hypothesis 2: School-based narrative instructions in English have an impact on the English-Mandarin bilingual children's English narrative production and comprehension, while school-based narrative instruction in Mandarin has an impact on the monolingual Mandarin-speaking children's narrative production and comprehension (cf. 2.5.2).

Hypothesis 3: Narrative activities at home affects the English-Mandarin bilingual children and monolingual Mandarin-speaking children's narrative production and comprehension (cf. 2.5.1).

Hypothesis 4: Chinese cultural values, viz, moral and introspective orientations, restrained emotional expression, and variations in relation to gender expectations, influence the English-Mandarin bilingual and monolingual Mandarin-speaking children's narrative production and comprehension (cf. Chapter 3).

4.3 Research Methods

In order to draw a more complete picture of school-aged bilingual English-Mandarin-speaking and monolingual Mandarin-speaking children's narrative development, to gain a further understanding of the role of culture and to respond to the research questions stated above, mixed research and a combination of case study and cross-sectional research methods were selected.

4.3.1 Quantitative and Qualitative Mixed Methods Research

In the present study, mixed methods research, specifically the 'concurrent combination of qualitative and quantitative research' (Dörnyei, 2007, p. 172), has been deemed optimal for the following reasons. First of all, mixed methods research has been argued to lead to a better understanding of complex phenomena in greater depth than a single quantitative or qualitative study, taking into account not only the totality of the phenomenon but also its components from different perspectives (Cohen et al., 2018). Second, by combining quantitative and qualitative methods, the mixed methods approach is used not only for data collection but also for data analysis. Integrating the analysis and interpretation of data so that both forms of data complement and corroborate each other enables multi-level analysis of complex issues, improves validity and broadens the audience (Dörnyei, 2007). Third, the interaction of quantitative and qualitative designs in mixed methods research compensates for the weaknesses of single research methods (Dörnyei, 2007; Cohen et al., 2018), such as their overly general interpretations of small samples in qualitative methods and simplistic representations of results in quantitative methods.

The present study attempts to understand the monolingual Mandarin-speaking children's and bilingual English-Mandarin children's narrative development, and the associated cultural influences from the children's, parents', and schools' perspectives. The mixed research method is therefore regarded as suitable for the collection of data from multiple perspectives to answer the multi-level nature questions proposed in the above section. Therefore, this method has been utilised not only in the research design of the present study through interviews with parents and teachers, the questionnaire completed by parents, and the assessment of children's narrative skills but also in the data analysis phase, through the quantitative and qualitative interpretation of the data

collected. This is carried out to achieve a comprehensive and multi-perspective understanding of the narrative production of the monolingual Mandarin- and English-Mandarin-speaking bilingual children, and to determine the role of culture in their narrative development. This will be achieved through a logical line of analysis of the influence of culture on their language socialisation and narrative practices in home and school environments, which thus further influences their narrative development. Furthermore, by including an analysis of teachers' and parents' perspectives, the present study reaches a broader range of individuals who are interested in children's narrative development at home and school, expanding the practical implications of narrative training for those bilingual and monolingual children growing up in contexts similar to those examined in the present study.

4.3.2 Cross-Sectional Research and Case Studies

In the present study, the cross-sectional and multiple case study research methods are also combined. The cross-sectional research method is chosen because it is more flexible, allowing the study to reach participants and collect data at different times (Cohen et al., 2018). Moreover, this method is less affected by the withdrawal of respondents than the longitudinal study method, especially in its application to similar studies of child narrative development (as discussed in Section 2.3), so that the quantity of data collected can be guaranteed. Particularly in the research field in question, cross-sectional research is widely applied to enable cross-language and cross-cultural comparisons (e.g., Yan et al., 2017; Lindgren, 2018; Leyva et al., 2021). Thus, for the present study, this method was adopted to collect narratives from different groups of monolingual and bilingual children who are at the same age in different physical locations at different times, after which these two groups could be compared cross-sectionally.

The case studies method can be applied to the investigations of multiple individuals and often contains multiple levels (Stake, 2005; Dörnyei, 2007). By involving multiple cases in a single study, this type of approach provides a more comprehensive exploration and description of the general situation. In addition to this merit, the case studies approach has been chosen for the current study for the following reasons. First, this approach is sufficient to collect holistic data to describe and delve into the interactions of relevant events, people, and other influences associated with a

phenomenon in a unique and complex context (Cohen et al., 2018). Second, by applying this method, the present researcher has been able to fully participate in the data analysis phase, so that a rich and detailed analysis and interpretation of the case in question can be further achieved (Hitchcock & Hughes, 1995). Third, this method emphasises individuals or groups of individuals, focusing on understanding their experiences and interpreting their perceptions of those experiences (Hitchcock & Hughes, 1995). Finally, it has been suggested that case studies are suitable for mixed methods research, as the data collected therein invariably involves both qualitative and quantitative data through instruments such as questionnaires, interviews, and observations (Dörnyei, 2007; Cohen et al., 2018). Thus, in combining the above advantages, although the sample sizes of case studies are usually small and cannot be compared to large-scale quantitative studies, this type of study contains multiple levels of cases with mixed methods which are sufficient to identify changes or characteristics relevant to the proposed research questions.

Therefore, in the present study, the case studies method was not only reflected in the evaluation of narrative production of monolingual and bilingual groups of children but also employed in the interviews conducted with parents and teachers of participating children, which enabled the exploration and description of the unique cultural contexts of the monolingual children in China and bilingual children in Ireland. Although interviews are rarely used in relevant studies on children's narrative development, they are exploited in the present study for the purpose of capturing the underlying cultural characteristics of children's narrative expressions and examining whether underlying cultural characteristics correspond to the similarities and differences in the cultural characteristics of the internal family and external environments of the two groups of children. As a result, whether this relatively novel approach in the field of child narrative development can gather information in question can be verified. Last, this overall multilevel study design yielded the largest possible amount of data collection results.

4.4 Research Participants

The participants in the present study include children, parents, and teachers. The participating children are divided into two groups. One group includes monolingual Mandarin-speaking children (n=20) from Beijing, China; the other group includes bilingual English-Mandarin children (n=20) from Dublin, Ireland. All these children were age 9 when they participated in this study. All the parents of the participating children completed a questionnaire about their and their child's language background. Two parents of the participating monolingual children and three parents of the participating bilingual children were also interviewed. A further interview was conducted with one teacher in China teaching monolingual children and two teachers in Ireland teaching bilingual children. A general description of the children, parents, and teachers who participated in the study is presented in the following section.

4.4.1 The Recruitment of Participants

Mandarin-speaking monolingual children were initially planned to be recruited in China through the public-school network. In contrast, the bilingual Mandarin-English speaking children and their families were recruited in Dublin, Ireland, through Mandarin- language schools. After the study had been granted ethical approval, the researcher contacted Mandarin language schools in Dublin, Ireland, and public primary schools in Beijing, China to initiate the recruitment process and identify potential participants. Beijing and Dublin were chosen for the present study because of the educational advantages they both offer. In particular, Dublin, as Ireland's capital city, has more Mandarin schools than other Irish cities, which provided a better opportunity for the recruitment of sufficient numbers of bilingual children. However, due to the outbreak of Covid-19 in China in January 2020 and in Ireland in March of the same year, schools were temporarily closed in succession in both countries, and the pupils of both countries had to quarantine at home. As a result, the process of contacting schools and recruiting participants and families proved very difficult and an extremely low number of responses was received. This was also why one of the original plans to recruit monolingual English-speaking children as a comparison group was abandoned. Moreover, this required an update of the original participant recruitment procedures and an additional approval from the Research Ethics Committee of the School of Linguistic,

Speech and Communication Sciences. New recruitment procedures included posting the participant recruitment information on Facebook Mums groups and other online parental forums, and voluntary circulation of the recruitment call by participating families.

4.4.2 Description of the Participating Children

The children participated in the present study when they were 9 years old. The age of 9 was chosen because, at a macrostructural level, it is not until this age that most children's narratives resemble those of adults (Berman & Slobin, 1994; Gagné & Crago, 2010). Thus, in the narratives of 9-year-old children with normal monolingual and bilingual development, the setting of the story, the GAO episodes, and the internal state terms, as either the initiating events or reactions of the protagonists, or even both, are more consistently produced compared to younger children.

The study was designed to collect data from two groups of subjects: 20 monolingual Mandarin-speaking children in China; and 20 bilingual English-Mandarin speaking children in Ireland. To restrict regular language input to Mandarin and English and exclude the influence of children being relocated in cultures other than Chinese and Irish in the past to the maximum extent possible, all the participants in Ireland had to have been born and living in the country for most of their lives. At the time of participant selection/recruitment, all the children in China and Ireland had been enrolled in mainstream schools and had no history of language impairment, hearing loss, or cognitive impairment, as reported by their parents. Detailed characteristics of the monolingual Mandarin and bilingual English-Mandarin groups, as well as their language background as reported by parents through the questionnaire, are summarised in Table 4.1, with a description of each group.

Table 4.1

Characteristics of participating monolingual and bilingual children

Groups	Gender(F/M)	Age (Mean)	Age (Range)
Monolinguals (n=20)	10/10	9.5	9;2–9;11
Bilinguals (n=20)	13/7	9.7	9;3–9;11

For the monolingual group, all the children in this group (n=20) were monolingual Mandarin speakers and did not speak another Chinese dialect. They were aged between 9 and 10 years (M=9.5) when they participated in the present study and completed the storytelling tasks. Most of the children were the only child in the family, with the exception of one child. The age at which the children said their first words ranged from 9 months to 24 months, with the majority of parents (75%) indicating that their children did so between 12 and 18 months of age. According to the questionnaire, children started kindergarten at age 3 and elementary school at age 6, except for one child who started kindergarten at age 2;10, and elementary school at age 5. No parent or caregiver was reported to have a speech impediment nor felt concerned about their children's language development. All the children had normal hearing and there were no reports by the parents of hearing problems, delayed cognitive development, or language disorders.

For the bilingual group, all the children in this group (n=20) were bilingual English-Mandarin speakers and did not speak another Chinese dialect at home. They were aged between 9 and 10 years old (M=9.7) when they participated in the storytelling tasks. According to the questionnaire, all of the children returned to China for only one or two months per year during their holidays. Most of the children were the first child in the family, with the exceptions of two second children. The age at which the children said their first words ranged from 10 months to 24 months, with most parents (75%) reporting their children saying their first words between 10 months and 18 months, and the remainder at around 24 months. According to the questionnaire, the children entered monolingual English kindergarten or daycare at different ages from 2–4 years old, all of whom were enrolled in monolingual English primary schools but at different ages (4–6 years old). No parent or caregiver reported concern about their children's language problems nor that the parents themselves had speech and language difficulties. All of the children had normal hearing, and there were no reports of hearing problems, delayed cognitive development, or language disorders.

The bilingual children's English and Mandarin language skills in understanding and speaking were rated by their parents during the data collection. Four options were provided in the questionnaire to represent this information: 1 = very badly; 2 = quite badly; 3 = quite well; and 4 = very well. All the parents reported their children's English language skills operated 'quite well' and/or 'very well'. However, in terms of their understanding and speaking skills in Mandarin, some parents (n=5) reported that their

children understood Mandarin ‘quite badly’, with three of them reporting they spoke Mandarin ‘quite badly’ and two of them ‘quite well’, while the remaining parents indicated their children understood and spoke Mandarin ‘quite well’ and/or ‘very well’. The results of children’s higher and lower language skills based on the parental ratings of their children’s English- and Mandarin-speaking and understanding skills respectively in the questionnaires are summarised in Table 4.2.

Table 4.2

Parental rating of the bilinguals’ speaking and understanding language skills

	Speaking	Understanding
Higher in English than in Mandarin	10	10
Equal in English and Mandarin	8	10
Higher in Mandarin than in English	2	0
Total	20	20

The bilinguals’ language proficiency levels in English and Mandarin were rated based on the descriptors of Common European Framework of Reference (CEFR) for young learners (2018). The present researcher first rated all the narratives in the two languages produced by the bilinguals. A second rater who had no prior involvement in the study and is also an English-Mandarin bilingual researcher familiar with the CEFR descriptors was then asked to rate the bilinguals’ narratives in the two languages. The interrater reliability score was 95% for the English and 90% for the Mandarin. A full agreement on the different ratings was then achieved following a discussion between the present researcher and the second rater. The results of the bilingual children’s strong (B2–C1 levels) and weak (B1 levels) language skills based on the language ratings are summarised in Table 4.3, which is 90% in line with the parental rating of these children’s speaking skills (see Table 4.2). Moreover, both researchers agreed that, within the group, none of the bilingual children were found to have weak English skills (below B2 level), but some of the bilinguals’ Chinese skills were rated at B1 levels.

Table 4.3*Researchers' rating of the bilinguals' oral production language skills*

	Oral Production
Higher in English than in Mandarin	10
Equal in English and Mandarin	10
Higher in Mandarin than in English	0
Total	20

Last, in the interests of anonymity, ID numbers were given to the participating monolingual and bilingual children; for example, 'MMC1' stands for monolingual Mandarin Chinese speaking child #1, while 'EMBC1' stands for English-Mandarin bilingual child #1. The examples that appear in this thesis are all accompanied by this ID.

4.4.3 Description of the Participating Parents

In the monolingual group, all the parents of the participating children (n=20) were born and had been living in China, while for the bilingual group (n=20), their parents were born and raised in China and had lived in Ireland for 10 to 20 years. They all reported Mandarin as their first language and English as a second language. Three of the parents further reported that both parents spoke a Chinese dialect in addition to Mandarin and English; one of the parents reported that only the father spoke a Chinese dialect; and, for another family, the father was reported as speaking Korean as an additional language. However, none of them reported that the dialect or additional language was used in their family. Three parents of the bilingual children and two parents of the monolingual children participated in the follow-up interviews. In the interests of anonymity, ID numbers were given to the participating parents. The parents from Ireland were labelled as Parent A, B and C; and the parents from China as Parent D and E.

The parents of the participating monolingual and bilingual children were also asked to provide information about their completed education. All the parents (n=20) living in China who participated in this study received a high school or post-high school education. Similarly, most of the parents (n=19) in the bilingual group had received a

high school or post-high school education and their pre-university education in China. In addition, some parents of the bilingual children (n=5) indicated that they achieved their third-level and post-third-level education in Ireland. The results of this maternal and paternal educational background are shown in Table 4.4. The non-parametric Mann-Whitney U Tests were conducted to compare both the maternal and paternal educational backgrounds of the monolingual and bilingual children, the results of which indicated that no significant differences were found between the latter's maternal ($U = 190.50, p = 0.79$) and paternal educational background ($U = 174.00, p = 0.49$). This enabled comparisons between the monolingual and bilingual groups that decreased the possibility that potential differences could be caused by the large differences in educational attainment between the two groups of parents.

Table 4.4

Maternal and paternal educational background of the parents of the monolingual and bilingual children

	Monolingual Parents		Bilingual Parents	
	Mother	Father	Mother	Father
Middle School	0	0	1	1
High School	4	2	3	1
Some College	6	8	7	6
Undergraduate Degree	9	9	8	9
Postgraduate Degree	1	1	1	3
Total	20	20	20	20

4.4.4 Description of the Participating Teachers

The two teachers in Ireland and one teacher in China who participated in the semi-structured interviews all had experience of teaching Mandarin to children in all grades of elementary school. In particular, the two Chinese teachers who were teaching in Ireland had been running Mandarin schools for many years with rich experiences of

teaching and communicating with Chinese children and parents in Ireland. Coupled with the fact that their bilingual children were participants in the present study and they were the Mandarin language teachers of some of the participating children, these two teachers were able to provide relevant information both from a teacher's and a parent's perspective. In the interest of anonymity, IDs were also given to the participating teachers. Teachers from China were labelled as Teacher A; and teachers from Ireland as Teacher B and C.

4.5 Narrative Assessment Tool: the MAIN

In this section, the research instrument known as the Multilingual Assessment Instrument for Narratives (the MAIN) (Gagarina et al., 2012) is introduced. Since a detailed introduction and Literature Review have been provided in Chapter 2, Section 2.4, this section focuses on explaining the rationale for selecting and adapting this tool in the present study, after which the MAIN adaptation and assessment procedures are described, followed by an introduction of the data transcription and analysis process in regard to children's narratives.

4.5.1 Methodology Considerations in Adopting the MAIN

The MAIN was chosen as the narrative assessment tool for the present study on the basis of the following three methodological considerations. First, the present study aims to evaluate Mandarin- and English-Mandarin-speaking children's fictional narrative production. Compared to personal stories, fictional stories are more controllable so that unexpected situations such as children abandoning the topic, shifting topics, or not producing the elements in question can be avoided. Thus, the fictional stories are more amenable to comparison across languages. Furthermore, eliciting fictional stories by means of pictures offers a means to control the scaffolding from the experimenter. The collection of narratives of children telling a story after seeing pictures would have provided the present researcher with no possibility of probing any information relating to the research questions consciously. Second, the MAIN is specially designed to elicit bilingual and monolingual children's narratives. In using two stories with parallel structures but different content, the MAIN rules out to the greatest extent the scaffolding of using the same eliciting materials in two languages. Thirdly, the story grammar model (Stein & Glenn, 1979) functions as the

foundation of the design of the stories in the MAIN. Therefore, by using this tool, the eliciting tasks are controlled in a way that opportunities are created for children to produce macrostructural components, causal and temporal relations, and internal state terms.

The *Baby Goats* and *Baby Birds* stories, as shown in Figures 4.1 and 4.2, have been specifically selected in the present study as they are designed for storytelling tasks. These two stories contain parallel content in terms of (a) a setting introducing time, place, and characters; (b) three episodes, including the protagonist's goal, the protagonist's attempt to achieve the goal, and the outcome of the attempt; and (c) the clear facial expressions of the characters, indicating internal state terms such as initiating the event and reaction. Moreover, each of the stories contains three episodes. In this way, compared to a short story that is designed with only a single episode, three opportunities are created for the participants to produce macrostructural components. At the same time, compared to longer stories designed with multiple episodes such as *Frog, Where Are You?* (Mayer, 1969), the information is more controlled, and story structure categories more easily identified and produced by the children (Gagarina et al., 2016) in a way that is therefore suitable for cross-language and cross-group comparison.

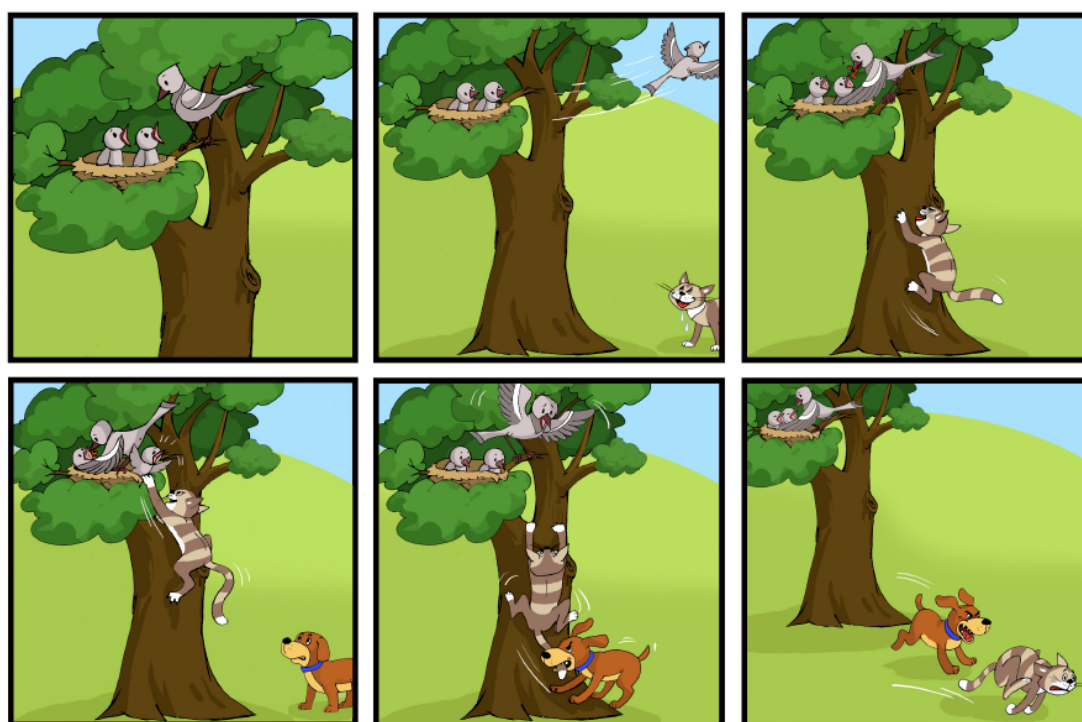


Figure 4.1 *Baby Birds* story



Figure 4.2 Baby Goats story

4.5.2 Language Translation, Adaptations and Piloting of the MAIN

The present study was initially designed in 2018. Until the narrative data collection was completed in September 2020, no Mandarin version of the MAIN tool was published by the tool designers' team.¹ Therefore, in order to be able to use this tool in the current study to collect narrative produced by the Mandarin-speaking children, the tool was first piloted and tested in Mandarin. This section describes the process of adaptation and piloting.

The fact that it was not validated in Mandarin did not prevent the use of this assessment tool in the present study. The cross-language feature effectiveness of the MAIN was validated in a number of different languages, such as Basque (Ezeizabarrena, 2016), Dutch (Blom & De Jong, 2016), and French (Knapp & Haiden, 2016) etc. More importantly, during the narrative production, the language that the present researcher

¹ Vietnamese (Tue Trinh, 2016) was the only East Asian language in which this tool had been piloted by the data collection stage of this study. Cantonese (Chan et al., 2020) and Mandarin (Luo et al., 2020) were added to the MAIN in 2020. The pilot of the Cantonese version was confirmed as being in progress, though the pilot of the Mandarin version remained unclear at the finalisation stage of this thesis.

used was specifically selected and was unrelated to the content of the story. Instructions like ‘*anything else?*’ and ‘*please continue*’ (and the corresponding Mandarin translation) were used to encourage the participants to continue their task when needed. No language related to the content of the stories was used so that the facilitation of the content from the research could be ruled out during this process. The present researcher followed this procedure strictly during the data collection process. On this basis, the impact of language adaptation into Mandarin on children’s performance in the narrative production was minimised as far as possible.

The present researcher translated and back-translated the instructions and scripts from English to Mandarin to check the language used and the meaning. Due to the distinct lexical, syntactic, and semantic differences between Mandarin and English, and although the scripts of the two stories under consideration do not contain complicated syntactic sentences, some minor wording adjustments were made in the translation as follows. First, English contains the third person pronouns ‘he,’ ‘she,’ and ‘it’; however, while ‘he,’ ‘she,’ and ‘it’ in Mandarin are three different words in their written form, all three have the same pronunciation: ‘*tā* [t^hA]’. Therefore, alternative nouns like ‘mother bird,’ ‘baby bird,’ ‘cat,’ and ‘fox’ were used in Mandarin scripts to provide a coherent reference for the story characters. Second, Mandarin does not have the indefinite article but has classifiers before a noun in which the noun is qualified by a numeral; it also does not have the definite article ‘the’ but uses ‘this’ and ‘that’ for the same purpose. Therefore, numbers and classifiers were used to translate phrases such as ‘a mother bird,’ while phrases such as ‘the baby birds’ were translated into ‘these two baby birds’ in Mandarin. Finally, Mandarin also pays less attention to external connections among sentences than English, while sentences in Mandarin are linked by their internal logical and semantic correlations. Therefore, when translating *Goal* and *Attempt* sentences from English when ‘because’ is used to explain the causal relationship, for example, the reasons usually precede the actions, using the conjunction ‘*suǒ yǐ* (so)’ or ‘*yú shì*’ (and then) to indicate the causal or/and temporal relation in Mandarin. Moreover, when the internal logic between sentences is sufficient to explain the causal relations, causal conjunctions like ‘because’ and ‘so’ are still translated and maintained in the Mandarin translation to mark the causal relations and for reference purposes in the coding process.

The scripts of these two stories and the translation (see Appendix A) were only used as references, so that the macrostructural and microstructural components that could potentially occur were clear to the present researcher. Neither the English nor the

Mandarin script supplied the one ‘correct’ answer, and the children could be creative and imaginative when telling stories and using languages. Therefore, the scripts themselves were not used as the criteria for deciding the correctness or otherwise of children’s productions.

Additionally, piloting a test or questionnaire prior to their formal use in research is crucial ‘to establish the content validity of scores on an instrument and to improve questions, format, and scales’ (Creswell, 2013, p. 161). Although the MAIN has been extensively verified in various studies, to see how children responded to the assessment procedure in Mandarin, and to capture any potential problems that may have resulted from the translation, a pilot study was conducted prior to the use of the final Mandarin version of the assessment instrument in the present study. The assessment process was piloted with four monolingual Mandarin-speaking children and four bilingual children to ensure equivalence. The monolingual Mandarin-speaking children were born and live in Beijing, while the bilingual children were born and live in Ireland with both parents, who were Chinese and had lived in Ireland more than 15 years. All of them were selected in line with the participant selection criteria stated in Section 4.4. In addition, these children and parents were not invited to participate in the follow-up data collection in order to avoid duplication of participation by the subjects.

The participants in the pilot study were required to complete every phase of the assessment procedure, including the two elicitation tasks and the two subsequent sets of comprehensive questions. Two of the monolingual Mandarin-speaking children completed the storytelling tasks first using the *Baby Goats* story and then the *Baby Birds* story, while the other two children completed the tasks in the opposite order. For the four bilinguals, as the process was conducted in two languages, these bilingual children were able to participate in the pilot study with counterbalanced language use order and the stimuli order. As both the Mandarin monolingual children and the English-Mandarin bilingual children were able to complete the tasks and response to the comprehension questions without any reported problems, these children were included in the subsequent data analysis.

4.5.3 Assessment Procedure of the MAIN

Although narrative structure has been found to be invariant across cultures and

languages in some studies (Mandler et al., 1980; Uccelli & Páez, 2007; Bohnacker, 2016), the focus of this study was to challenge this view and explore evidence of cross-cultural influences on children with a Chinese background. However, it has been pointed out that situation-specific factors might also influence the degree of cultural difference, such as whether the narrative is a fictional or personal story, the extent to which the parental authority is involved, and differences in children's understanding of interaction (Wang & Leichtman, 2000). Thus, on this basis, the following assessment procedure was applied.

4.5.3.1 Setting, Materials and Procedure

In the present study's collection of children's fictional narratives, it was essential to conduct the elicitation tasks in a setting with which children were familiar, so that the children would feel more comfortable (Cohen et al., 2018). The instructions also needed to be concise, clear, and straightforward, so that the children would not misunderstand or else benefit from the revealing of information. The ideal setting for the data collection was a classroom in school with which participants were familiar and in which they felt comfortable for assessment purposes. However, due to the strict restrictions during the Covid-19 pandemic, access to schools was not possible and the researcher decided to move the assessment procedure online, which made the children's homes the setting for data collection. This led to two possible outcomes. On the one hand, the children were familiar with their family settings and might have felt more comfortable telling stories in the settings. On the other hand, children's caregivers might have had a greater opportunity to choose to observe the whole assessment process because (a) it was more convenient for them; (b) it involved the use of computers and online platforms that may require help from parents with the set-up and log-in; (c) since it was conducted online, parents might have had their own concerns which made them feel that they needed to be present; or (d) the computer was located in a specific room, such as the parent's office, resulting in them having to be present. In this situation, the caregiver(s) might feel inclined to intervene in their children's productions consciously or unconsciously, while the children themselves might seek help from their caregivers, for example, concerning how to say something in a certain language. Thus, to prevent this intervention from parents, the caregivers were informed in front of the children and before the data collection that no language scaffolding about the stories should be

provided during the data collection process from the caregivers. If any intervention from them that influenced the children's narrative production was observed by the researcher during the process, she would have no option but to discard this set of data. Fortunately, however, this rarely happened during the data collection process, and only one set of data had to be discarded.

4.5.3.2 Language Instruction

To counterbalance the differences that shared knowledge might cause, half the monolingual children (n=10) were first presented with the *Baby Goats* and then the *Baby Birds* story and asked to tell stories in their native languages, at least one week apart, while the other half were presented with the stories in the reverse order. For the bilingual children, the first quarter (n=5) were presented with the *Baby Goats* story and asked to tell the story in English, and the *Baby Birds* story in Mandarin, also at least one week apart. The second quarter were then presented with the stories in reverse order but were asked to tell the stories in the same language order. The third and last quarter of bilinguals received the two stories in reverse order but were asked to tell the stories first in Mandarin and then in English. For the monolingual children, Mandarin was the language for instructions throughout the assessment process, while for the bilingual children, the researcher used English and Mandarin strictly and exclusively in the English and Mandarin storytelling tasks respectively. No language mixing or switching was used in the tasks by the researcher, so that language mixing and switching from the children was avoided as far as possible.

Prior to the data collection, the researcher would talk to the child, using such introductory questions as '*Do you like stories?*' and '*What is your favourite story?*' to establish familiarity with the child, help them to relax and reduce the child's nervousness. During the data collection process, only utterances aimed at encouraging the child to continue were used, such as '*Tell me more*', '*What happened next?*', and '*What else?*' If the child looked at the researcher directly while he/she was telling the stories, the latter usually smiled, nodded, or simply commented '*ok*' to indicate that she was listening. If the child did not explicitly state on their own behalf that they had finished telling the story, the researcher would obtain this information by asking '*Have you finished?*'.

4.5.3.3 Picture Presentation

Each story contained six pictures, and participants were presented with two pictures at once. No time limitations were given to the children to observe the pictures. After being presented with all six pictures, all the pictures were presented to the children on the screen, so they could spend some time looking at them again if they wished to. The researcher was ensured that no scaffolding about the content of the pictures was to be provided to the participants. In case a child was uncertain about what happened in the story or about the protagonists' behaviours and raised related questions, he/she was informed that they could just tell the stories based on their understanding of the story content. When the children were ready, they could start telling the story in the language required. During the storytelling process, two pictures were presented simultaneously again. In this way, the risk of participants 'jumping' between pictures was avoided to a great extent.

4.5.3.4 Comprehension Questions

After the children stated that they had finished the storytelling tasks, ten comprehension questions were raised by the present researcher in the required language. Before these questions were raised, children were asked a warm-up question about whether or not they liked the story. This question aimed to help the children to relax and get into a mode of answering questions.

Table 4.5 outlines the ten comprehension questions. Among these ten questions, questions 1–3 referred to pictures 1–2; questions 4–6 were about pictures 3–4; and questions 7–9 were related to pictures 5–6. These three sets of questions aimed to investigate children's understanding of (a) the goal; (b) the internal states of characters as initiating events or reactions; and (c) the reason why characters had the internal states. Question 10 was an overall question to investigate children's own evaluation of the characters' behaviours.

Table 4.5

Comprehension questions for Baby Goats and Baby Birds story

<i>Baby Goats story</i>	<i>Baby Birds story</i>
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Q1	Why was the mother goat in the water?	Why does the mother bird fly away?
Q2	How does the baby goat feel?	How do the baby birds feel?
Q3	Why do you think that the baby goat is feeling bad/scared/in danger etc.?	Why do you think that the baby birds are feeling bad/hungry etc.?
Q4	Why does the fox leap forward?	Why is the cat climbing the tree?
Q5	How does the fox feel?	How does the cat feel?
Q6	Why do you think that the fox is feeling bad/scared/hungry/ disappointed etc.?	Why do you think that the cat is feeling bad/hungry/scared etc.?
Q7	Why does the bird bite the fox's tail?	Why does the dog grab the cat's tail?
Q8	Imagine that the bird sees the goats. How does the bird feel?	Imagine that the dog sees the birds. How does the dog feel?
Q9	Why do you think that the bird is feeling good/fine/happy etc.?	Why do you think that the dog feels good/ fine/ happy/ satisfied etc.?
Q10	Who does the mother goat like best, the fox or the bird? Why?	Who does the mother bird like best, the cat or the dog? Why?

Again, no scaffolding from the researcher was provided. If the child expressed that he/she didn't know the answer to a given question, the researcher would reassure the child and move to the next question. If the child expressly stated that he/she didn't understand the meaning of the question, the researcher would reassure them by telling the child that we would come back to the question again after completing all the questions and then asked the child the next question. The word that the child didn't understand was explained after all the questions were answered. This happened once to child EMBC7 in the Mandarin storytelling task, when the word 'feel (感觉)' was not understood. The researcher translated this word into English and asked the question again in Mandarin. After confirming that the question was understood, the child gave the answer in Mandarin. This was not treated as giving the 'correct' answer in the data coding and analysis procedure and was labelled descriptively as the language comprehension issue.

4.5.4 Data Transcription and Coding Process

4.5.4.1 Transcription and Segmentation of Narratives Elicited by the MAIN

The stories produced by the children were transcribed verbatim and can be found in Appendix A. Regarding the very different writing systems of Mandarin and English, all the Mandarin narratives appearing in the transcription were presented using the writing system of Mandarin Chinese named *hanzi* for the coding purpose (see Appendix A). The examples presented in the thesis are presented using both the *hanzi* (the writing system) and *pinyin* (the Mandarin phonetic alphabet for pronunciation) transcription, with English translations following the Leipzig Glossing rules² for the purposes of demonstration, comparison, and interpretation. All the components of the children's narratives were transcribed, including reformulations, repetitions, and filled pauses, but were not included in the data segmentation and analysis.

After the transcription of the narratives, both the English and Mandarin narratives were segmented into C-units. According to Loban (1976), a C-unit is 'an independent clause with its modifier' (p. 6). Compared to other segmentation units such as T-units (Hunt, 1965), Tone groups (Halliday, 1967), and clauses or utterances that have been widely used, C-units are regarded as suitable for comparison between English and Mandarin and have already been already in oral narrative assessments in Mandarin (e.g., Zhang, 2013; Hao et al., 2018; Sheng et al., 2020). Moreover, segmenting by intonation or prosody has been prominently suggested as worthy of consideration when coding narrative in Chinese (To et al., 2010), since the Chinese language relies heavily on prosody to identify boundaries between sentences (Chao, 1968). To et al. (2010) find that when segmenting Cantonese-speaking children's narrative by prosody, the inter-rater reliability yields the best result at 85%. Due to the similarity in this regard between Mandarin and Cantonese, it is reasonable to use this result as a point of reference. Moreover, clauses in Mandarin usually appear in juxtaposition (Matthews & Yip, 1994); for instance, Mandarin sentences can be linked by their internal logical and semantic correlations instead of explicit connectives such as 'and', 'because', and 'and then,' as mentioned in 4.4.3.3. Therefore, it is also necessary to identify boundaries between C-units using pauses and change of contents. In what follows, an example of the

² See Chen et al. (2014) on applying the Leipzig glossing rules in Chinese.

segmentation of narrative is presented below in example (1), while the segmentation of a full story is attached in Appendix A.

(1) 有 一 棵 树 上 有 三 只 鸟//
 You yi ke shu shang you san zhi niao
 exist one CLF tree on exist three CLF bird
 ‘There is a tree with three birds on it’

然后 有 两 只 鸟 宝宝
 Ranhou you liang zhi niao baobao
 Then exist two CLF bird baby
 ‘and then there are two baby birds’

In the present study, the narrative data were first segmented into C-units and the above mentioned semantic, prosodic, and pausal criterion applied. A total of 20% of the data transcription and segmentation (eight narratives in total) were checked by the second English-Mandarin bilingual researcher, in which connection the inter-judge reliability score was 92.3% C-units to C-units. A final agreement was achieved after a discussion between the researcher and the second rater. The total number of utterances (TNU in C-units) was calculated for the length of each narrative. The MLUw (mean length of utterance in words) was calculated for syntactic complexity since MLUw is suitable for comparisons across languages with difference morphological types (Yip & Matthew, 2007), whose comparability has been validated in previous research (e.g., Qi, 2011) on the language acquisition of bilingual English-Mandarin-speaking children.

4.5.4.2 Coding of the Macrostructural Components

The two stories *Baby Birds* and *Baby Goats* contain all the story grammar components based on Stein and Glenn’s model (1979). Each of the stories contains setting information about the place and protagonists in the first picture. Three episodes are presented, using two pictures each. Each sequence of two pictures contains the protagonists’ goals, their attempts to achieve the goals, and the outcome, indicating either the success or the failure of their attempts at the end. The internal state terms are

designed as initiating events and reactions. The internal state forms can be inferred either from the context or the facial expressions and behaviours of the characters.

The expression of internal state terms indicates children's understanding of the intentions, emotions, and attitudes of the characters in a given story. Sometimes, the narrator's personal attitudes towards the protagonists and events may be revealed at the same time by the use of internal state terms in narratives. As mentioned in Chapter 2, the study of internal state terms in narrative derives from the theory of mind (Miller, 2006). On the one hand, it is necessary for children to acquire this ability to express their desire and understand other people's behaviours. On the other hand, according to Miller (2006), language is essential for children to understand the use of internal state terms due to their unobservable features.

Therefore, the assessment of children's production of internal state terms helped the present researcher to understand children's ToM development. The stories include emotional terms (e.g., 'sad,' 'happy'), perceptual state terms (e.g., 'see,' 'saw'), and physiological state terms (e.g., 'hungry') that initiate events; metacognitive mental verbs (e.g., 'want,' 'decide') in goal statements; and emotional/physiological state terms as reactions. Thus, by telling the stories, children's production of internal state terms and potential characteristics and preferences can be assessed. However, though not every category of internal state term appears in real narratives, children might have them stored in their minds. Therefore, open-ended questions are asked in the comprehension section to further examine children's understanding of internal state terms.

For the coding procedure, first, all the structural components in the narrative produced in the two languages were identified. The codes are based on the occurrence of story structural components: (a) setting; (b) internal state term (IST) as initiating event; (c) goal; (d) attempt; (e) outcome; and (f) IST as reaction. All the transcripts were initially coded without using the English scripts provided by the MAIN and the Mandarin scripts translated by the present researcher. Next, the coded data were checked, with reference to the provided and translated scripts in case of any uncertainty. Second, the coded structural components were scored based on the MAIN's scoring criteria, which is summarised in Table 4.6, according to the successful production of these components. A score of '2' is given to the production of the setting, with '1' for time and '1' for place. For the production of the rest of the components, a score of '1' is given to each component. The total score is 17 and is calculated as an indicator for

the story structure analysis. The story structure complexity involves an analysis based on the number of Goal-Attempt-Outcome (GAO) sequences; AO sequences; GA/GO sequences; and single G (without A or O) produced. Internal state terms (ISTs) were also identified and classified into the following categories: (a) perceptual state terms; (b) physiological state terms; (c) consciousness terms; (d) emotion terms; (e) mental verbs; and (f) linguistic verbs/verbs of saying/telling. ISTs were scored in terms of the total number in tokens and further divided into categories. Table 4.6 also presents the example for occurrences of each category and sub-category of story grammar components in the data, which were selected from English narratives produced by bilingual children.

Table 4.6

Coding and scoring scheme for macrostructural components with examples for each category

Story Grammar Component	Subcategory	Examples (the components are marked in italics)	Score
Setting	Time	EMBC 4: So <i>one day</i> the bird	1
	Place	was sitting <i>in their nest on the big oak tree</i> .	1
IST as IE	Perceptual state terms	EMBC 4: The cat was <i>hungry</i> as well and he <i>saw</i> the bird	1
	Physiological state terms	nest.	
	Consciousness terms		
	Emotion terms		
	Mental verbs		
	Linguistic verbs/verbs of saying/telling		
Story Grammar Component	Subcategory	Examples (the components are marked in italics)	Score

Episode (Goal)	N/A		EMBC 4: He <i>decided</i> that he would try to get some of the birds to eat.	1
Episode (Attempt)	N/A		EMBC 4: The cat <i>trying to</i> get one of the little chicks.	1
Episode (Outcome)	N/A		EMBC 4: The dog suddenly grabbed the cat out of the tree and <i>chased it away</i> .	1
IST as R	Perceptual terms	state	EMBC 6: They live <i>happily</i> ever after except the cat.	1
	Physiological terms	state		
	Consciousness terms			
	Emotion terms			
	Mental verbs			
	Linguistic verbs	verbs/verbs of saying/telling		

Note: IST = internal state terms

4.5.4.3 Coding of the Structural Complexity

As reviewed in 2.2.1.3, the structural complexity of narration classifies the level of children's narrative development. Through a comparison of the structural complexity across children's narratives, their knowledge of narrative schemata, and their understanding of characters' motivations and goal-directed behaviors, children's ability to link events together by following causal/logical relations are examined (Trabasso & Nickels, 1992). As goal-directed behavior is prominent in Stein and Glenn's story grammar model (1979) and episodic analysis of narrative, Westby (2012) divides the structural complexity into three levels: sequences; incomplete episodes; and complete episodes, based on the occurrence of goal expressions. Sequences are structures without goal expressions. Incomplete episodes are episodes with a goal expression but lacking an attempt or outcome. By contrast, complete episodes include full GAO sequences. A

score of ‘1’ is allocated to the production of sequence structure, ‘2’ to the incomplete structure, and ‘3’ to the complete structure. Examples of these three levels of complexity, which were selected from English narratives produced by bilingual children, are presented in Table 4.7.

Table 4.7

Coding scheme for story complexity with examples and scores for each category

Category	Examples (from English narratives)	Score
Sequences	EMBC 3: <i>The baby fell into the pond. When the daddy saw it, he tried to get the baby goat out</i>	1
Incomplete episodes	EMBC 3: <i>There is a fox beside the tree who wants to eat another baby lamb or goat. The mommy gets the baby goat out and then the fox runs to eat, the fox runs over to try to get the goat.</i>	2
Complete episodes	EMBC 4: <i>A dog came along and saw the cat. He didn't look very happy. The dog suddenly grabbed the cat down the tree and chased it away.</i>	3

4.5.4.3 Coding of the Comprehension Questions

Ten comprehension questions are scored according to whether the children's answers revealed their ability to understand and interfere with the protagonist's goals and internal state terms. A score of ‘1’ is given for each correct response, and the total score is 10. The types of questions are presented in Table 4.8, while a full coding table is included as an example in Appendix A.

Table 4.8

Coding scheme for comprehension questions with number of item(s) and examples for each category

Category	Number of Item(s)	Examples (<i>Baby Birds</i> story)
Goal-directed behaviour	3	<i>Why does the mother bird fly away?</i>
IST as IE	2	<i>How do the baby birds feel?</i>
IST as R	4	<i>How does the cat feel?</i>
Emotional preference	1	<i>Who does the mother bird like best, the cat or the dog? Why?</i>

Note: IST = internal state terms

4.5.5 Data Analysis

To prepare the data for statistical analysis, the measures at the microstructural level, the total number of utterances in C-units, the total number of words, the number of different words, and the mean length of utterance in words were calculated for the Mandarin and English narratives produced by the two groups of children and manually entered into SPSS (version 26) to enable a comparison between groups and cross-languages. The same procedure was applied on dealing with the narrative data at the macrostructural level, which include children's macrostructural components, structural complexity, and comprehension scores. Since all the scores are presented in numerical form, they were manually entered into SPSS.

Next, the data was analysed for normality by performing skewness and kurtosis exams and a visual perception of their normal Q-Q plots (Wilk & Gnanadesikan, 1968; Loy et al., 2016). Parametric and non-parametric tests were then selected based on the results of normality analysis. Furthermore, to answer RQ 3, apart from conducting quantitatively analysis to detect differences between and within groups, qualitative analysis was also performed to identify cultural patterns.

4.6 Questionnaire

4.6.1 Description of Questionnaire

Questionnaires (see Appendix B) were administered to the parents at the beginning of the study to provide a comprehensive understanding of their child's background, language exposure, and narrative-related activities at home. The parents of the bilingual children were able to choose their preferred questionnaire language.

The questionnaire was divided into three main areas. The first theme asks parents to report on children's linguistic background information and language fluency. Second, questions to measure language input are raised, when parents are asked to recall the languages to which their children have been exposed and at roughly what frequency. Last, the third area asks parents to estimate the frequency of children's narrative-related activities at home during the preceding month. Therefore, by collecting and analysing the information in this domain, the RQ 2 raised in Section 4.2 is addressed.

4.6.2 Data Coding, Entry, and Analysis

All the non-numerical variables in the questionnaire were first coded numerically and the following coding scheme was assigned by the present researcher. First, in terms of the English and Mandarin input of the bilingual children, five categories were provided for the parents to choose: 0% Mandarin; 25% Mandarin; 50% Mandarin; 75% Mandarin; and 100% Mandarin.

Second, as shown in Table 4.9, for the multiple choices question about the types of narrative activities that the children regularly do at home, ten items were provided, which were further divided into three categories; namely, interactive, productive, and receptive. A total of 4 options was provided regarding the frequency, viz, '1' ('never'), '2' ('twice a month'), '3' ('once or twice a week'), and '4' ('almost every day').

Table 4.9*Coding scheme for narrative activities*

Categories	Narrative Activities	Score
Interactive Activities	Reading books with others	1–4
	Telling stories about what happened at school	1–4
	Telling stories about what they read at school	1–4
	Talking about TV/DVDs/computer games that they watched	1–4
	Doing role plays with friends/siblings	1–4
Receptive Activities	Reading books by themselves	1–4
	Listening to songs and singing	1–4
	Watching TV/DVDs/computer games	1–4
Productive Activities	Doing role plays with toys	1–4
	Writing stories	1–4

After the coding was completed, all the data were manually entered into SPSS and analysed. The data were first analysed for normality by conducting skewness and kurtosis tests and visually evaluating the data's normal Q-Q plots (Wilk & Gnanadesikan, 1968; Loy et al., 2016). Parametric and non-parametric tests were then selected respectively based on the results of the normality analysis to examine the potential differences in maternal and paternal education between the two groups. Furthermore, correlations between variables, such as the language input with the microstructure and macrostructure scores of the children's narratives, were calculated. The effects of group (monolinguals vs bilinguals) and language (English vs Mandarin) on narrative activities performed at home were also examined respectively.

4.7 Semi-structured Interview

4.7.1 Description of Interview

In the present study, two semi-structured interviews were designed for the parents of the participating children and Chinese teachers who teach in mainstream schools in China and Mandarin language schools in Ireland. The purpose of these interviews was

to collect additional data from the parents' and teachers' perspectives to complement and corroborate the assessment of children's narrative production and the information provided by parents through the questionnaire. Most importantly, the semi-structured interviews explored the role that culture plays in the development of children's narratives in both the home and school contexts, which cannot be fully revealed from the child's narratives. The designed questions broadly overlap in terms of the assessment of children's narrative competence and perceptions of the importance of narrative competence for children's development from the teachers' and parents' perspectives. Different questions regarding children's narrative activities at home and in school, and their impact on children's narrative development, were raised separately. A complete list of questions is presented in Appendix C. Due to the individual differences in the richness of the information provided by participants in the interviews, some questions were added when the researcher felt that further clarification was needed or removed when the questions had already been answered.

The interviews were conducted online in a one-to-one format. Initially, participants were given the option to conduct the interviews in their preferred language. Since Mandarin was the native language of all the participants, all the interviews were conducted in Mandarin. Since the purpose of the semi-structured interviews was to gather data in relation to RQ 2 and RQ 3, the content provided by teachers and parents was prioritised, and nonverbal information such as facial expressions and body language was not a focus. Therefore, only the spoken interview was recorded.

4.7.2 Data Transcription, Coding, and Analysis

A total of eight interviews with five parents (Parents A, B, C in Ireland, and Parents D, E in China) and three teachers (Teacher A in China and Teachers B and C in Ireland) were conducted, all in Mandarin. The audio content of the interviews was first transcribed automatically in the textual format using the dictation function in Microsoft Word, because it can automatically recognise Mandarin speech. The researcher then listened to the audio content for a second time and manually edited the parts of the transcription that Word failed to recognise or recognised incompletely. Similarly to the narrative produced by children, the reformulations, repetitions, and filled pauses were included in the scripts but excluded in the coding and data analysis phrases. The Mandarin transcripts (Appendix D) were subsequently translated into English. Since

the focus of the data analysis was on the content of the interviewees' responses rather than their use of language, the transcribed segments that appear in the following data analysis chapters are English-translated versions for presentation purposes.

For the coding process, the researcher first read the transcription, and then identified the information that was in direct relation to the research questions or could be further discussed and analysed. The descriptive codes were then applied by the researcher to those chunks of information. The lists of codes for the qualitative data are presented in Table 4.10.

Table 4.10

Coding scheme for the qualitative data from the interviews

Themes	Sub-themes	Codes
Home environment	Parent-child interaction	Moral introspective
		Emotion Expressions
		Gender
	Siblings/peer-child interaction	Moral introspective
		Emotion Expressions
		Gender
	Family narrative activities	Moral introspective
		Emotion Expressions
		Gender
School Environment	Teacher-child interaction	Moral introspective
		Emotion Expressions
		Gender
	Peer-child interaction	Moral introspective
		Emotion Expressions
		Gender
	School narrative activities	Moral introspective
		Emotion Expressions
		Gender

4.8 Piloting of the Questionnaire and Interview

In order to analyse and address any potential issues about the assessment processes, questionnaire, and interview, the parents of the children taking part in the MAIN pilot study were invited to participate the pilot study of the questionnaire and interview. The problem that was most often raised by the participating parents concerned the differentiation of first and second language in the questionnaire. The researcher was able to answer the parents' questions by email while the latter were filling the questionnaire in the pilot study. On this basis, all the parents were eventually able to complete the questionnaire successfully. Thus, in the later data collecting process, the researcher specifically informed the parents that she would be able to answer any questions they might have in relation to the questionnaire items. As all the parents completed the data collection in the pilot study without any reported problems, they were combined with other participants for the later data analysis.

4.9 Research Ethics

The research ethics are considered in relation to the following main principles: informed consent; anonymity and confidentiality; non-maleficence ('do not harm'); and ownership, control, and access of/to data (Cohen et al., 2018, pp. 111–142). The application form, which provided thorough responses to these principles, was submitted to the Research Ethics Committee of the School of Linguistic, Speech and Communication Sciences of Trinity College, Dublin, and fully approved (see Appendix E). The data collection process began in early 2020 when the outbreak of Covid-19 in China unfortunately occurred. Initially, it was planned that the data would be collected by the researcher in person in China. However, due to the global spread of the virus, this was not possible, and collecting data face-to-face was not feasible due to the changing restrictions of the Chinese and Irish governments. Therefore, the data collection methods had to be carried out online.

In the context of the school closures during the pandemic when the principals were not able to respond to emails, parents or the first caregivers who had familiarised themselves with the detail of the study and who were interested in taking part were asked to contact the researcher directly via email. Subsequently, the participant

information leaflet and consent form were sent to these parents and first caregivers to seek their participation formally. After receiving the parents' and teachers' emails indicating their willingness to participate, the researcher contacted them to seek a mutually convenient time for online data collection via email. The parents' willingness to be present at the data collection with children was also established at this stage. The signed consent forms were returned to the researcher by the parents and teachers before the day of data collection via email. The researcher then signed the two copies of the consent forms. In addition, one of the consent forms bearing both the parents'/caregivers' and the researcher's signature was returned to the participants on the same day via email. Assent from the children was obtained on the day of data collection, and after the researcher helped the children to relax by interacting with them and before the assessment process started. The project was explained by using child-appropriate language, and the children's willingness to take part was confirmed. All the participants were informed by clear statements in the participant information leaflet and consent form that their participation in the current study was completely voluntary and they had the full right to withdraw at any time without consequences of any kind.

The online meeting platform Zoom was used during the data collection process. On each occasion before the data collection, one new meeting was arranged, and the unique meeting ID and password were not sent to participants until the data collection had started. With regards to the confidentiality and anonymity of the participant identities and the data, only audio recordings were made during the data collection process. The recording of the data was shared with the participants after the transcription process, when the participants had the right to request the deletion of any parts they feel might reveal their identities. Any information or data collected by the study that could be identified was also allocated a code number. The researcher had sole access to the key that linked code numbers to individual identities, which was stored separately. The hard copy records and digital data were available to the researcher for transcription and analysis, and to the researcher's supervisor. All the digital data were encrypted and password-protected, and the hard copies were safely housed in a locked office.

Notwithstanding the satisfaction of the overall ethical considerations stated above, a number of other challenges presented themselves as a result of collecting the data online, the gist of which, compared to the face-to-face approach, involved assessing the participants' reactions, especially negative ones such as nervousness and distress during

the online data collection (Eynon et al., 2017). Therefore, getting acquainted with participants and establishing a good relationship with them beforehand was important (Mann & Stewart, 2000), especially when doing research with the children (Cohen et al., 2018), which was more difficult online than in fact-to-face interaction. Therefore, in the present study, there were no time limits for this process. In general, the researcher would continue to interact with the participants, especially the children, until they seemed to be relaxed. Second, the quality of data collected might be influenced by the network status not only of the present researcher but also the participants. In the current study, the participants were informed in advance that they might be asked to repeat what was missed by the researcher if the network conditions were poor. Fortunately, this situation only occurred on a handful of occasions in the interview phrase, and the participants were able to restate their answers afterwards.

4.10 Chapter Summary

This chapter describes the study design and the methodology used. It first sets out the research questions that were proposed to achieve the aims of evaluating school-aged the English-Mandarin bilingual and monolingual Mandarin-speaking children's narrative development, and exploring the influence of culture on them. A mixed research methods was deemed appropriate for the present study due to its ability to combine qualitative and quantitative methods in both the data collection and analysis process, which allowed for the realisation of comprehensive information generated from children's narratives, as well as the influence of the home and school environment to further convey the role of culture. Next, a detailed description of the participants, data collection instruments, data transcription, coding and analysis procedures, and the piloting of these instruments was provided. Finally, the overall ethics considerations were outlined.

The next chapter reports the results of the English-Mandarin bilingual and monolingual Mandarin-speaking children's narrative production and comprehension, as evaluated using the MAIN. Chapter 6 then provides an analysis of the results of the impact of language input and language proficiency of English and Mandarin on the bilinguals, and the narrative activities for the monolinguals and bilinguals collected from the questionnaires in relation to these children's narrative production and comprehension. In Chapter 7, the findings from the qualitative data from the interviews

are presented.

Chapter 5

Results: Narrative Macrostructure and Microstructure

Production, Narrative Comprehension and Cultural Expressions

5.1 Introduction

This chapter reports on the narrative abilities of monolingual Mandarin-speaking children (n=20) and bilingual English-Mandarin-speaking children (n=20). The children's narrative abilities are initially reported quantitatively and qualitatively at the macrostructural level and then at the microstructural level. Section 5.2 examines children's production of macrostructural components, macrostructural complexity and internal state terms. In this part, a comparison is made between the two languages of the English-Mandarin bilingual children, as well as in Mandarin between the monolingual and bilingual children. Next, Section 5.3 reports on the microstructural level of children's narrative production. In this section, the microstructural production in Mandarin of the monolingual and bilingual children is compared. In Section 5.4, the analysis of children's story comprehension skills is presented. Section 5.5 explores cultural realisations in the narrative production of monolingual and bilingual children. Finally, Section 5.6 summarises the research findings of this chapter.

5.2 Macrostructure Production

To answer RQ 1(a), *At the macrostructural level, does the production of macrostructural components, macrostructural complexity, and internal state terms differ across the bilingual English-Mandarin children's two languages?* and RQ1(b), *At the macrostructural level, does the production of macrostructural components, macrostructural complexity, and internal state terms in Mandarin differ between the bilingual and monolingual children?*, this section is divided into the corresponding three parts: macrostructural components production (5.2.1); macrostructural complexity (5.2.2); and internal state terms production (5.2.3).

5.2.1 Macrostructural Components Production

To briefly reiterate the story structure of the *Baby Goat* and *Baby Bird* stories in the storytelling task, each story consists of one *Setting* and three episodes. Each episode consists of five macrostructure components respectively, namely *Internal State Terms (IST) as Initiating Events (IE)*, *Goal*, *Attempt*, *Outcome*, and *Internal State Terms (IST) as Reaction (R)*. According to the MAIN scoring scheme for macrostructure production (Gagarina et al., 2012), the *Setting* consisted of statements introducing both the time and place of the stories, which counts as 2 scores. Each of the rest of these components was counted as 1 score. Since children had three opportunities to produce the *IST as IE*, *Goal*, *Attempt*, *Outcome*, and *IST as R* for each story, the maximum score one child could obtain was 17 per story. In this section, the data was analysed quantitatively and qualitatively to examine (a) cross-language differences between the bilingual children's English and Mandarin narrative production; and (b) cross-group differences between the monolingual and bilingual children's Mandarin narrative production.

5.2.1.1 Macrostructure Components Production of the English-Mandarin Bilingual Children in Both Languages

The results of general macrostructural components production for the bilinguals, as measured by the total number of macrostructural components, as well as the production of each macrostructural component in Mandarin and English, are shown in Table 5.1.

Table 5.1

Descriptive statistics: Bilinguals' (n=20) macrostructural components Production by language

Measures	Languages	Mean	SD	Range
Total number of components	Mandarin	7.85	2.621	4–13
	English	8.80	2.118	5–13
Setting	Mandarin	.60	.598	0–2
	English	.85	.813	0–2
IST as IE	Mandarin	1.45	1.099	0–3
	English	1.70	1.081	0–3
Goal	Mandarin	.95	.686	0–2
	English	.70	.657	0–2
Attempt	Mandarin	2.15	.813	1–3
	English	2.65	.671	1–3
Outcome	Mandarin	1.95	.826	1–3
	English	2.10	.718	1–3
IST as R	Mandarin	.60	.681	0–2
	English	.70	.801	0–2

First, to examine the language effect (English vs Mandarin) on bilingual children's total number of macrostructural components, as well as the production of each of the macrostructural components, the paired-sample *t* tests were conducted. The results are shown in Table 5.2. The results of the paired-sample *t* tests showed that the null hypotheses that there were no differences on the total number of macrostructural components and the production of the *Attempt* component between languages was rejected, with both these facts' p-values lower than 0.05 (Fisher, 1950, p. 142). In other words, in regard to the total number of macrostructural components, the bilingual children scored significantly lower in Mandarin ($M = 7.85$, $SD = 2.62$) than in English ($M = 8.80$, $SD = 2.12$, $t(19) = -2.19$, $p = .040$, mean difference 95% CI $[-1.85, -0.50]$). In addition, the bilingual children produced significantly fewer *Attempts* in Mandarin ($M = 2.15$, $SD = .81$) than in English ($M = 2.65$, $SD = .67$, $t(19) = -2.12$, $p = .047$, mean difference 95% CI $[-.99, -0.01]$). However, no significant difference was found in

comparison to the results from other macrostructural components.

Table 5.2

Paired sample t test results: Bilinguals' macrostructural components production by language

Bilinguals (n=20)	M	SD	t	Sig. (2-tailed)
Total number of components in Mandarin – Total number of components in English	-.95	1.93	-2.19	.040
Setting in Mandarin – Setting in English	-.25	.85	-1.31	.204
IST as IE in Mandarin – IST as IE in English	-.25	1.11	-1.00	.330
Goal in Mandarin – Goal in English	.25	.71	1.56	.135
Attempt in Mandarin – Attempt in English	-.50	1.05	-2.12	.047
Outcome in Mandarin – Outcome in English	-.15	.93	-.71	.481
IST as R in Mandarin – IST as R in English	-.10	1.07	-.41	.681

5.2.1.2 Macrostructural Components Production of the Monolingual Children in Mandarin

The results of the monolingual children's macrostructural components production are shown in Table 5.3. To analyse the macrostructural components production difference between the monolingual and bilingual children in Mandarin, the total number of macrostructural components, as well as the production of each macrostructural component, were compared using non-parametric Mann-Whitney U tests because of the lack of normality of the data. The results reported in Table 5.4 suggest no significant differences between variables. However, there seems to be a clear difference in *Setting* production, with a mean rank score of 16.93 for the monolinguals, and 24.08 for bilinguals with a p-value of 0.052. While a p-value of 0.05 (Fisher, 1950, p. 142) is commonly regarded as the statistical significance cut-off line, it is still quite possible that this difference is not due to random errors and is 'real' but might not be exposed due to the small sample size.

Table 5.3

Descriptive statistics: Mandarin monolinguals' macrostructural components production

Monolinguals (n=20)	M	SD	Range
Total number of components	8.65	1.87	5.5–11.5
Setting	1.00	0.56	0–2
IST as IE	1.93	0.75	0.5–3
Goal	0.88	0.54	0–2
Attempt	2.50	0.49	1.5–3
Outcome	2.15	0.54	1.5–3
IST as R	0.20	0.30	0–1

Table 5.4

Mann-Whitney U test results: Mandarin macrostructural components production in monolinguals and bilinguals

	Monolinguals (n=20)	Bilinguals (n=20)		
	Mean rank	Mean rank	Z-value	p-value
Total number of components	22.58	18.43	–1.13	.265
Setting	16.93	24.08	–2.01	.052
IST as IE	23.10	17.90	–1.43	.165
Goal	19.90	21.10	–0.35	.758
Attempt	22.70	18.30	–1.26	.242
Outcome	21.90	18.00	–1.09	.296
IST as R	17.45	23.55	–1.85	.102

5.2.1.3 Descriptive Statistics of Macrostructure Production of the Monolingual and Bilingual Children

Following a quantitative cross-group and cross-language analysis of the macrostructural components production of the monolingual and bilingual children in the storytelling tasks, a qualitative examination was also undertaken. This analysis was deemed necessary to understand the differences in the frequency of production of the various macrostructural components in relation to each other. The results in both languages for the bilingual group, as well as in Mandarin for the monolingual and bilingual children, are shown in Table 5.5 and Figure 5.1.

First, regardless of language and group, all the children were able to produce *Attempt* and *Outcome* in their narratives. The bilingual children had equal opportunities to produce the six components in Mandarin and English. As explicitly shown in Table 5.5 and Figure 5.1, *Goal* and *IST as IE* were produced by the majority of bilingual children in Mandarin and English ($n \geq 15$). However, compared to other macrostructure components, the *IST as R* was the least frequently produced component ($n=9$ in Mandarin and $n=10$ in English). Moreover, the *Setting* was less frequently produced by bilingual children in both languages ($n \leq 12$).

For the Mandarin narratives of the monolingual group, similarly, compared to other macrostructural components, the *IST as R* component was the least frequently produced one ($n=4$). Surprisingly, even though the monolingual children had a total of 6 opportunities to produce *IST as R* in Mandarin, the actual production of this component was still much lower than the bilingual group ($n=9$). However, the monolingual children produced *Setting* ($n=19$) and *IST as IE* ($n=20$) more frequently in their Mandarin narratives compared to bilingual children ($n=11$ for *Setting* and $n=15$ for *IST as IE*).

Table 5.5

Frequencies of macrostructure components produced by the monolinguals and bilinguals by language

	Monolinguals (n=20)	Bilinguals (n=20)	
	Mandarin (%)	Mandarin (%)	English (%)
Setting	95	55	60
IST as IE	100	75	85
Goal	80	75	75
Attempt	100	100	100
Outcome	100	100	100
IST as R	20	45	50

Note: IST, internal state terms; IE, initiating events; R, reaction

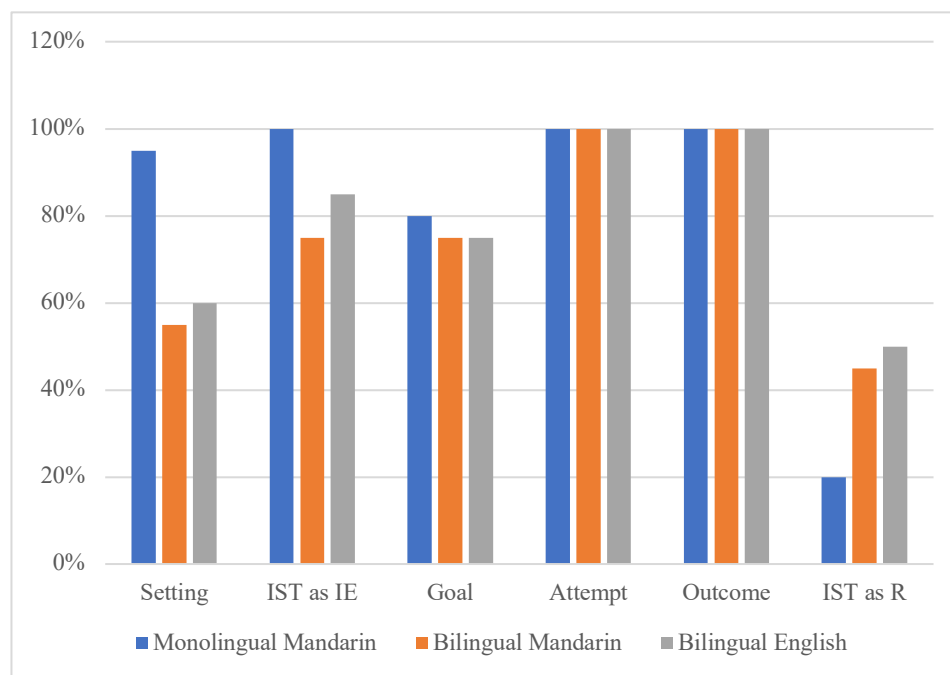


Figure 5.1 The frequencies of macrostructure components production in Mandarin by the monolinguals and bilinguals, and in English by the bilinguals

5.2.2 Macrostructural Complexity Production

5.2.2.1 Macrostructural Complexity Production of the Monolinguals and Bilinguals

As stated in Chapter 4, regarding the classification and coding system of the macrostructural complexity, points were allocated for three levels of the hierarchy of story structures for statistical analysis; namely the sequence (AO, 1 point), the incomplete episode (GA, GO or G, 2 points), and the complete episode (GAO, 3 points). The descriptive results corresponding to the macrostructural complexity scores of the two groups are presented in Table 5.6 below.

Table 5.6

Macrostructural complexity production in monolinguals and bilinguals by language

Groups	Languages	Macrostructural Complexity		
		Score		
		M	SD	Range
Monolinguals (n=20)	Mandarin	3.57	1.29	2–7
Bilinguals (n=20)	Mandarin	3.40	1.31	1–6
	English	3.65	1.30	1–6

A paired sample t test was conducted to analyse the statistical difference of macrostructural complexity production across the two languages of the bilingual children. A Mann-Whitney U test was selected to compare the monolingual and bilingual children in their Mandarin narratives. As suggested in Table 5.7 and Table 5.8, there was no significant difference between bilingual children's Mandarin ($M = 3.40$, $SD = 1.31$) and English narratives' macrostructural complexity ($M = 3.65$, $SD = 1.30$, $t(19) = .84$, $p = .412$, mean difference 95% CI $[-.37, -0.87]$), as well as no significant cross-group difference between the monolingual ($Mdn = 3.50$) and bilingual children ($Mdn = 3.50$, $U = 184$, $z = -.43$, $p = .678$)

Table 5.7

Paired sample t test between macrostructural complexity production and languages of the bilinguals

Pair	N	M	SD	t	df	Sig. (2-tailed)
Complexity Mandarin – Complexity English	20	.25	1.33	.84	19	.412

Table 5.8

Mann-Whitney U test between Mandarin macrostructural complexity production of the monolinguals and bilinguals

	Monolinguals (n=20)	Bilinguals (n=20)		
	Mean rank	Mean rank	z-value	p-value
Complexity Score	19.70	21.30	-.43	.678

5.2.2.2 Descriptive Statistics of Macrostructural Complexity Production

The production frequencies of three levels of story structures, the sequence, the incomplete episode, and complete episodes, are presented in Table 5.9 and Figure 5.2. A total of 60% of the monolingual children (n=12) and 50% of the bilingual children (n=10) were able to produce the complete GAO episodes once in their narratives. Given the high frequency of production of the character's *Goal* for monolingual children (80%, n=19) and bilingual children (75% for both languages, n=15), it can be inferred that not all of the *Goal* outputs were converted into GAO episodes.

Table 5.9

Frequencies of structural episode produced in Mandarin by the monolinguals and bilinguals, and in English by the bilinguals

Episode	Monolinguals		Bilinguals	
	(n=20)		(n=20)	
	Mandarin (%)		Mandarin (%)	English (%)
AO	100	80	80	
G/GA/GO	35	30	40	
GAO	60	50	50	

Note: G, goal; A, attempt; O, outcome.

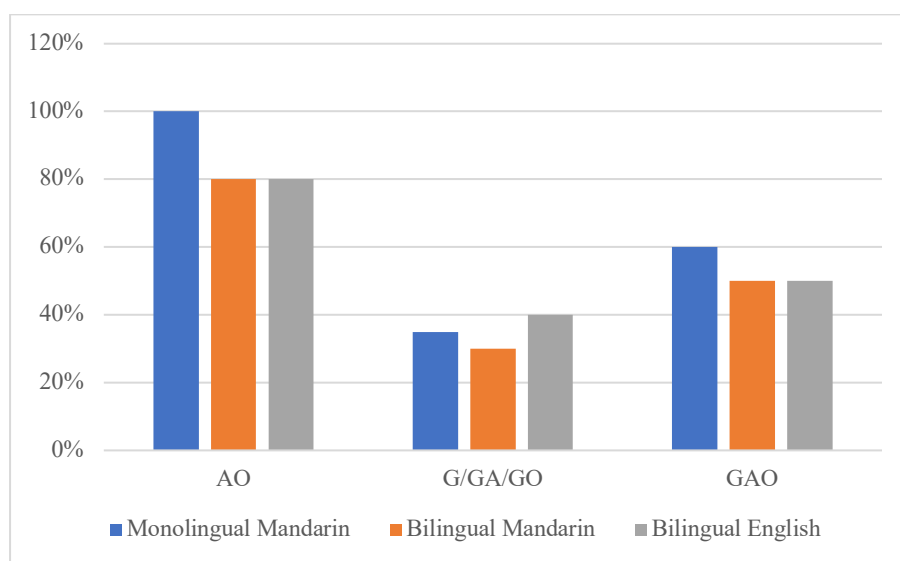


Figure 5.2 Structural complexity frequencies in Mandarin for the monolinguals and bilinguals, and in English for the bilinguals

5.2.3 Internal State Terms Production

5.2.3.1 Total Number of Internal State Terms Produced by the Monolinguals and Bilinguals

The descriptive results relating to the total number of internal state terms produced per narrative for the monolinguals in Mandarin, and for the bilinguals in two languages, are presented in Table 5.10. When a Mann-Whitney U test was conducted to compare the total number of ISTs produced in Mandarin by the monolingual and bilingual children, a significant difference was found ($U = 74$, $z = -3.42$, $p < 0.001$) whereby monolingual children produced significantly more IST per narrative ($M = 10.75$, $SD = 5.87$) than the bilingual children ($M = 4.45$, $SD = 3.39$) (see Table 5.12). However, Figure 5.3 also makes clear that the total number of IST was relatively varied at the individual level for monolingual children, ranging from 2–21 IST produced per narrative.

In terms of the language effect (English vs Mandarin) on the bilingual children's total number of IST productions, no statistical difference was revealed from the paired sample t test ($t(19) = .210$, $p = .836$), as shown in Table 5.11.

Table 5.10

Total number of internal state terms (IST) per narrative of the monolinguals and bilinguals by language

Groups	Languages	Total Number of IST per Narrative		
		M	SD	Range
Monolinguals (n=20)	Mandarin	10.75	5.87	2–21
Bilinguals (n=20)	Mandarin	4.55	3.39	1–12
	English	4.45	2.62	1–11

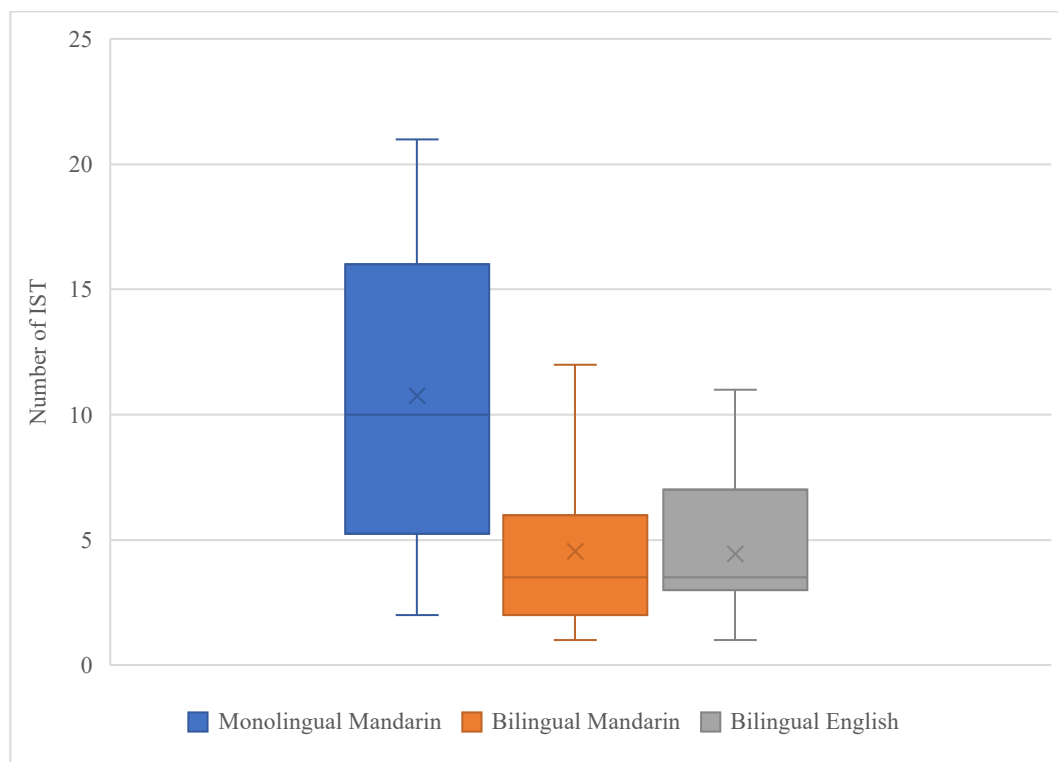


Figure 5.3 Number of IST produced per narrative in Mandarin for the monolingual and bilingual children, and in English for the bilingual children

Table 5.11

Paired sample t test between the total number of IST and languages of bilinguals

Pair	N	M	SD	t	df	Sig. (2-tailed)
Total Number of IST in Mandarin –Total Number of IST in English	20	.10	2.12	.21	19	.836

Table 5.12

Mann-Whitney U test comparing the total number of IST in Mandarin of the monolinguals and bilinguals

		Monolinguals (n=20)	Bilinguals (n=20)	z-value	p-value
		Mean rank	Mean rank		
Total Number of IST		26.80	14.20	-3.42	.001

5.2.3.2 Internal State Terms Categories

Before further interpreting the meaning of the above statistical results, the frequencies of IST category production were analysed. Six categories of IST were calculated in the coding and analysis process, namely perceptual state terms, (e.g., ‘see,’ ‘saw’), physiological state terms (e.g., ‘hungry’), consciousness terms (e.g., ‘aware’), emotion terms, (e.g., ‘happy,’ ‘sad’), mental verbs, (e.g., ‘want,’ ‘decide’), and linguistic verbs/verbs of saying/telling (e.g., ‘say’).

As shown in Table 5.13, all six categories of the IST were produced by the monolingual group. Among the six categories, the perceptual state terms (100%, n=20), and mental terms (90%, n=18) produced the largest number, whereas the emotion terms produced the fewest (45%, n=9) by the monolingual children.

For the bilingual children, six categories of the IST were produced in English, though no bilingual child produced consciousness terms in their Mandarin narratives. The frequency comparisons of the categories produced are shown in Figure 5.4. Similarly to their monolingual peers, the bilingual group produced more perceptual state terms (80% in Mandarin and English, n=16) and mental terms (90% (n=18) in Mandarin, 65% (n=13) in English) than other categories. In contrast to the monolingual children, the bilingual children also frequently produced the emotion terms (70%, n=14) in both their Mandarin and English narratives. However, the linguistic verbs were less frequently produced in Mandarin (25%, n=5) and in English (15%, n=3) compared to their monolingual peers (55%, n=11). Moreover, the bilingual children produced fewer physiological state terms in English (40%, n=8) and Mandarin (30%, n=6) than their

monolingual peers (60%, n=12).

As shown in Figure 5.4, when comparing the production of IST categories across languages, the bilingual children produced mental terms (90%, n=18) and linguistic verbs of saying/telling (25%, n=5) in Mandarin more frequently than in English (65% (n=13) for mental terms, and 15% (n=3) for linguistic verbs). However, they produced physiological terms slightly less frequently in Mandarin (30%, n=6) than in English (40%, n=8). Moreover, only one child produced consciousness terms in the narratives, and in English only.

Table 5.13

Frequencies of internal state terms (IST) produced by the monolinguals and bilinguals by language

IST category	Monolinguals	Bilinguals	
	(n=20)	(n=20)	
	Mandarin	Mandarin	English
	(%)	(%)	(%)
Perceptual	100	80	80
Physiological	60	30	40
Consciousness	25	0	5
Emotion	45	70	70
Mental	90	90	65
Linguistic verbs	55	25	15

Note: IST, internal state terms

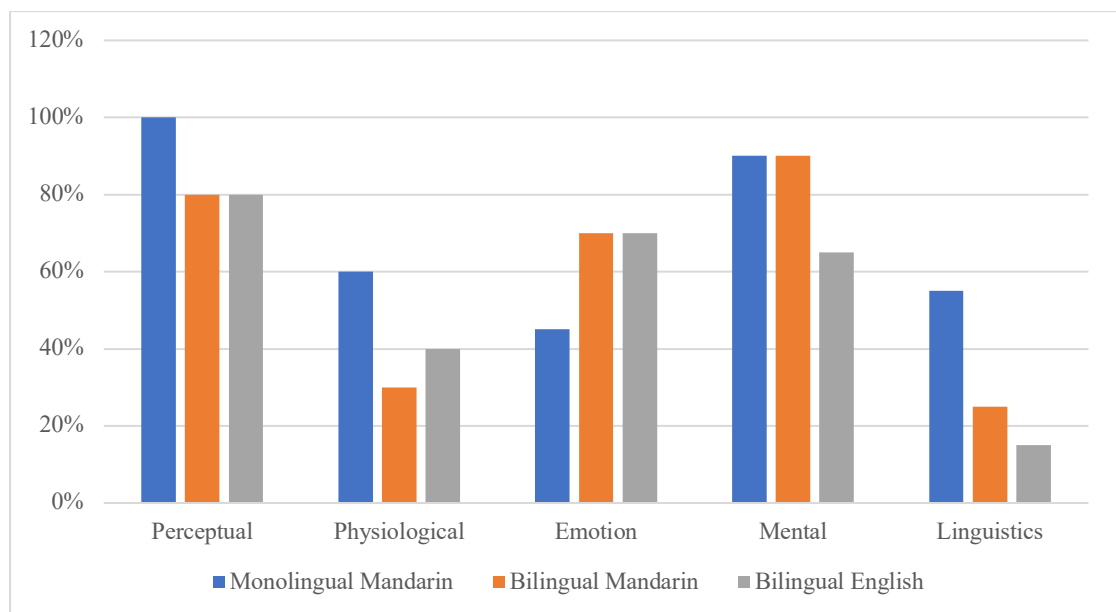


Figure 5.4 Production frequencies of IST categories in Mandarin for the monolinguals and bilinguals, and in English for the bilinguals

5.3 Microstructure Production

In this section, the general microstructural productivity of the children's narratives is presented. Due to the distinct typological difference between English and Mandarin, the comparison was conducted only on Mandarin narratives between monolingual and bilingual groups to answer RQ 1(c): *At the microstructural level, are the length and lexical complexity of narratives in Mandarin comparable between the bilingual and monolingual children?* The total number of utterances (TNU) in C-units, total number of words (TNW), number of different words (NDW), and mean length of utterance in words (MLUw) were measured for Mandarin narratives produced by the monolingual Mandarin-speaking children (n=20) and the bilingual English-Mandarin speaking children (n=20). The relevant data is presented in Table 5.14.

Table 5.14*TNU, TNW, NDW, and MLUw in Mandarin of the monolinguals and the bilinguals*

Groups	Languages	TNU	TNW	NDW	MLUw
		M(SD)	M(SD)	M(SD)	M(SD)
Monolinguals (n=20)	Mandarin	14.50 (4.17)	111.15 (32.68)	62.52 (15.08)	7.67 (.91)
Bilinguals (n=20)	Mandarin	11.25 (4.48)	81.60 (40.35)	42.75 (16.41)	7.07 (1.50)

To analyse cross-group differences between the monolingual and bilingual children, the Mann-Whitney U tests were conducted, the results of which are presented in Table 5.15. The differences between the monolingual and bilingual children were significant for all variables except MLUw. The results indicated that the monolingual children produce significantly more TNU ($U = 108$, $z = -2.49$, $p = .012$), TNW ($U = 106$, $z = -2.54$, $p = .010$), and NDW ($U = 72.5$, $z = -3.45$, $p = .001$) in Mandarin than their bilingual peers.

Table 5.15*Mann-Whitney U tests between microstructural productivity and group*

	Monolinguals (n=20)	Bilinguals (n=20)	Z-value	p-value
	Mean rank	Mean rank		
TNU	25.10	15.90	-2.49	.012
TNW	25.20	15.80	-2.54	.010
NDW	26.88	14.13	-3.45	.001
MLUw	23.35	17.65	-1.54	.123

5.4 Narrative Comprehension

To answer RQ 1(d), *Does the comprehension of narratives differ across the bilingual English-Mandarin children's two languages, and between the bilingual and monolingual children in Mandarin?*, the monolingual Mandarin-speaking and the bilingual English-Mandarin children's macrostructural comprehension is analysed quantitatively and qualitatively in this section.

5.4.1 Macrostructure Comprehension of the Monolinguals and Bilinguals

A total of 10 questions were asked after the completion of the storytelling tasks, to which the children were required to give answers about the characters' feelings and why the characters conducted certain actions to further indicate their comprehension of *IST as IE*, *IST as R*, and goal-directed behaviours. The descriptive results relating to the comprehension questions scores in Mandarin of the monolingual group and in Mandarin and English of the bilingual group are presented in Table 5.16. As shown in Figure 5.5, the distributions of the comprehension scores in Mandarin and English display kurtosis, with 80% (n=16) and 85% (n=17) bilingual children scoring 8 and above in Mandarin and English respectively.

Table 5.16

Comprehension scores of the monolinguals the bilinguals by language

Groups	Languages	Comprehension Score		
		M	SD	Range
Monolinguals (n=20)	Mandarin	6.38	1.31	3.5–8.5
Bilinguals (n=20)	Mandarin	8.15	1.31	4–10
	English	9.05	1.29	6–10

Note: Maximum score =10

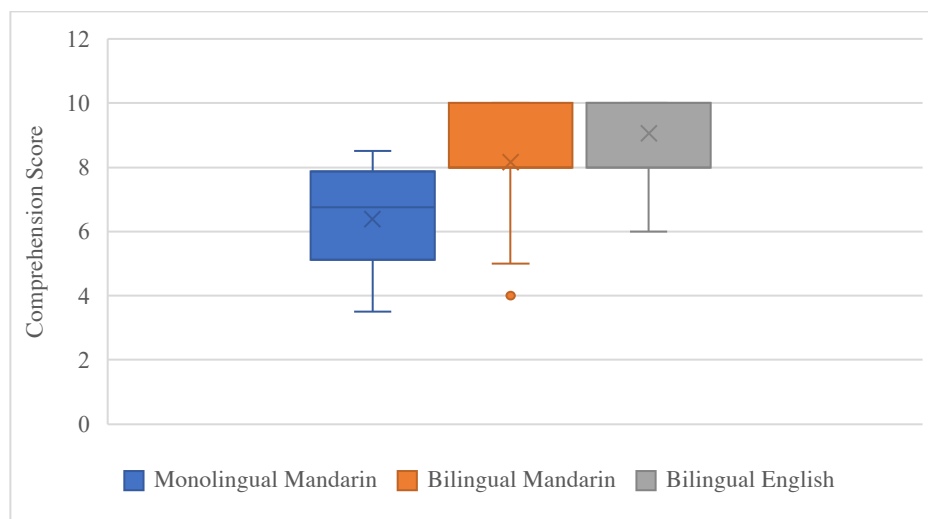


Figure 5.5 The distribution of the comprehension scores in the Mandarin and English narratives of the bilinguals, and in Mandarin narratives of the monolinguals

Child EMBC7 is a special case as the comprehension score of this child is significantly lower than the mean of 8.15 and is the only case that scored 4 out of 10 in answering the comprehension questions in the bilingual group. Comparing this child's perfect comprehension score in English, the conclusion could arguably be drawn that the child has no problem with understanding *IST as IE* and *IST as R*, and goal-directed behaviours. However, the reason for the child's low score when answering a similar question about the parallel material in Mandarin was the incomprehension of the word 'feel' (感觉) in question in Mandarin. When the child used '不知道 (*I don't know*)' and '没有感觉 (*I don't have a feeling*)' to answer questions about *IST as IE*, the present researcher chose to finish asking all the questions first, to which the child gave similar answers to the follow-up questions regarding *IST*. After the child had finished answering all the questions, the present researcher asked further questions about whether the child knew the meaning of '感觉 (feel)'. After the child expressed his incomprehension of '感觉 (feel)' in Mandarin, the experimenter translated this word into English and repeated the same question in Mandarin, whereupon the child was able to give the *IST* of characters as answers, indicating his understanding of the *IST*'s functions as the initiating events in the plotline. The child's correct answers to similar questions about the internal states of characters in the other story further corroborates this conclusion. However, the correct answers given after the translation were not

calculated for the reason that the child wasn't able to do it in the first instance. Child EMBC7 was the only case that expressed explicitly that the word in Mandarin was not understood.

For the purposes of this analysis, reference is first made to Bohnacker and Gagarina's (2020) suggestion to use a 6–7 scale to examine the understanding of the macrostructural components of children's narratives, which on average have been able to achieve by bilingual children between the ages of 5 and 6. When applying this standard to the results of this study, the score 7 was chosen by the present researcher for the reason that the children in the study were 9 years old and would be expected to acquire the comprehension skills and demonstrate consistent performance in the tasks. As shown in Table 5.17, the bilingual children's comprehension ability of macrostructural components indeed yield stable results, with 80% (n=16) scoring 7 and higher in Mandarin, and 90% (n=18) in English. In addition, 30% (n=6) and 60% (n=12) of the bilingual children scored a perfect 10 in Mandarin and English respectively. However, the monolingual group in this study did not perform as well as bilingual children in Mandarin. 50% of the monolingual children scored below 7 and none of them achieved a perfect 10 score.

Table 5.17

Number and percentage of the monolinguals and bilinguals scoring below and above 7 for the comprehension task

	Language	Score	N (Percentage)
Monolinguals (n=20)	Mandarin	Below 7	10 (50%)
		Above 7	10 (50%)
		Total	20 (100%)
Bilinguals (n=20)	Mandarin	Below 7	4 (20%)
		Above 7	16 (80%)
		Total	20 (100%)
	English	Below 7	2 (10%)
		Above 7	18 (90%)
		Total	20 (100%)

Note: Maximum score is 10

Second, the statistical difference between the bilingual children's two languages and the cross-group differences between monolingual and bilingual groups in Mandarin were analysed. It can be explicitly viewed from Figure 5.5 that the monolingual group performed better in terms of the macrostructure comprehension in Mandarin. As shown in Table 5.16 and 5.18, a Mann-Whitney U test was conducted to analyse the cross-group difference, which indicated that monolingual children ($Mdn = 6.75$) scored significantly lower in comprehension scores in Mandarin than their bilingual peers ($Mdn = 8.00$, $U = 84$, $z = -3.19$, $p = 0.001$). The result of a Wilcoxon Signed Ranks test to analyse within-group difference is presented in Table 5.19, which revealed no significant difference between the comprehension scores in Mandarin and English of the bilingual group ($z = -1.73$, $p = 0.083$).

Table 5.18

Mann-Whitney U test between Mandarin comprehension scores of the monolinguals and bilinguals

	Monolinguals (n=20)	Bilinguals (n=20)		
	Mean rank	Mean rank	z-value	p-value
Comprehension score	14.70	26.30	-3.19	.001

Table 5.19

Wilcoxon Signed ranks test between comprehension scores in Mandarin and English of the bilinguals

	Languages	N	z-value	p-value
Comprehension score	English	20	-1.73	.083
	Mandarin	20		

5.4.2 Macrostructural Comprehension of Individual Components

Following the quantitative analysis of the monolingual and bilingual children's macrostructural narrative comprehension, this section discusses the children's understanding of the narrative structural components qualitatively to further investigate their comprehension of goal-directed behaviours and internal state terms.

5.4.2.1 Children's Comprehension of Goal-directed Behaviours

Episodes in narratives consist of a *Goal*, an *Attempt*, and an *Outcome* of the *Attempt*. The *Goal* statement denotes the action that the characters want or decide to take, and the *Attempt* denotes the action to achieve the *Goal*. *Goal* expressions represent children's understanding of goal-directed behaviour. However, while not every authentic narrative contains explicit *Goal* expressions, it has been argued that this knowledge is stored mentally and invariably across languages (Stein & Glenn, 1975; Stein & Policastro, 1984). Therefore, in the story comprehension section, three questions were asked about why certain *Attempts* were made in the hope that the children's responses would reveal their understanding of goal-directed behaviours. In this way, if the children were unable to articulate *Goal* statements in their narratives, whether knowledge was stored mentally was revealed by their being able to provide the correct answers to the goal-related questions. In the *Baby Bird* and *Baby Goat* stories, each had three questions that asked about the goal-directed behaviours (Items D1, D4, and D7). The percentages of correct answers for these three questions are shown in Table 5.20 and Figure 5.6.

Table 5.20

Percentages of correct answers for questions D1, D4, and D7 by the monolinguals in Mandarin, and the bilinguals in English and Mandarin

Groups	Languages	Understanding of Goal-directed Behaviours		
		D1	D4	D7
		(%)	(%)	(%)
Monolinguals (n=20)	Mandarin	85	80	70
Bilinguals (n=20)	English	95	100	95
	Mandarin	100	95	80

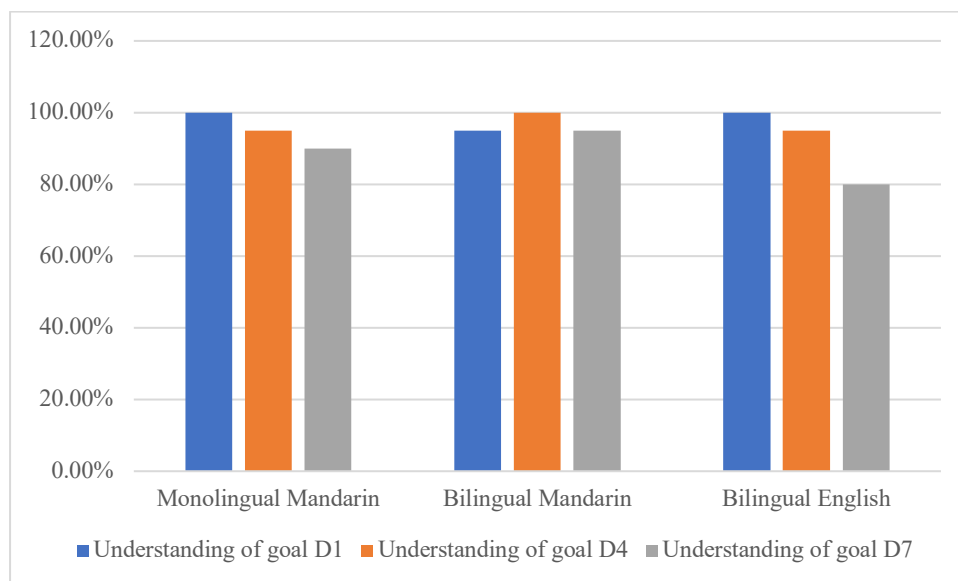


Figure 5.6 Percentages of correct answers for questions D1, D4, and D7 by the monolinguals in Mandarin, and the bilinguals in English and Mandarin

Since each child in the monolingual group has two opportunities to answer this type of question, 1 score was given as long as they gave the correct answer once. A total of 85% (b=17), 80% (n=16), and 70% (n=14) of the monolingual children were able to give the correct answers for questions D1, D4, and D6 respectively at least once for the two stories. For the monolingual group, it was not an isolated case that the children not

only gave the *Goal* that the character wanted or decided to achieve but also explained the reasons for taking that particular action rather than another, which was not present in the bilingual group's narrative production.

For example, in QD4 in the *Baby Bird* story 'Why is the cat climbing the tree?', the reason for taking this action was not given as purely about wanting/deciding to eat the birds (*Goal*) in some monolingual children's answers but more like climbing the tree is the only option for the cat at that moment, whereas other actions would not solve the current problem of 'not being able to eat the birds' and lead to successful results. Examples (1)–(2) were produced by the monolingual children in Mandarin to answer the question. More monolingual children gave similar descriptions of the cat's inability to fly and how high the nest was in the tree to justify the need for the cat to climb the tree. Moreover, as shown in example (3), one child in the monolingual group only described the need for a certain behaviour but did not answer the *Goal* of that behaviour.

(1) MMC3

因为 它 不 会 飞。

Yinwei ta bu hui fei.

Because it NEG can fly

'Because it cannot fly.'

要 想 吃 那 两 只 小 燕子，

Yao xiang chi na liang zhi xiao yanzi

If want eat those two CLF little swallow

'If [it] wants to eat those two little swallows,'

必须 得 爬 上 树。

Bixu dei pa shang shu

Must have to climb on tree

‘[It] has to climb on the tree.’

(2) MMC13

因为 它得 爬 树 才能 吃 掉 那些 小 鸟。

Yinwei ta dei pa shu caineng chi diao naxie xiao niao

Because it have to climb tree can eat COMPL those little bird

‘Because it has to climb the tree before it can eat those little birds.’

(3) MMC6

因为 鸟 巢 在 树 上。

Yinwei niao chao zai shu shang

Because bird nest at tree on

‘Because the birds’ nest is in the tree.’

它 拿 四肢 一点点 爬 上 去。

Ta na sizhi yidiandian pa shang qu

It use limb little climb up COMPL

‘It uses its limbs and climbs up little by little.’

Similarly, for the parallel QD4 in the *Baby Goat* story ‘*Why does the fox leap forward?*’, some of the monolingual children, instead of giving goal-related statements like ‘he wanted to eat the goats’, again answered the rationale for performing this sole ‘jump’ action in the story, either because the goat was far away from the fox or because it was the way the fox hunts for prey. Examples (4)–(5) were produced by the monolingual children in Mandarin to answer this question. Other monolinguals also provided answers like ‘*this is the method of predation of large animals, they all leap forward and then tear the animal*’ or ‘*Because the fox has perhaps not had a full meal for a long time, it looked at the lamb and thought the meat was very tasty, (the lamb) must taste very good, and then leaped forward*’ (translated from Mandarin). In these examples, the *Goal* was not explicitly expressed.

(4) MMC6

因为 那 只 小 羊 离 它 很 远。

Yinwei na zhi xiao yang li ta hen yuan

Because that CLF little lamb from it very far

‘Because that little lamb is very far from it.’

要 快速 扑 过去 小 羊 才 不 会 跑。

Yao kuaisu pu guoqu xiao yang cai bu hui pao

Need quickly leap forward little goat so that NEG will run

‘[It] needs to quickly leap forward so that the little lamb will not run.’

而且 旁边 没有 草 掩护 它。

Erqie pangbian meiyou cao yanhu ta

And beside NEG grass cover it

‘And there is no grass beside it to cover it.’

(5) MMC10

因为 只有 扑 才能 抓 住 小 羊。

Yinwei zhiyou pu caineng zhua zhu xiao yang

Because only leap can catch COMPL little lamb

‘Because the only way to catch the lamb is to leap forward.’

For QD7 in relation to the two questions ‘*Why does the dog grab the cat’s tail?*’ in the *Baby Bird* story and ‘*Why does the bird bite the fox’s tail?*’ in the *Baby Goat* story, some children in the monolingual group put the focus on ‘the tail’ instead of another body part of the animal, explaining in detail why the dog/bird in the stories chose the tail as the focus of their attack. Examples (6)–(7) were produced by the monolingual children in Mandarin to answer question D7 in both stories, while more monolingual children described how weak the cat/fox’s tail was.

Baby Bird story

(6) MMC13

因为 它 那 时候 尾巴 朝 下。

Yinwei ta na shihou weiba chao xia

Because it that time tail toward down

‘Because his tail was down at that time.’

猎狗 很 容易地 叼 住 它。

Liegou hen rongyide diao zhu ta

Hound very easily bite COMPL it

‘The hound bit it very easily.’

Baby Goat story

(7) MMC14

因为 尾巴 是 整 只 狐狸的 弱点。

Yinwei weiba shi zheng zhi hulide ruodian

Because tail is whole CLF fox-POSS weakness

‘Because the tail is the weakness of the cat.’

5.4.2.2 Children's Comprehension of Internal state Terms

Among the comprehension questions about the two stories, one out of 10 relate to understanding the *IST as IE* and another two out of 10 are for understanding the *IST as R*. That is, item D2 asks about the *IST as IE* as the motivation of certain actions, while item D5 and D8, asking about the *IST as R*, concern the feeling of the characters after the success or failure of completing the goal-directed behaviours. The percentages of correct answers to these three questions are shown in Table 5.21 and Figure 5.7. Discrepancies have been found in the comprehension of internal state terms by the monolingual and bilingual children.

Table 5.21

Percentages of correct answers for questions D2, D5, and D8 by the monolinguals in Mandarin and the bilinguals in English and Mandarin

Group	Languages	Understanding of IST		
		D2 (%)	D5 (IST as r) (%)	D8 (IST as r) (%)
Monolinguals (n=20)	Mandarin	90	70	50
Bilinguals (n=20)	English	90	90	75
	Mandarin	85	90	55

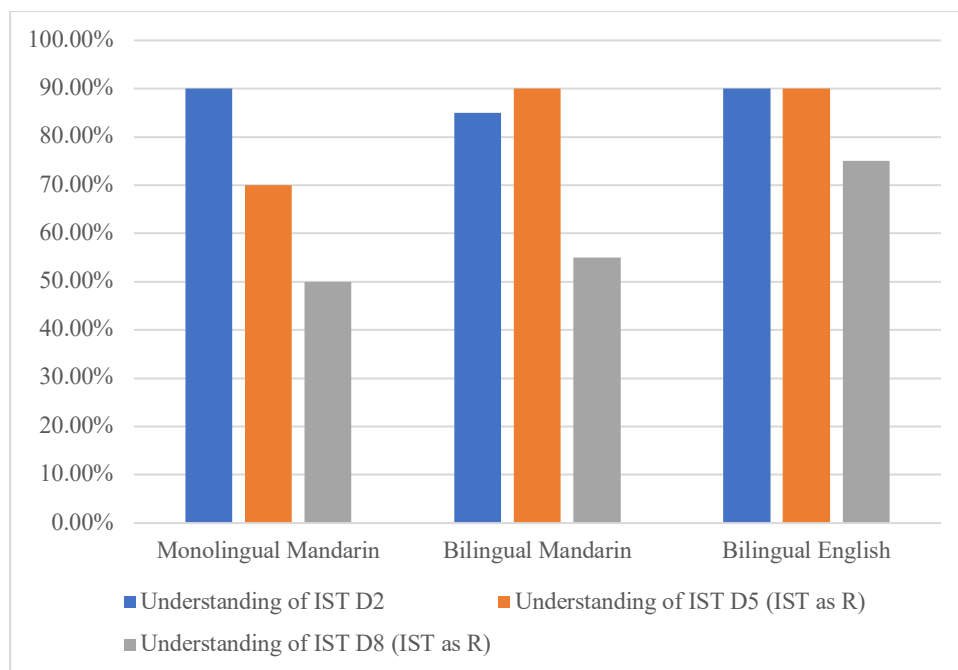


Figure 5.7 Percentages of correct answers for questions D1, D4, and D7 by the monolinguals in Mandarin and the bilinguals in English and Mandarin.

For the *Baby Bird* story, QD5, ‘How does the cat feel?’, is asking about the cat’s feeling when it got bitten on the tail and chased away by the dog. The internal state of the cat at this moment might be physiological state terms such as still ‘hungry (饿)’ or ‘hurt (疼)’, or emotion terms such as ‘disappointed (失望)’ or ‘scared (害怕)’. Similar answers were expected for the QD5 question, ‘How does the cat feel?’ in the *Baby Goat* story. Nearly all the bilingual children (n=19) were able to provide these two types of IST as answers in both languages for both stories, while some of the monolingual children (n=5) expressed the thoughts of the character in the character’s voice. Examples (8)–(11) were produced by the monolingual children in Mandarin to answer this question in the *Baby Bird* and *Baby Goat* stories.

Baby Bird story

(8) MMC4

谁 抓 我?

Shei zhua wo

Who grab me

‘Who’s grabbing me?’

(9) MMC5

它 会 想 我 被 人 发现 了。

Ta hui xiang Wo bei ren faxian le

It will think I PASS person find PST

‘It will think that ‘I was found.’ ’

我 赶紧 跑 吧。

Wo ganjin pao ba

I quickly run MOD

‘I will run away quickly.’

Baby Goat story

(10) MMC6

狐狸 心 里 想 这 顿 美 餐 又 跑 了。

Huli xin li xiang Zhe dun mei can you pao le

Fox heart in think this CLF delicious meal again go PST

‘The fox thinks that this delicious meal is gone again.’

(11) MMC 8

我 没 吃 着 羊 小 鸟 还 把 我 咬 了。

Wo mei chi zhao yang xiao niao hai ba wo yao le

I NEG eat COMPLgoat little bird also BA I bit PST

‘I didn't get to eat the lamb, and the bird bit me.’

Although the answers presented above indicate that the children who gave them understood that the question was about the internal state of the character, the children provided the characters' thoughts rather than their physiological or emotion states. In addition, rather than describing the internal state of the characters, some of the remaining children gave a description of the behaviours of the characters repeatedly. For example (12), in the answer in Mandarin of MMC8 to this question, even when the question ‘*How does the cat feel?*’ was repeated, the child seemed not be able to relate this question to the internal state of the cat and described the behaviours of the characters again *with the answer ‘The cat must have failed to catch the bird and was dragged down the tree by the dog.’*

(12) MMC8 (*Baby Bird story*)

我 觉得 小 猫 没 吃 着 那 两 只 鸟 。

Wo juede xiao mao mei chi zhao na liang zhi niao

I think little bird NEG eat COMPLthat two CFL bird

‘I think the cat didn’t eat the two birds.’

然后 那 只 狗 还 拽 那 只 小 猫 的 尾巴。

Ranhou na zhi gou hai zhuai na zhi xiao mao de weiba

Then that CLF dog also pull that CLF little cat POSS tail

‘Then the dog pulled the cat’s tail,’

小 狗 把 它 拽 下 树 去 了 。

Xiao gou ba ta zhuai xia shu qu le

Little dog ba it pull down tree COMPL PST

‘The dog pulled it down the tree.’

然后 把 小 猫 赶 跑 了 。

Ranhou ba xiao mao gan pao le

Then Ba little cat chase run PST

‘Then [the dog] chased the little cat away.’

This phenomenon was especially frequent when answering the QD8: *'Imagine that the dog (bird in the Baby Goats story) sees the birds (bird in the Baby Birds story). How does the dog (bird) feel?'* This question was asked about the internal state of the characters after they saved the bird or goat and chased away the attacker. The children were then expected to answer with the characters' emotion state, such as 'happy (开心)'. However, half of the children (n=10) in the monolingual group were not able to provide emotion state terms in Mandarin; instead, they described the thoughts or the behaviours of the characters again, as shown in examples (13)–(15).

Baby Bird story

(13) MMC2

小 狗 感觉 自己 救 了 两 只 宝宝。

Xiao gou ganjue ziji jiu le liang zhi bao3bao

Little dog feel self save PST two CLF baby

'The dog feels that he saved two little babies. '

(14) MMC 6

它 只 有 保护 小 鸟 的 感觉。

Ta zhi you baohu xiao niao de ganjue

It only have protect little bird de feeling

'It only has the feeling of protecting the birds. '

Baby Goat story

(15) MMC16

乌鸦 会 想 他们 终于 得救 了。

Wuya hui xiang tamen zhongyu dejiu le

Crow will think they finally save PRF

‘The crow will think that they are finally saved’.

Additionally, a bilingual child depicted the character’s behaviour in the Mandarin narrative, as shown in example (16). However, he explicitly described the character’s emotion as ‘proud’ in his English narrative, showing a marked difference from his Mandarin response.

(16) EMBC 20 (*Baby Bird story*)

它 会 想 它 保护 了 这些 鸟。

Ta hui xiang ta baohu le zhexie niao

It will think it protect PST these bird

‘It will think it protected the birds.’

Some monolingual children were able to provide emotion terms when answering this question; however, they tended to sympathise with the birds and express the latter’s emotions. Examples (17)–(18) are produced by the monolingual children in Mandarin to answer question D8 in the *Baby Bird* and *Baby Goat* stories, which generally contain positive emotions about the birds’ future.

Baby Bird story

(17) MMC19

小 狗 应该 想,

Xiao gou yinggai xiang

Little dog must think

‘The dog must have thought,’

小 鸟 们 会 幸福地 生活 吧。

Xiao niao men hui xingfude shenghuo ba

little bird PL will happily live MOD

‘The birds will live happily together.’

Baby Goat story

(18) MMC19

它 感觉 小 羊 一定 很 快乐 回 到 了 妈妈 身边。

Ta ganjue xiao yang yiding hen kuaile hui dao le mama shenbian

It feel little goat must very happy back ACH PFV mother side

‘It will feel that the baby goats must be happy to go back to their mother’s side.’

The bilingual children also displayed expressions of amplifying the sympathy the dog or eagle felt towards the birds or goats families in their narratives. One bilingual child, EMBC8, provided a similar expression in his English narrative, as shown in example (20), and another, EMBC 11, in his Mandarin narrative, as shown in example (19). Both examples contain only negative emotions in reference to what the bird and goat family had suffered. In other words, when answering this question, both the monolingual and bilingual children were not expressing the emotions of the character the question asked about but putting themselves in the place of other characters whose emotions they thought the given character should be able to perceive.

(19) EMBC 11

它 感觉 羊 妈妈 很 难过 很 害怕。

Ta juede yang mama hen nanguo hen haipa

It feels goat mother very sad very scared

‘It feels that the mother goat is very sad and scared.’

(20) EMBC8

The bird feels scared for the baby goat.

Furthermore, it was not exceptional for the children in the monolingual and bilingual groups to take the place of the characters in the story and give their own feelings in the voice of the characters. The answers in Mandarin to the question about *IST as R* from the child MMC17, as shown in example (21), perfectly demonstrate this. After hearing the child MMC17’s answer, the researcher further asked that why the child thought that the dog in the story would feel that the bird was very cute. However, the child answered ‘*I don’t know, but I felt the birds were cute*’ (translated from the answer in Mandarin). Meanwhile, examples (22)–(23) were also produced by the bilingual children in Mandarin.

(21) MMC17

感觉 小 鸟 非常的 可爱。

Ganjue xiao niao feichangde keai

Feel little bird very cute

‘[The dog] feels that the bird is very cute.’

(22) EMBC2

很 可爱。

Hen keai

Very cute

‘[It’s] very cute.’

(23) EMBC 3

可怜的 家伙。

Keliande jiahuo.

Poor thing

‘Poor thing.’

5.5 Cultural Expressions

A qualitative analysis of cultural expression in children's narrative production is presented in this section, aiming to answer RQ 3(d): *To what extent is the monolingual and bilingual children's narrative production associated with the cultural values of moral and introspective orientations, restrained emotional expression, and variations in relation to gender expectations?* The emotion expressions have been analysed in subsection 5.2.3 for production and 5.4.2.2 for comprehension. Therefore, this section focuses on children's expressions of morality and the gender difference between children's narrative production and comprehension.

5.5.1 Expressions of Moral Judgement

As hypothesised in Chapter 3, given the heightened sense of morality and self-reflection that comes with being socialised in Chinese family and social environment, Chinese children may not only acquire this value but internalise it as one that influences their narrative production. This inference was confirmed in the narratives produced by the monolingual children in this study. Both stories in the storytelling tasks, *Baby Bird* and *Baby Goat*, contain episodes in which the characters' behaviours can be judged socially and morally. In the second episode of the *Baby Bird* story, the cat wanted to eat the baby birds (*Goal*) because the cat was hungry (*IST as IE*). In order to fulfil the *Goal*, the cat first hid behind the tree and then climbed up it and grabbed one of the baby birds while the mother bird was not watching (*Attempt*). In a similar plotline in the second episode of the *Baby Goat* story, the fox wanted to eat the baby goats (*Goal*) because the fox was hungry (*IST as IE*). To do this, the fox tried to eat one of the baby goats by first hiding behind the tree and then jumping out to catch the baby goat while the mother goat was not watching (*Attempt*). As new characters appear in the second episode, although both the cat and the fox acted out of a physiological state of hunger, their behaviours were considered as 'qualified' for moral judgment in the eyes of the monolingual Mandarin-speaking children. Moral evaluation was provided in response to the behaviours of the cat and fox in the narrative. The following example (24) shows that the monolingual child gave the moral judgement that the behaviours of the cat in the story were wrong immediately after describing the act of the cat catching the bird.

(24) MMC1(*Baby Bird story*)

然后 一 只 狗 看见 了。

Ranhou yi zhi gou kanjian le

Then one CLF dog see PFV

‘Then a dog saw it.’

看 到 这 个 猫 抓 这些 鸟。

Kan dao zhe ge mao zhua zhexie niao

See ACH this CLF cat catch these bird

‘[The dog] saw the cat catching the birds.’

狗 觉得 这 个 猫 做 得 很 错误。

gou juede zhe ge mao zuo de hen cuowu

dog think this CLF cat do POT very wrong

‘The dog thought what the cat was doing is wrong.’

In answering the comprehension questions, the monolingual children’s responses also conveyed moral judgments from the Chinese cultural context. For example, in response to the question ‘*Why does the dog grab the cat’s tail?*’, which is asking about children’s understanding of the goal of the third episode of the *Baby Bird* story, one child, as shown in example (25), responded not on the basis of the dog’s internal state, i.e. the dog bit the cat’s tail because it did not want the cat to eat the bird. However, the monolingual child believed that the dog’s action was determined by its moral sense that the cat’s behaviour of eating the bird was wrong and should not be carried out. In

other words, the emphasis in the child's answer was on the character's sense of morality triggering certain actions, rather than the internal state of the character which was the answer originally expected.

(25) MMC20 (*Baby Bird story*)

因为 小 狗 觉得 不 应该 吃 小 鸟。

Yinwei xiao gou juede bu yinggai chi xiao niao

Because little dog think NEG should eat little bird

'Because the little dog thinks [the cat] shouldn't eat the little bird.'

Next, the following question '*What does the cat feel?*' was asked to examine the children's understanding of the characters' internal states. The cat may have felt hungry, sad, or scared after it tried to catch the bird but was stopped and its tail was bitten by the dog. When asked to express the feelings of the character, instead of providing an internal state term, the moral judgment was again provided by monolingual children. As the following two examples, (26) and (27), illustrate, the monolingual children both expressed the thoughts of the characters after they had been stopped from doing 'bad things', i.e. the cat and the fox after their tails had been bitten by the dog and the eagle respectively. The child in (26) thought that the cat should be able to realise that his behaviour was 'not good', whereas the child in (27) thought that the fox should understand that similar 'wrong' behaviour should not happen again in the future. They both judged, from a moral standpoint, that the characters who had done the bad thing should eventually learn from it, recognise their mistakes and correct their behaviours to avoid similar behaviours happening again.

(26) MMC 1 (*Baby Bird story*)

它 觉得 自己 做的 不 太 好。

Ta juede ziji zuode bu2 tai hao.

It think self do-NMLZ NEG very good

‘It thinks that what it’s doing is not very good.’

(27) MMC14 (*Baby Goat story*)

它 觉得 以后 不 能 再 趁 羊 妈妈 不 注意 去 吃 小 羊。

Ta juede yihou bu neng zai chen yang mama bu zhuyi qu chi xiao yang

It think after NEG can again when goat mother NEG notice go eat little goat

‘It thinks he cannot eat the lamb again when the mother is not paying attention in the future.’

When being asked the D8 question for both stories, ‘*Imagine that the dog sees the birds. How does the dog feel?*’ (*Baby Bird story*) and ‘*Imagine that the bird sees the goats. How does the bird feel?*’ (*Baby Goat story*), the monolingual Mandarin children did not give emotional terms (e.g., ‘happy’, ‘proud’) to answer how the character who had just saved the weaker animal felt. Rather, the answers given again contain judgments about the correctness of the behaviours. In contrast to the behaviours of the cat or fox in these two stories, those of the dog and the crow were considered by the monolingual children to be ‘good’ and morally acceptable, as demonstrated by the examples (28)–(29)

(28) MMC4 (*Baby Bird story*)

它 感觉 自己 做 了 好 事。

Ta ganjue ziji zuo le hao shi

It feel self do PST good thing

‘It feels that it did something good.’

(29) MMC9(*Baby Bird story*)

它 觉得 这 是 一 件 很 光荣的 事情。

Ta juede zhe shi yi jian hen guangrongde shiqing

It feel this is a CLF very glory thing

‘It feels this is a glorious thing.’

When being further asked why they thought that the dog/bird felt in the way they described in the previous question, moral judgement was also provided. For instance, in example (30), the monolingual child further judged the dog in the story to be a kind animal and added to this judgement background knowledge that was not contained in the content of the story but may present itself in real life. As can be seen from the examples above, some children did not intend to describe the character’s emotions as a reaction to the outcome of the behaviour when answering questions addressing the character’s internal states but rather focused more on providing the moral judgement of the character’s behaviours.

(30) MMC4(*Baby Bird story*)

狗 都 是 非常 忠诚的。

gou dou shi feichang zhongchengde

dog all is extremely loyal

‘Dogs are very loyal.’

它 只 吃 狗 骨头 或者 狗 粮。

Ta zhi chi gou gutou huozhe gou liang

It only eat dog bone or dog food

‘It only eats dog bones or dog food.’

一 点 都 不 会 害 别的 动物。

Yi dian dou bu hui hai biede dongwu

A bit all NEG will hurt other animal

‘[It] not at all will hurt other animals.’

这个 故事 里 它 是 善良的。

zhege gushi li ta shi shanliangde

this story in it is kind

‘In this story it is kind.’

In other words, the attitudes or judgments expressed here were not exclusively those of the characters in the story but of the narrator. The narrator's judgment concerned whether the characters' actions were morally approved (good) and what the characters should do, or morally disapproved (bad) and what the characters should not do. However, this type of judgement was not presented in the narrative production in Mandarin of the bilingual group in this study.

5.5.2 Gender Differences

As reviewed in Chapter 3, Chinese culture's distinct expectations of men and women may result in differences in their narrative expressions. Therefore, the gender differences in monolingual children and bilingual children's narrative production are included in this section's cultural analysis. It is examined regarding the potential differences between boys and girls microstructural productivity, macrostructural productivity, and IST productivity.

5.5.2.1 Gender Differences in Microstructural Productivity

The results of the mean and standard deviation of the micro-structural productivity of boys and girls in terms of the TNU in C-units, TNW, NDW and MLUw in the monolingual and bilingual groups are shown in Table 5.22.

Table 5.22

TNU, TNW, NDW and MLUw in Mandarin of the monolinguals by gender, and in Mandarin and English of the bilinguals by gender

Group		G	N	M	SD
Bilinguals (n=20)	TNU _m	M	7	11.14	4.74
		F	13	11.31	4.53
	TNW _m	M	7	83.43	38.95
		F	13	80.61	42.61
	NDW _m	M	7	42.00	17.15
		F	13	43.15	16.69
	MLU _{wm}	M	7	7.43	1.81
		F	13	6.87	1.34
	TNW _e	M	7	123.86	32.99
		F	13	91.77	40.59
	NDW _e	M	7	61.00	16.57
		F	13	52.54	15.68
	MLU _e	M	7	10.89	2.45
		F	13	9.50	3.21
	TNU _e	M	7	11.43	1.90
		F	13	9.77	2.77
Monolinguals (n=20)	TNU _m	M	10	14.35	4.56
		F	10	14.65	3.97
	TNW _m	M	10	109.65	30.51
		F	10	112.65	36.31
	NDW _m	M	10	63.50	16.41
		F	10	61.55	14.45
	MLU _{wm}	M	10	7.74	1.01
		F	10	7.59	0.83

Note: G, gender; TNU_m, total number of utterances in C-units in Mandarin; TNW_m, total number of words in Mandarin; NDW_m, number of different words in Mandarin; MLU_{wm}, mean length of utterance in words in Mandarin; TNU_e, total number of utterances in C-units in English; TNW_e, total number of words in English; NDW_e, number of different words in English; MLU_{we}, mean length of utterance in words in English; M, male; F, female.

For the bilingual group's Mandarin narratives, boys produced on average a greater total number of words ($M = 83.43$, $SD = 38.95$) and mean length of utterance ($M = 7.43$, $SD = 1.81$) in words, and a lower total number of utterances ($M = 11.14$, $SD = 4.74$) and total number of different words ($M = 42.00$, $SD = 17.25$) than girls. However, according to the Mann-Whitney U tests (Table 5.23), none of the differences are statistically significant in terms of the microstructural productivity between boys and girls in this group (TNUm, $U = 42$, $z = -.28$, $p = .817$; TNWm, $U = 42$, $z = -.278$, $p = .817$; NDWm, $U = 41.5$, $z = -.31$, $p = .757$; and MLUwm, $U = 39$, $z = -.516$, $p = .643$). In the bilingual group's English narratives, boys outperformed girls on average to a large extent on all four measurements of micro-productivity. A Mann-Whitney U test (Table 5.24) only found significant difference in the total number of words ($U = 18.5$, $z = -2.14$, $p = .030$). However, no significant differences were found for the other three variables (TNUe, $U = 29$, $z = -1.32$, $p = .211$; NDWm, $U = 26.5$, $z = -1.50$, $p = .135$; and MLUwm, $U = 30.5$, $z = -1.18$, $p = .241$).

Table 5.23

Mann-Whitney U tests between microstructural productivity and gender of bilingual children

		Bilingual Boys (n=7)	Bilingual Girls (n=13)		
Language	Variables	Mean rank	Mean rank	Z-value	p-value
Mandarin	TNU	10.30	10.70	-.15	.912
	TNW	10.45	10.55	-.04	.971
	NDW	11.20	9.80	-.59	.631
	MLUw	10.14	10.69	-.45	.684
English	TNU	12.86	9.23	-1.32	.211
	TNW	14.36	8.42	-2.14	.030
	NDW	13.21	9.35	-1.50	.135
	MLUw	12.64	9.38	-1.19	.241

Table 5.24

Mann-Whitney U tests between microstructural productivity and gender of the monolingual children

Variables	Monolingual Boys (n=10)	Monolingual Girls (n=10)	Z-value	p-value
	Mean rank	Mean rank		
TNU	10.30	10.70	-.15	.912
TNW	10.45	10.55	-.04	.971
NDW	11.20	9.80	-.59	.631
MLUw	10.14	10.69	-.45	.684

5.5.2.2 Gender Differences in Macrostructural and IST Productivity

As shown in Table 5.25, in the case of the bilingual group's Mandarin narratives, boys produced on average a greater total number of IST ($M = 5.82$, $SD = 2.89$) and various IST categories ($M = 5.82$, $SD = 2.89$). However, girls performed better on the production score of macrostructural components ($M = 8.15$, $SD = 2.82$), structure complexity ($M = 4.08$, $SD = 1.26$), and comprehension score ($M = 8.3$, $SD = 1.55$). In English, similarly, boys performed better on average on the production of the total number of IST ($M = 5.29$, $SD = 2.87$) and various IST categories ($M = 3.14$, $SD = 1.46$) but scored lower on the macrostructural production score ($M = 8.43$, $SD = 2.44$) and structure complexity ($M = 3$, $SD = 1.63$). Unlike in Mandarin, however, boys also scored higher on average on comprehension scores in English ($M = 9.29$, $SD = 1.47$) than girls ($M = 8.92$, $SD = 1.38$). Nonetheless, after conducting the Mann-Whitney U tests (Table 5.26), no significant statistical difference was found ($p > 0.05$) between the macrostructural production score, structure complexity score, total number of IST, and various IST categories production of bilingual boys and girls in Mandarin and English respectively. Furthermore, with the comprehension scores of bilingual children, the results from the Mann-Whitney U tests indicated no significant difference between bilingual boys' and girls' comprehension scores in English ($U = 37.5$, $p = 0.536$, $r = 0.16$, and in Mandarin, $U = 42$, $p = 0.817$, $r = 0.048$).

Table 5.25

Production score, comprehension score, structure complexity, and total numbers of IST in Mandarin narratives of the monolinguals by gender, and in Mandarin and English narratives of the bilinguals by gender

		G	N	M	SD
Bilinguals- Mandarin (n=20)	Macrostructural	M	7	7.29	2.29
	Production Score	F	13	8.15	2.82
	Comprehension	M	7	7.86	2.19
	Score	F	13	8.3	1.55
	Structure	M	7	2.86	1.07
	Complexity	F	13	4.08	1.26
	IST Category	M	7	3.00	0.82
		F	13	2.85	1.14
	Numbers of IST	M	7	4.71	3.64
		F	13	4.46	3.41
Bilinguals- English (n=20)	Production Score	M	7	8.43	2.44
		F	13	9.00	2.00
	Comprehension	M	7	9.29	1.49
		F	13	8.92	1.38
	Structure	M	7	3.00	1.63
		F	13	3.62	1.12
	Numbers of IST	M	7	5.29	2.87
		F	13	4.00	2.48
Monolinguals- Mandarin (n=20)	Production Score	M	10	9.05	1.18
		F	10	8.25	2.37
	Comprehension	M	10	6.30	1.78
		F	10	6.45	1.40
	Structure	M	10	3.60	0.77
		F	10	3.55	1.70
	Number of IST	M	10	12.5	5.29
		F	10	9.00	6.14

Note: G = gender; M = male; F = female; IST = internal state terms

Table 5.26

Mann-Whitney U tests between macrostructural and IST productivity and gender of bilingual children

Language	Variables	Bilingual Boys (n=7)	Bilingual Girls (n=13)	Z-value	p-value
		Mean rank	Mean rank		
Mandarin	Production	9.43	11.08	-.59	.588
	Total Score				
	Comprehension	10.00	10.77	-2.91	.817
	Total Score				
	Structure	7.21	12.27	-1.88	.067
	Complexity				
English	Total number of IST	10.14	10.69	-2.00	.877
	Production	9.07	11.27	-.80	.438
	Total Score				
	Comprehension	11.64	9.88	-.72	.253
	Total Score				
	Structure	8.93	11.35	-.89	.393
	Complexity				
	Total number of IST	12.57	9.38	-1.17	.275

In terms of the monolingual group, girls performed on average better on their comprehension scores ($M = 6.45$, $SD = 1.40$), while boys performed better on their production scores ($M = 9.05$, $SD = 1.18$), macrostructural complexity ($M = 3.60$, $SD = 0.77$), and the total number of IST produced ($M = 12.5$, $SD = 9.00$). However, as shown in Table 5.27, no significant statistical differences were derived from the Mann-Whitney U tests, ($p > 0.05$). Similarly to the comprehension scores, no significant difference could be concluded ($U = 47.5$, $z = -.19$, $p = 0.853$).

Table 5.27

Mann-Whitney U tests between macrostructural and IST productivity and gender of the monolinguals

Variables	Monolingual Boys (n=10)	Monolingual Girls (n=10)	Z-value	p-value
	Mean rank	Mean rank		
Production Total Score	11.65	9.35	-.87	.393
Comprehension Total Score	10.25	10.75	-.19	.853
Structure Complexity	11.50	9.50	-.76	.481
Total number of IST	12.20	8.80	-1.28	.821

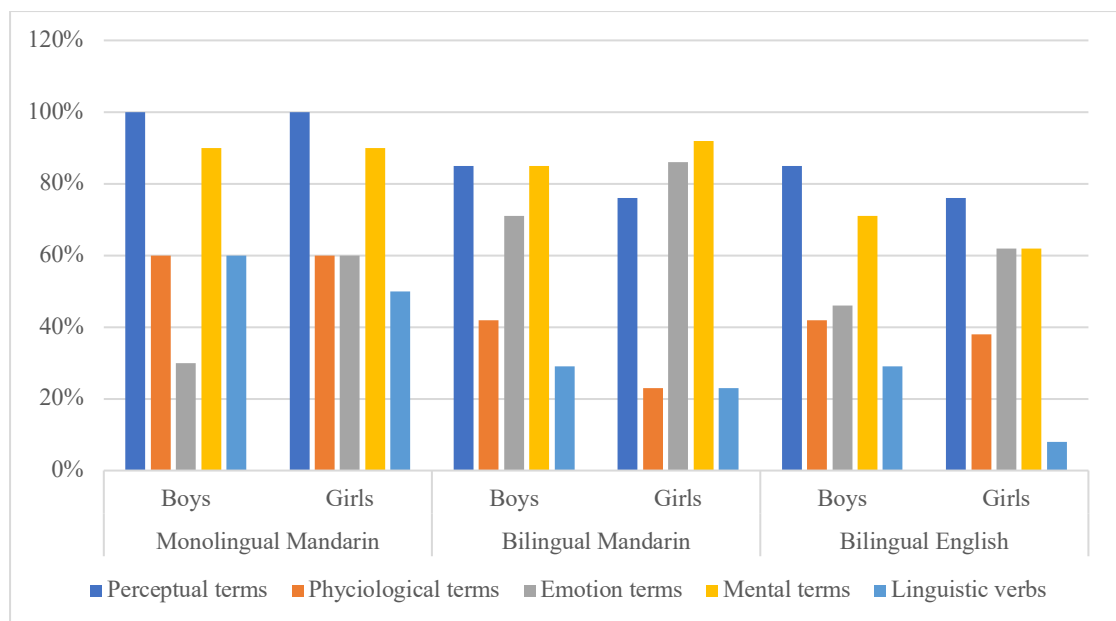


Figure 5.8 Internal state term categories produced in Mandarin narratives of the monolingual children by gender, and in English and Mandarin narratives of the bilingual children by gender

When looking at the distribution of percentages of the IST categories produced by the boys and girls in different languages in each group, and despite the contradictory results of the effect of gender on other categories, the results of the production of emotion terms and linguistic verbs seem to be consistent cross-group, according to Figure 5.8. Fewer boys than girls produced emotion terms in the monolingual group and in both English and Mandarin in the bilingual group, while more boys than girls produced the linguistic verbs in the monolingual group and in both English and Mandarin in the bilingual group.

5.6 Summary of the Findings

In this section, the analysis of the results aiming to answer the following research questions are summarised, including all sub-questions raised for RQ 1 and one sub-question for RQ 3.

1(a) At the macrostructural level, does the production of macrostructural components, macrostructural complexity, and internal state terms differ across the bilingual English-Mandarin children's two languages?

1(b) At the macrostructural level, does the production of macrostructural components, macrostructural complexity, and internal state terms in Mandarin differ between the bilingual and monolingual children?

1(c) At the microstructural level, are the length and lexical complexity of narratives in Mandarin comparable between the bilingual and monolingual children?

1(d) Does the comprehension of narratives differ across the bilingual English-Mandarin children's two languages, and between the bilingual and monolingual children in Mandarin?

3(d) To what extent is the monolingual and bilingual children's narrative production (as measured in Question 1) associated with the cultural values of moral and introspective orientations, restrained emotional expression, and variations in relation to gender expectations?

5.6.1 Macrostructural Components Production

- (a) The English-Mandarin bilingual children scored significantly higher in English than in Mandarin in terms of the total number of macrostructural components (Table 5.2).
- (b) The English-Mandarin bilingual children produced significantly more *Attempt* in English than in Mandarin (Table 5.2).
- (c) In Mandarin, the monolingual children and the English-Mandarin bilingual children performed similarly on the total number of macrostructural components produced (Table 5.4).
- (d) In Mandarin, *Setting* was produced by nearly twice as many monolingual children (n=19) as bilingual children (n=11) (Table 5.5).
- (e) In Mandarin, less than half as many monolingual children (n=4) were able

to produce *IST as R* as bilingual children (n=9) (Table 5.5).

- (f) All the monolingual children's Mandarin narratives and all the bilingual children's English and Mandarin narratives contained the production of *Attempt* and *Outcome* (Table 5.5).
- (g) Compared to other components, the *IST as R* was least produced in narratives of bilingual children in both languages (n=9 in Mandarin, n=10 in English) and for monolingual children (n=4) (Table 5.5).

5.6.2 Macrostructural Complexity

- (a) The English-Mandarin bilingual children produced similar macrostructural complexity in their English and Mandarin narratives (Table 5.7).
- (b) In Mandarin, the monolingual children's narratives produced similar macrostructural complexity to their bilingual peers (Table 5.8).
- (c) A total of 60% of the monolingual children (n=12) were able to produce the complete GAO episodes once in their Mandarin narratives (Table 5.9).
- (d) A total of 50% of the bilingual children (n=10) were able to produce the complete GAO episodes at least once in their English or Mandarin narratives (Table 5.9).

5.6.3 Internal State Terms

- (a) The English-Mandarin bilingual children produced a similar number of internal state terms in their English and Mandarin narratives (Table 5.11).
- (b) In Mandarin narratives, the English-Mandarin bilingual children produced significantly more internal state terms than their monolingual peers (Table 5.12).
- (c) Regarding the IST categories, the English-Mandarin bilingual children were able to produce mental terms (n=18) and linguistic verbs (n=5) in Mandarin more than in English (n=12 for mental terms and n=3 for linguistic verbs) (Table 5.13).
- (d) Regarding the IST categories, the English-Mandarin bilingual children were less able to produce physiological terms (n=6) in Mandarin than in English (n=8) (Table 5.13).

- (e) Regarding the IST categories produced in Mandarin, more monolingual children were able to produce the physiological terms (n=12) and linguistic verbs (n=11) than the bilingual children (n=6 for physiological terms, n=5 for linguistic verbs) (Table 5.13).
- (f) Regarding the IST categories produced in Mandarin, far fewer monolingual children (n=9) were able to produce the emotion terms than the bilingual children (n=14) (Table 5.13).

5.6.4 Microstructural Production

- (a) In Mandarin, the English-Mandarin bilingual children had significantly smaller TNU, TNW, and NDW than their monolingual peers (Table 5.15).

5.6.5 Narrative Comprehension

- (a) Half of the monolingual children (n=10) scored below 7 in Mandarin (Table 5.17).
- (b) A total of 80% (n=16) and 90% (n=18) of the English-Mandarin bilingual children scored above 7 in Mandarin and English respectively (Table 5.17).
- (c) The English-Mandarin bilingual children showed similar narrative comprehension competence in their two languages (Table 5.19).
- (d) In Mandarin, the monolingual children scored significantly lower in comprehension than the English-Mandarin bilingual children (Table 5.18).
- (e) The monolingual children in Mandarin and the English-Mandarin bilingual children in their two languages showed nearly perfect competence of understanding the *Goal* and *IST as IE* (Tables 5.20; 5.21).
- (f) In Mandarin, the monolingual children exhibited lower accuracy when answering questions about *IST as R* than the English-Mandarin bilingual children (Table 5.21).

5.6.6 Cultural Expressions

- (a) In production in Mandarin, the monolingual children's Mandarin narratives contain moral judgments and evaluations of the right and wrong

behaviour of characters (example 24).

- (b) In Mandarin, the monolingual children also expressed moral judgments about characters' behaviours in their responses to the comprehension questions (examples 25–30).
- (c) The English-Mandarin bilingual children used moral expressions neither in storytelling tasks nor in their answers to the comprehension questions.
- (d) In comprehension in Mandarin, when answering questions about *Goal*, some monolingual children (n=8) provided thorough explanations of the characters' behaviours to justify their choices about conducting certain actions than the others (examples 1–7).
- (e) In comprehension in Mandarin, when answering questions about *IST as R*, some monolingual children (n=6) and one bilingual child described the characters' behaviours again, instead of providing the internal state terms of the characters (examples 8–16).
- (f) In comprehension in Mandarin, when answering questions about *IST as R*, some monolingual children (n=2) and bilingual children (n=4) expressed their own feelings about other story characters when bringing themselves into the role of the story character being asked (examples 17–19, 21–23), rather than responding to the feelings of the character being asked. One bilingual child also made this type of expression in comprehension in English (example 20).
- (g) In the microstructural production, English-Mandarin bilingual boys only outperformed girls on the TNW in English (Table 5.23)
- (h) With the English-Mandarin bilingual children, the boys' and girls' narratives did not show significant differences on the macrostructural production nor on the production of their IST (Table 5.26).
- (i) For the monolingual children in Mandarin, the boys' and girls' narratives did not show significant differences on the micro- and macrostructural production nor on the production of their IST (Table 5.24; 5.27).
- (j) For both the monolingual and bilingual children, the boys tended to produce more linguistic verbs, while girls tended to produce more emotional terms (Figure 5.8).

Chapter 6

Results: Language Input, Proficiency, and Narrative Activities at Home

6.1 Introduction

This chapter provides descriptive data from the questionnaires completed by parents. The questionnaire results will be presented in two sets based on the language to which the children are exposed, namely the monolingual Mandarin group and the bilingual English-Mandarin group. Section 6.2 presents the data of the bilingual children's English and Mandarin language input and examines the influence that the bilinguals' language input has on their narrative production. Next, the data of language proficiency in English and Mandarin of the bilinguals and the impact that the language proficiency in two languages has on their narrative production is reported in Section 6.3. Section 6.4 reports on the narrative activities performed regularly at home by the bilingual children in Mandarin and English, and the monolingual children in Mandarin. The impact of narrative activities on the narrative production of the monolingual and bilingual children is also analysed. Finally, a summary of the data results is provided in Section 6.5.

6.2 Language Input and the English-Mandarin Bilingual Children

In this section, to answer RQ 2(a), *Do the relative language inputs in English and Mandarin have an impact on the Mandarin-English bilingual children's narrative production in the two languages?*, the data surrounding children's language exposure and input gathered from questionnaires is summarised first (sub-section 6.2.1), after which the impact of input on the bilingual children's narrative production is analysed statistically (sub-section 6.2.2).

6.2.1 Language Exposure and Input

For the bilingual group, all the parents (n=20) reported that their children (n=20) were exposed to Mandarin and English on a regular basis, none of whom were reported to be regularly exposed to or to speak any of the Chinese dialects/other languages. All

the children were reported to have been exposed to Mandarin since birth. However, English was reported to be the second language to which the children were exposed, 70% of whom (n=14) were reported to have been exposed to English before age 1. A total of 10% (n=2) and 20% (n=4) of the bilingual children were exposed to English after age 1 and age 2 respectively. The descriptive data concerning the age of the bilingual children's first exposure to Mandarin and English is shown in Table 6.1.

In addition, three parents of the bilingual children identified Irish as the language to which their child was exposed at school. Although Irish is a compulsory language in primary education in Ireland and a primary school child is required to have at least 2½ hours of Irish lessons a week (National Council for Curriculum and Assessment, 2016), the number of fluent speakers is small, and there are very few opportunities to speak the language outside the Gaeltacht areas (Darmody & Daly, 2015). Since no children in this study attended Irish-medium schools, it is unlikely that they were exposed to Irish in school for longer than the prescribed period of time and apart from Irish language lessons. As a result, Irish was excluded from the languages to which the bilingual children were regularly exposed.

Table 6.1

Age of first exposure to Mandarin and English of the bilinguals

Age	Exposure to English	Exposure to Mandarin
	n	n
0–1	14	20
1–2	2	0
2–3	4	0
Total	20	20

In regard to English and Mandarin language input, parents were asked to choose the proportion of their child's exposure to different languages on a daily basis, for which 5 categories were provided: 0% Mandarin, 25% Mandarin, 50% Mandarin, 75% Mandarin, and 100% Mandarin. 60% of the parents (n=12) indicated that their child was exposed to Mandarin at 25% and to English at 75% on a daily basis; and 40% (n=8) reported that their children's Mandarin and English input were in equal

proportions of 50% each per day. According to the parents' reports, no child was exposed to more Mandarin than English on a daily basis. In addition to the home environment, all parents reported that their children had been exposed to Mandarin at Mandarin-language schools on weekends, six of whom reported that their children had also been exposed to Mandarin via friends and technology. The descriptive data percentages relating to the dual language exposure of the bilingual children are shown in Table 6.2 below.

Table 6.2

Parental estimates of the daily exposure to English and Mandarin for the bilinguals

Language Input	n
0% Mandarin, 100% English	0
25% Mandarin, 75% English	12
50% Mandarin, 50% English	8
75% Mandarin, 25% English	0
100% Mandarin, 0% English	0
Total	20

6.2.2 The Influence of Input on the Bilingual Children's Narrative Production

According to the results of parents' estimations of the dual language input of bilingual children in the previous subsection, the bilingual children can be divided into two groups: those with 25% Mandarin (n=12) and 50% Mandarin (n=8). In this setting, to examine the influence of input on the bilingual children's narrative production, an independent *t* test is used, the results of which are shown in Table 6.3 and 6.4. The results indicate that we cannot reject the null hypothesis for any reasonable p-value for any of the tested variables. Therefore, the results suggest that it seems that the input percentages, at least based on the measurements of this study, do not significantly influence the narrative in any measurable way at both microstructural and macrostructural levels.

Table 6.3

Independent-sample t test results: Macrostructural production in English and Mandarin by language input

	25% Mandarin	50% Mandarin	<i>t</i> (18)	Sig. (2-tailed)
	input	input		
	M(SD)	M(SD)		
Total macrostructural components in Mandarin	7.25(2.18)	8.75(3.10)	−1.27	.219
Total macrostructural components in English	8.75(2.14)	8.88 (2.23)	−.126	.901
Macrostructural Complexity in Mandarin	3.25 (1.36)	4.15 (1.04)	−1.77	.095
Macrostructural Complexity in English	3.33 (1.50)	3.50 (1.07)	−.27	.789
IST in total in Mandarin	4.83 (3.66)	4.13 (3.13)	.45	.660
IST in total in English	5.00 (3.05)	3.63 (1.69)	1.16	.262

Table 6.4

Independent-sample t test results: Microstructural production in English and Mandarin by language input

	25% Mandarin input	50% Mandarin input	<i>t</i> (18)	Sig. (2-tailed)
	M (SD)	M (SD)		
TNUm	11.42 (4.70)	11.00 (4.44)	.19	.845
TNUe	10.75 (2.63)	9.75 (2.54)	.84	.411
TNWm	87.00 (44.91)	73.50 (33.53)	.72	.478
TNWe	114.83 (44.48)	85.25 (26.79)	1.68	.110
NDWm	43 (15.81)	42.38 (18.38)	.08	.936
NDWe	56.83 (17.34)	53.50 (14.94)	.46	.653
MLUwm	7.36 (1.64)	6.63 (1.22)	1.07	.299
MLUwe	10.75 (3.36)	8.85 (1.96)	1.44	.167

6.3 Language Proficiency and the English-Mandarin Bilingual Children

To answer RQ 2(b), *Does the bilingual children's language proficiency in Mandarin and English have an impact on their narrative production in the two languages?*, two raters assessed the bilingual children's proficiency levels in English and Mandarin, the results of which are shown in Table 6.5. The degree of agreement between the two raters was high (85%), and the proficiency level of only three children needed to be discussed. This is reflected in Table 6.5. Following a discussion between the present researcher and the second rater, the Mandarin proficiency level of children EMBC8 and EMBC10, as well as the English proficiency level of child EMBC17, were unanimously agreed upon. The bilingual children had a high level of English proficiency (B2–C1), according to both raters, but their Mandarin proficiency varied from B1–C1. The bilingual children could be further divided into two groups based on their language proficiency ratings: balanced bilingual children (n=10) who had comparable proficiency levels of English and Mandarin; and unbalanced bilingual children (n=10) who had lower proficiency levels of Mandarin than English. Furthermore, the majority of the children in the unbalanced group received a Mandarin proficiency level rating of B1. A statistical analysis of the effect of language proficiency on the bilingual children's narrative production was conducted after comparing the results of these two groups.

Table 6.5*Rating on the bilinguals' English and Mandarin proficiency levels by two raters*

Child ID	English (1 st Rater)	English (2 nd Rater)	Mandarin (1 st Rater)	Mandarin (2 nd Rater)
EMBC1	C1	C1	C1	C1
EMBC2	B2	B2	B1	B1
EMBC3	C1	C1	C1	C1
EMBC4	C1	C1	B1	B1
EMBC5	B2	B2	B2	B2
EMBC6	C1	C1	C1	C1
EMBC7	C1	C1	C1	C1
EMBC8	C1	C1	B2 (B2 was agreed)	B1
EMBC9	B2	B2	B2	B2
EMBC10	C1	C1	C1 (C1 was agreed)	B2
EMBC11	B2	B2	B2	B2
EMBC12	B2	B2	B1	B1
EMBC13	C1	C1	C1	C1
EMBC14	B2	B2	B1	B1
EMBC15	B2	B2	B2	B2
EMBC16	B2	B2	B1	B1
EMBC17	C1	B2(B2 was agreed)	B1	B1
EMBC18	C1	C1	B1	B1
EMBC19	C1	C1	B1	B1
EMBC20	B2	B2	B1	B1

Language proficiency in both languages does not seem to affect bilinguals' narrative comprehension, as 80% ($n=16$) of the bilinguals scored 7 or higher out of 10. If we include the bilinguals who scored 6, which is the standard suggested by Bohnacker and Gagarina (2020), we have 90% ($n=18$) of the bilinguals, indicating that their performance at the group level was approaching the ceiling (see Table 5.20). Manual checks were performed on the remaining 10% of bilinguals ($n=2$), one of whom was in the balanced group and the other in the unbalanced group. As a result, rather than focusing on comprehension, this researcher decided to focus on the impact of language proficiency on narrative production. Further supporting this decision is the fact that this study found that the bilinguals ($n=20$) scored significantly lower in Mandarin than in English in terms of the total number of macrostructural components as well as the *Attempt* produced (see Table 5.2), despite the fact that their narratives in two languages had comparable structural complexity (see Table 5.7).

Therefore, a comparison was made between the balanced bilinguals ($n=10$) and unbalanced bilinguals ($n=10$) regarding their production of the total number of macrostructural components, *Attempt* and macrostructural complexity in Mandarin and English, using the independent-sample t test. The results reported in Table 6.6 show a significant difference in the production of the total number of macrostructural components in Mandarin between the balanced and unbalanced groups. The balanced bilinguals produced significantly more macrostructural components in total ($M = 9.60$, $SD = 2.12$) than the unbalanced group ($M = 6.10$, $SD = 1.79$, $t(18) = 3.99$, $p = .001$, mean difference 95% CI [1.66, 5.34]) in Mandarin. In terms of the production of the total number of macrostructural components in English, the production of *Attempt* and macrostructural complexity in both Mandarin and English, no significant difference was detected ($p > 0.05$) between the balanced and unbalanced groups.

Table 6. 6

Independent-sample t test: macrostructural production scores in English and Mandarin by group

			Balanced Group (n=10) M (SD)	Unbalanced Group (n=10) M (SD)	$t(18)$	Sig. (2- tailed)
Total number of components (Mandarin)			9.60 (2.12)	6.10 (1.79)	3.99	.001
Total number of components (English)			9.60 (1.95)	8.00 (2.05)	1.78	.091
Attempt (English)			2.90 (.32)	2.40 (.69)	1.76	.96
Attempt (Mandarin)			2.40 (.84)	1.90 (.87)	1.41	.175
Complexity (English)			3.9 (1.28)	2.9 (1.19)	1.79	.089
Complexity (Mandarin)			4.2 (1.55)	3.1 (.74)	2.03	.058

6.4 Narrative Activities at home

In this section, data is analysed with the aim of answering RQ 2(c), *What are the similarities and differences between English and Mandarin in terms of narrative activities at home for the bilingual children? And what are the similarities and differences between narrative activities at home for the monolingual and bilingual children in Mandarin?* and RQ 2(d), *Do narrative activities conducted at home have an impact on the bilingual Mandarin-English children's narrative production in two languages, and on the monolingual children's narrative production in Mandarin?* The monolingual and bilingual children's Mandarin narrative activities, and the bilingual children's narrative activities across languages, are compared first in sub-section 6.4.1. In sub-section 6.4.2, the correlation analysis is then presented.

6.4.1 Monolingual and Bilingual Children's Narrative Activities at Home

Parents were asked to choose the narrative activities their children regularly do at home, including (a) reading books by themselves; (b) reading books with others; (c) telling stories about what happened at school; (d) telling stories about what they read at school; (e) listening to songs and singing; (f) watching TV/DVDs/computer games; (g) talking about TV/DVDs/computer games that they watched; (h) doing role plays with toys; (i) doing role plays with friends/siblings; and (j) other activities. Since no parent reported narrative-related activities other than the items provided in the questionnaire, item (j), representing 'others', was excluded from the analysis. Furthermore, parents were asked to report the frequency of conducting each narrative activity at home, with 4 options provided: '1' (representing 'never'); '2' (representing 'twice a month'); '3' (representing 'once or twice a week'); and '4' (representing 'almost every day').

First, to analyse the frequency of narrative activities by types, activities parents choosing values '3' for 'once or twice a week' and '4' for 'almost every day' were considered by the researcher as 'activities conducted frequently'. Furthermore, the activities were divided into three broad categories (interactive; receptive (reading and listening); and productive (speaking and writing)), the results of which are shown in Table 6.7. For monolingual children, watching TV/ DVDs/computer games (n=19), reading books by themselves (n=18), and telling stories about what happened at school (n=17) were the three most frequent narrative activities that the children did at home. In contrast, the three main activities children did least often at home were reading books with others (n=4), talking about what they had read at school (n=6), and doing role plays with friends/siblings (n=7).

Table 6.7

Bilingual and monolingual children frequently engaged in different narrative activities by Language

	Bilinguals (n=20)		Monolinguals (n=20)
	English	Mandarin	Mandarin
	n	n	n
Interactive			
Reading books with others	13	8	4
Telling stories about what happened at school	14	12	16
Telling stories about what they read at school	15	5	6
Talking about TV/DVDs/computer games that they watched	15	7	12
Doing role plays with friends/siblings	9	3	7
Receptive			
Reading books by themselves	20	13	18
Listening to songs and singing	17	7	11
Watching TV/DVDs/computer games	18	7	19
Productive			
Doing role plays with toys	10	1	7
Writing stories	10	1	18

For the bilingual children, as shown in Figure 6.1, narrative activities in English, reading books by themselves (n=20), watching TV/DVDs/computer games (n=18), and listening to songs and singing (n=17) were more frequently done than other activities, while doing role plays with toys (n=10) or siblings (n=9) and writing stories (n=10) were the least frequently conducted activities at home. In Mandarin, reading books by themselves (n=13) and telling stories about what happened at school (n=12) were two activities that were frequently done at home by the bilingual children. Similar to the activities in English, doing role plays with toys (n=10) or friends/siblings (n=3) and writing stories (n=1) were the least frequently conducted activities, yet the percentages

of number of children conducting these activities in Mandarin were significantly lower than in English. In fact, as Figure 6.1 clearly illustrates, the bilingual children in this study generally performed every type of narrative activity more regularly in English than in Mandarin. Moreover, as shown in Figure 6.1, only the frequencies of telling stories about what happened at school in English and Mandarin are close, with other activities showing much more different frequencies in English and Mandarin.

A qualitative comparison was also made between the monolingual and bilingual children in regard to narrative activities done in Mandarin. As is clear from Figure 6.2, the bilingual children regularly performed narrative activities less frequently than monolingual children, especially for activities like watching TV/DVDs/computer games, doing role plays with toys/friends/siblings, and writing stories.

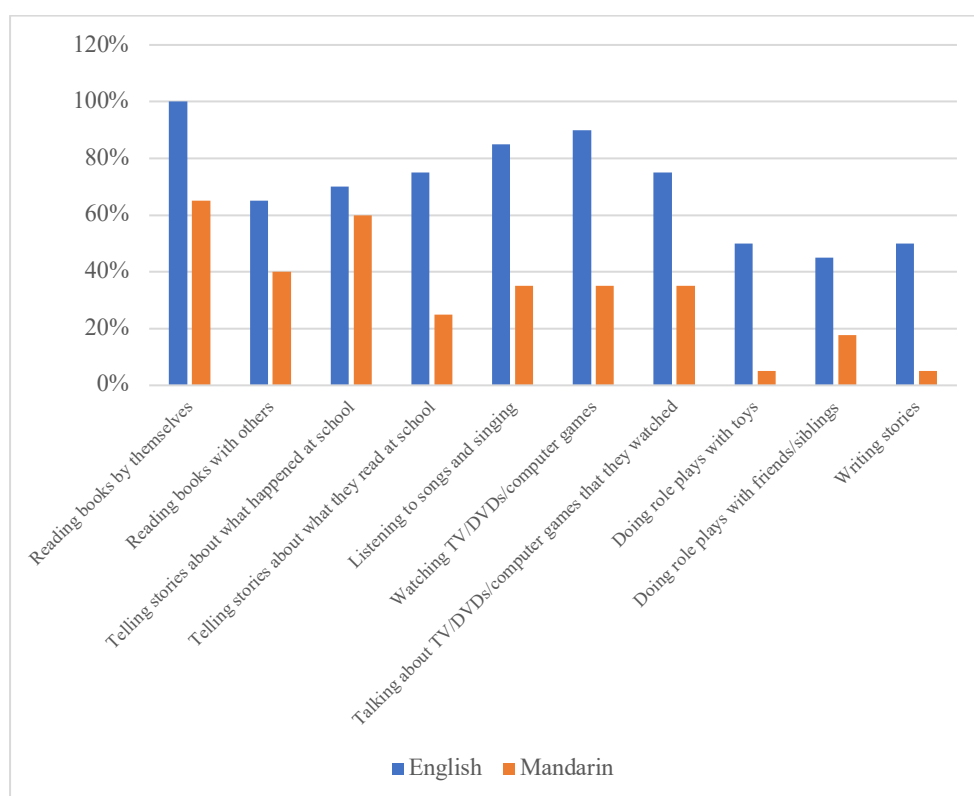


Figure 6.1 Narrative activities conducted in Mandarin and in English by the bilingual children

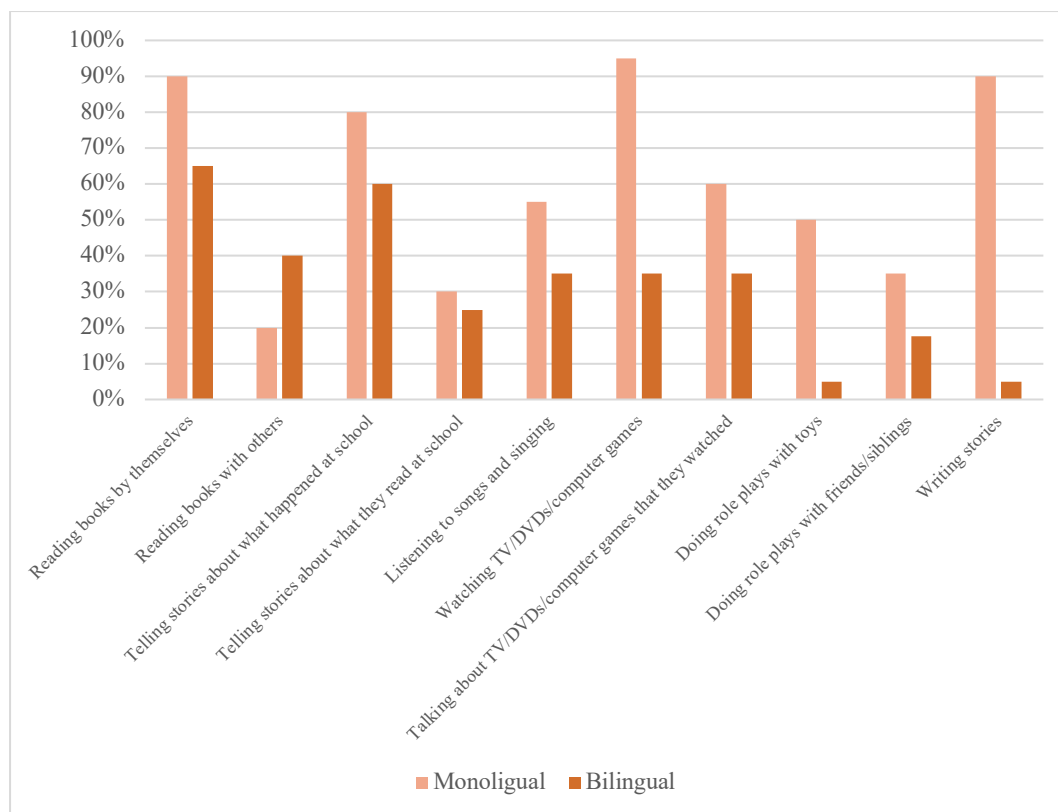


Figure 6.2 Comparison of narrative activities conducted in Mandarin between the monolingual and bilingual children

Second, to examine the cross-group statistical differences between the monolingual and bilingual children, and cross-language statistical differences between English and Mandarin of the bilingual children, the 4 values (1 = never, 2 = twice a month, 3 = once or twice a week, and 4 = almost every day) of 10 variables of narrative activities for different languages of each child was combined and the sum frequency was calculated for statistical analysis, as shown in Table 6.8. The Mann-Whitney U test was performed to test the difference between the monolingual and bilingual children. The results indicate that the bilingual children ($Mdn = 19.50$) exhibit a significantly lower frequency of narrative activities in Mandarin at home than the monolingual children ($Mdn = 26.00$), $U = 76$, $z = -3.366$, $p = 0.001$ (Table 6.9). Regarding the difference between Mandarin and English at home for the bilingual children, the result of the paired sample t test suggests that the bilingual children conduct narrative activities in English ($M = 28.30$, $SD = 4.96$) more frequently than in Mandarin ($M = 19.55$, $SD = 6.20$). This difference is statistically significant: $t(19) = 7.42$, $p < 0.001$ (Table 6.10).

Table 6.8

Mean, standard deviation, and range of frequency of narrative activities of the monolinguals and bilinguals by language

Groups	Languages	Frequency of Narrative activities		
		M	SD	Range
Monolinguals (n=20)	Mandarin	26.30	3.93	19–34
Bilinguals (n=20)	Mandarin	19.55	6.20	11–29
	English	28.30	4.96	19–36

Table 6.9

Mann-Whitney test between frequency of narrative activities in Mandarin of the monolinguals and bilinguals

	Monolingual	Bilingual	Z-value	p-value
	Children (n=20)	Children (n=20)		
	Mean rank	Mean rank		
Mandarin				
Narrative activities	26.70	14.30	–3.36	.001

Table 6.10

Paired sample t test between frequency of narrative activities in Mandarin and English of the bilinguals

	M	SD	t	df	Sig. (2-tailed)
Mandarin Narrative activities– English Narrative activities	8.75	5.27	7.42	19	.001

6.4.2 The Correlation of Narrative Activities with Children's Narrative Competences

The correlation between narrative activities and children's narrative competences measured by production and comprehension scores in storytelling tasks was analysed. This correlation was first examined using the sum frequency of narrative activities, since significant differences were found between the monolingual and bilingual children in Mandarin, and between Mandarin and English for the bilingual children. Subsequently, the sum frequency of each category (interactive, receptive, and productive) was analysed to further examine their correlation with children's narrative comprehension and production competences.

With regards to the sum frequency of all narrative activities, Pearson correlation tests were run. Results for the monolingual group are shown in Table 6.11 and for the bilingual children in Table 6.12. For the monolingual children, the frequency of Mandarin narrative activities at home was positively correlated with the children's production of total number of macrostructural components in storytelling tasks ($r = .46$, $p = .039$, $n = 20$). However, a significant correlation was not found between Mandarin narrative activities at home and comprehension scores ($r = .36$, $p = .117$, $n = 20$). For the bilingual children, the frequencies of narrative activities at home were weakly correlated with their narrative production and comprehension scores in both languages.

Table 6.11

Correlation between two variables and sum frequency of narrative activities for the monolinguals

Measure	1	2
1. Sum Frequency	—	—
2. Production Scores	.465*	—
3. Comprehension Scores	.361	.196

* Correlation is significant at the 0.05 level (2-tailed)

Table 6.12

Correlation between two variables and sum frequency of narrative activities for the bilinguals

Measure	1	2
1. Sum Frequency in Mandarin	—	—
2. Mandarin Production Scores	.128	—
3. Mandarin Comprehension Scores	-.018	.314
Measure	1	4
1. Sum Frequency in English	—	—
4. English Production Scores	.021	—
5. English Comprehension Scores	.131	.360

As to the relationship between the sum frequency of interactive, receptive, and productive activities, and children's narrative competences, Pearson's correlation results are presented in Table 6.13 for the monolingual children and in Table 6.14 for the bilingual children. The frequencies of interactive and productive activities for monolingual children were significantly correlated with their Mandarin production scores. However, for the bilingual children, a medium-sized correlation was found only between the frequency of their productive activities in English and their English comprehension scores. Null results were found between interactive and receptive activities, and their narrative skills in both languages.

Table 6.13

Correlation between two variables and sum frequency of interactive, receptive and productive narrative activities for the monolinguals

Measure	1	2	3
1. Sum Frequency of Interactive Activities	—	—	—
2. Sum Frequency of Receptive Activities	—	—	—
3. Sum Frequency of Productive Activities	—	—	—
4. Production Scores	.448*	-.039	.526*
5. Comprehension Scores	.389	.098	.353

*Correlation is significant at the 0.05 level (2-tailed)

Table 6.14

Correlation between two variables and sum frequency of interactive, receptive and productive narrative activities for the bilinguals

Measures in Mandarin	1	2	3
1. Sum Frequency of Interactive Activities	—	—	—
2. Sum Frequency of Receptive Activities	—	—	—
3. Sum Frequency of Productive Activities	—	—	—
4. Production Scores	.129	.057	.207
5. Comprehension Scores	.019	-.141	.149
Measures in English	1	2	3
1. Sum Frequency of Interactive Activities	—	—	—
2. Sum Frequency of Receptive Activities	—	—	—
3. Sum Frequency of Productive Activities	—	—	—
4. Production Scores	-.046	-.128	.233
5. Comprehension Scores	.370	.182	.488*

*Correlation is significant at the 0.05 level (2-tailed)

6.5 Summary of Findings

The data findings analysed in this chapter aim to answer the following sub-questions of RQ2:

- (a) Do the relative language inputs in English and Mandarin have an impact on the Mandarin-English bilingual children's narrative production in the two languages?
- (b) Does the bilingual children's language proficiency in Mandarin and English have an impact on their narrative production in the two languages?
- (c) What are the similarities and differences between English and Mandarin in terms of narrative activities at home for the bilingual children? What are the similarities and differences between narrative activities at home for the monolingual and bilingual children in Mandarin?
- (d) Do narrative activities conducted at home have an impact on the bilingual Mandarin-English children's narrative production in two languages, and on the monolingual children's narrative production in Mandarin?

This data analysis section is divided into three parts: language input and bilingual children's narrative production, language proficiency and bilingual children's narrative production, and narrative activities at home and children's narrative production and comprehension. The following findings are reported in this chapter:

- (a) For the bilingual children, relative language input in English and Mandarin has no effect on their narrative production at microstructural and macrostructural levels (Table 6.3–4).
- (b) The balanced bilingual group outperformed the unbalanced group significantly in Mandarin in terms of the total number of macrostructural components but not the *Attempt* component and macrostructural complexity (see Table 6.6).
- (c) The bilingual children conduct narrative activities significantly more frequently in English than in Mandarin (Table 6.10).
- (d) In Mandarin, the bilingual children conduct narrative activities significantly less frequently in comparison to their monolingual peers (Table 6.9).

- (e) For monolingual children, the frequency of their narrative activities in Mandarin was positively correlated with their Mandarin comprehension and production skills (Table 6.11).
- (f) For different types of Mandarin narrative activities of monolingual children, interactive and productive activities frequencies were positively correlated with their Mandarin narrative production competences (Table 6.13).
- (g) For the bilingual children, neither the frequency of narrative activities in Mandarin nor in English was strongly related to their comprehension and production skills in the two respective languages (Table 6.12).
- (h) For the different types of narrative activities of the bilingual children, a strong correlation was found only between the productive activities in English and bilingual children's comprehension scores in English (Table 6.14).

Chapter 7

Results: Children's Narrative Socialisation at Home and at School

7.1 Introduction

This chapter presents the results from eight interviews with five parents (Parents A, B, and C in Ireland and Parents D and E in China) and three teachers (Teachers B and C in Ireland and Teacher A in China) regarding the monolinguals' and bilinguals' narrative socialisation at home and at school. All of the interviews were conducted in Mandarin and translated verbatim into English (Appendix D). Since the analysis of the results focused on the content of the interviewees' responses rather than their language use, in this chapter the transcribed segments presented are English-translated versions for presentation purposes.

- (1) Parent C: For narrative skills, the premise is that they have to speak clearly and express themselves clearly, which is a prerequisite for social interaction. If they do not have the ability to say things clearly or politely or euphemistically, it will easily have a negative impact on the relationship between them and their peers, and on their future relationships with others, or on their future jobs. So, I personally feel that the narrative development is really important.

As stated above by Parent C in the interview, the parents and teachers of both the monolingual and bilingual children in this study identified the development of narrative skills as important – not only for the children's language skills but also for their social skills, interpersonal relationships, and future employment. The parents of the monolingual and bilingual children also expressed different attitudes toward shared various stories about, and provided different comments on, the development of their children's narrative skills in English and Mandarin. For example, the bilingual children's parents indicated that they were less concerned about their children's English narrative development and rated their children's English narrative skills higher due to the sociolinguistic environment. They had positive attitudes toward their children's maintenance of the language and learning of traditional Chinese culture but believed that their children's Mandarin comprehension and narrative skills were not as strong as

in English. The monolingual children's parents, on the other hand, self-evidently placed their focus more on other aspects of narrative competence, such as vocabulary diversity, content integrity, and clarity of expression, rather than on language proficiency. This chapter will thematically analyse in detail the information provided by parents and teachers by in two sections, namely family and school environments. The analysis of each section is presented in terms of the following sub-themes: parent/teacher-child interaction (7.2.1 and 7.3.1); siblings/peer-child interactions (7.2.2 and 7.3.2); and narrative activities in family and school contexts (7.2.3 and 7.3.3). Next, the realisation of the three Chinese culture values in question in the interviews, namely moral and introspective orientations, restrained emotional expression, and gender orientations, is presented. The comparative outcomes of these sub-themes for monolingual children and bilingual children are further discussed in relation to the cultural values to answer RQ3 and its sub-questions.

- (a) To what extent are the monolingual and bilingual children's family narrative socialisation practices associated with the cultural values of moral and introspective orientations, restrained emotional expression, and variations in relation to gender expectations (as discussed in Section 3.2.3)?
- (b) To what extent is the monolingual and bilingual children's school-based instruction associated with the cultural values of moral and introspective orientations, restrained emotional expression, and variations in relation to gender expectations?
- (c) What are the similarities and differences between the monolingual and bilingual children's family narrative socialisation practices and school-based instruction?
- (d) To what extent is the monolingual and bilingual children's narrative production (as measured in Question 1) associated with the cultural values of moral and introspective orientations, restrained emotional expression, and variations in relation to gender expectations?
- (e) How does the influence of culture on family narrative socialisation practices and school-based instruction impact children's narrative production?

7.2 Narrative Socialisation in Family Environment

7.2.1 Parent-child interaction

The parents and teachers of the bilingual children pointed out in the interviews the imbalance between the latter's Mandarin and English narrative development and the fact that 9–10-year-olds may not be able to use Mandarin for complex, in-depth narrating other than daily communication. First, in regard to the bilingual family language policy, the bilingual parents in the interviews pointed out that they initiated more communication with their children in Mandarin but that they had no strict rule as to which language their children used to respond. According to the interview, the bilingual children more willingly and more often expressed themselves in English. In terms of parent-child interactions, the parents reported that their children frequently talked to them about what had happened at school and exchanged thoughts. However, the bilingual children generally used English when communicating with their parents unless they were specifically asked to use Mandarin.

The parents did not attribute this language preference in parent-child interactions to a deficiency in their children's cognitive development but rather to the fact that the children's Mandarin vocabulary and narrative skills had not developed sufficiently at this age to allow for fully consistent expressions with their cognitive development. However, their more advanced English narrative skills could fulfil this function. As shown below, Teacher C, whose child participated in the study, specifically described her child during the interview as follows:

- (2) Teacher C: Their accumulation of words, however, is not at that level. He is 9 years old, he only has a little subconscious expression, but he can find a suitable word to describe it in English, but his Chinese vocabulary is a big limitation for him. He cannot find a very appropriate word to express his current mood. He can only use very simple and superficial words such as 'happy', 'unhappy', and 'angry'. But this is not enough to express what he is really thinking inside. Also, [...] he would sometimes say the word might be different from his mind. He translates the English word into another word in Mandarin. So, this can easily lead to misunderstandings. I think there is a limitation to this kind of communication. As a result, he was very frustrated. How can I put it, there is a difference between what he understands and what he wants to express. So, he gets emotionally battered. [...] Because it's before the age of 9, he's probably still a relatively young child, he expresses himself very directly and not very deeply. Especially now, at this age, he gradually has the will to express

himself, but then he can't find a suitable word, his Mandarin language accumulation is not enough. He cannot find a suitable word in Mandarin to express his inner state. [...] Even today, he has this problem and I think it will be there for a long time, unless he can improve his vocabulary and his reading level. Otherwise, the problem is long-term. There is also the possibility that the older he gets, the greater the difference between what he wants to express and what he actually expresses may become, and the problem of not being able to communicate will grow.

At the age of 9, Teacher C's child came to the stage of being willing to express his internal states to his parents. However, compared to what he could do in English, his Mandarin expressions were, in the words of his parent, very 'superficial', not 'deep', and not far advanced on what he could do as a younger boy. Consequently, as the child developed cognitively, these simple internal state terms were no longer sufficient to meet his need for expression and may have prevented the intended meaning from being accurately conveyed to the listeners. Teacher C also speculated that as the child grew up, if his Mandarin and English narrative skills continued to develop unevenly, he would be able to make fewer and fewer accurate expressions in Mandarin and be emotionally frustrated. This might explain the bilingual children's preference for narrating in English, and especially about their internal states. All the parents of the bilingual children gave positive answers in the interview when responding to the question of whether their children often communicated their moods and thoughts to them. However, they also all pointed out that their children tended to express their internal states more in English. Furthermore, four of the five parents/teachers (whose children participated in the storytelling tasks) noted that even when their children used Mandarin in interactions, code-switching occurred when the children were emotional and needed to express their emotions or feelings, which was due to the fact that the children could not find or did not know the appropriate expression in Mandarin. As Parent C (3) and Teacher B (4) described below,

- (3) Interviewer: [...] So does your child communicate with you regularly about what he thinks and how he feels?

Parent C: Yes. Usually when they come home, at night they talk about what happened today, what they learnt or what news they heard. They will share these with us. Or why they were happy today and why they weren't happy, it's all said, it's quite good. (laughter) Although we've been making a point of getting them to speak more Mandarin recently, a lot of the time it's still in English.

- (4) Interviewer: [...] So does your child often communicate with you about her thoughts and his feelings?

Teacher B: Very often, but she prefers to communicate in English. It's back to what we said before, she doesn't have enough vocabulary in Mandarin at the end. She wants to communicate with me, the two of us, in this uh, emotional way. The 'whispers' between girls are quite a lot, but a lot of the time she can't say them in Mandarin, even though she is willing to do so.

Interviewer: But in terms of language choice, she will choose English more often?

Teacher B: Yes, yes, yes. And sometimes she would say 'I don't know how to explain that in Chinese'. And then I encouraged her, I said 'you speak Chinese to mum', and then she said, 'I don't know how to speak, mum, I can say it in English. But in Chinese I don't know how to say it.' She will then switch to English. She still doesn't have enough vocabulary because she doesn't have an adequate language environment and sufficient language practices.

This was also corroborated in the interviews with other parents, who further attributed this phenomenon to the lack of a Mandarin language environment, the limited opportunities to use Mandarin and do narrative practices both in class and at home, and their children's reluctance to do reading in Mandarin, resulting in their usual Mandarin reading being much less frequently than English reading. The narrative activities the bilingual children usually conducted at home and school is further analysed in sub-sections 7.2.3 and 7.3.3 respectively.

However, for the monolingual children, despite the fact that their parents did not have to face the problem of language preference when communicating at home, there were individual differences in the feedback from the parents of these monolingual children who were interviewed regarding the content of their interaction with the children, and more precisely regarding the emotional and 'inner thought' interactions. For example, parent D (5) said she had had less interaction with her child in this regard, though parent E's answer (6) was not quite the same, who said her child would initiate communication with her about emotions and thoughts more relevant to their interests, but she did not think her child described much of his emotions and thoughts.

- (5) Interviewer: And did she often share her thoughts with you?

Parent D: Well, that's rare.

Interviewer: Okay, what about his emotions? Did he frequently share with you why he is happy and why he is sad?

Parent D: Umm, sometimes. Well (.) it's very rare anyway.

(6) Interviewer: Does your child often share his feelings with you?

Parent E: Yes, he does. If the teacher praised him in class. He was good at playing with a Rubik's cube and sometimes showed his way in school. If he received praise from her teacher or classmates, he would tell me about it. I feel that he is happy every day (laughter)

Interviewer: (laughter) Yes, okay. Does he often share his thoughts with you?

Parent E: What do you mean, about what happened at school?

Interviewer: Well, it can be about anything.

Parent E: Ok, about what he does (.) He plays a lot, all he does is computers, Rubik's cube. What else? What he plays with? He sometimes plays cards with the children in the neighborhood, he plays card games, he will have his own way of thinking and [they will] learn from each other, and then when he comes home, he will teach me how to play cards. He'd play flying chess or something like that.

Interviewer: Maybe he's a bit more playful, more in that area.

Parent E: Yes, he's not very descriptive. My neighbor's little girl is always describing things, but my son doesn't seem to say much (laughter).

In addition, in order to obtain more details about parent-child interactions in terms of emotional and internal states, the parents were asked to describe their reactions in certain contexts that might trigger these types of interactions in the interviews. The two specific scenarios chosen were (a) how they would react if their child told them they were having a conflict with someone and (b) a situation where they were helping someone else. Both scenarios were further aimed at exploring the impact that the parents' reaction might have on their child's behaviours in 'good' and 'bad' situations similar to the content of the story. In a conflictual situation, on the one hand, Parent A (7) of the bilingual child and Parent E (8) of the monolingual child described in the interview a consistent reaction to their child's conflict, viz one of making sure that if the situation were their child's fault, they should recognise it, learn from it, and ensure that they did not make the same mistake in the future, as well as the importance of bringing in an authority figure when necessary, namely the teacher.

- (7) Interviewer: So how did you respond to this kind of conflict with others?

Parent A: I told her, I said, you go to school to find the teacher, you can talk to the teacher specifically about this matter. But she did not dare (laughter), she did not dare to do it. Then I said that this thing actually also taught you a lesson. You needed to think about what you had learnt from it. Then you would know next time that this was not correct, and you shouldn't do it [...] Then I said some of those things really were to look at both sides. Although you were sad, but it's okay, the teacher, misunderstood you, then you did not want to clarify, then you could use this as a lesson. And next time you should know what to do.

- (8) Parent E: Conflict with others, last time it was [...] He later admitted his mistake to me, and I said it was right to admit it, but he needed to learn from it and not to do it again. In the end he also apologised to his classmate and the matter was resolved.

Similarly, Parent D's answer focused more on asking help from the teacher.

- (9) Interviewer: So how did you respond to this kind of conflict with others?

Parent D: This kind of situation. it depends on what it is. What can I say? If she did something wrong, then surely, she has to apologise and we have to apologise to the parents of the person. But, sometimes, I always told her, 'If you can ask the teacher to solve something, you should try to ask the teacher to help you solve it, sometimes you can't do it yourself. There are many things that you can't solve just by yourself'.

Interviewer: So, it's more like the next time she come across a situation like this, she needs to get a teacher to intervene, right, preferably?

Parent D: Yeah, she needs teachers.

It is clear from the responses of both the above parents that when their child was in or had experienced a conflict situation, their responses were more focused on problem-solving, as well as the expectation that their child recognise the mistake and learn from it about what to do next time through introspection so as to avoid a repetition in future. Additionally, they offered their child the alternative approach of seeking help from a teacher to solve the problem. However, on the other hand, one parent of the bilingual child, Teacher B, pointed out the importance of paying attention to the emotions of the child in this type of situation, which did not seem to appear in the responses from monolingual parents in the interviews.

- (10) Interviewer: How did you respond if there is a small conflict like this?

Teacher B: For minor conflicts, teach her to see the good in other people. Then (teach her to) give others another chance and try to relate to them again. Children, they will be fine in a second. Well, it's just a stage where she's communicating with you, it's just an emotion that she needs to get rid of, she needs your attention, yes, and then, after you give some attention and calm the emotions, the child turns around and is fine.

In regard to the question about sharing experiences of helping others, the parents' descriptions reflect a wide range of individual differences. One parent (Parent D, (12)) of a monolingual child and one parent (Parent A, (11)) of a bilingual child both shared that their children's intention to help others subsequently developed into a conflict about which of their children felt aggrieved. Both parents again mentioned the importance of seeking teacher intervention to resolve the problem.

- (11) Interviewer: How did you respond when he shared with you his experience of helping his classmates at school, for example, or helping other people?

Parent A: Well, to help people, it was the last time she said there was a student [...] the other students attacked this female student in words just a bit like, what? Bullying? And then she felt that female student, uh, should be very sad, and then she kept going to comfort her. And she stood up and went to tell the female classmate to tell the teacher those other classmates were bullying her. She described the whole story in Mandarin and English. Then my reaction at that time was, I said 'you think she is very sad to be bullying by other classmates, why you did not go to tell your teacher is this situation?'

- (12) Interviewer: How did you respond when she shared with you his experience of helping his classmates at school, for example, or helping other people?

Parent D: She had the experience of helping others. She is a very nosy kind of kid. (laughter) It's the kind of thing that happened when someone was being bullied and she went to help them out or whatever. The result was that she ended up with a problem, not being understood, and so on, and then she came back crying and told me about it. Then I said, 'Why don't you go to the teacher to intervene?'

However, Teacher B described in detail how she guided her children to be empathetic in dealing with things, reflecting an emotion-explaining narrative style, which again seemed not to appear in other parents' responses. In addition, the example of Teacher B shows that she is helping the child to embody the feelings of others.

- (13) Teacher B: [...]Once the teacher made a mistake in marking. My child said to me, 'Can I talk to the teacher during the lesson, tell him that he gave me

the wrong grade on that question?'. I said 'no'. She said, 'why not? The teacher is wrong'. I said, 'you can tell the teacher, but not in the class when all the students are there, when all the others can hear you.' I said 'no one would be happy to have this shortcoming of theirs pointed out by other people in public. The teacher will be very happy when you point it out to him because you have done the assignment very carefully and have read the review that the teacher gave you, and then you tell him that he has a small mistake, but not in public. If you made a mistake and the teacher told the students in front of the class to point out that you made a mistake and that you were wrong, what would you think?' Then she said, 'I would feel very embarrassed.' She would say it [the emotions] herself. I always tell her to 'put yourself in someone else's shoes and think about what would happen to that person if you did that'.

7.2.2 Sibling-/peer-child interaction

Although sibling- and peer-child interactions in some cases represent different internal and external contexts, this section reports on both factors for the following reason. In China, although the two-child policy (2011) and third-child policy (2021) have been relaxed, the actual impact has not been much reflected in the participating families. Therefore, most of the monolingual children in this study are the only children in their families, while the rest have a very young sibling with whom they are not yet able to communicate effectively. As a result, there is no valid evidence for sibling influence on children's narrative development from the data of interviews with the Chinese parents in China. Therefore, only the data concerning peer-child interaction in the interviews with the monolingual parents are reported in this section.

All the parents of the monolingual and bilingual children agreed that narrative skills were important for peer interaction. For example, Parent C of a bilingual child described these narrative skills in terms of peer-child interactions as follows.

- (14) Parent C: Narrative skills means that you have to speak clearly and express yourself clearly, which is a prerequisite for their social interaction with classmates and friends. If they don't speak clearly and politely, or if they don't express themselves in a polite or polite way, it can easily affect their relationship between classmates and their future relationships and so on. So, I personally feel that the impact is particularly great.

Additionally, Parent D of a monolingual child specifically noted that the ability to clearly narrate their inner thoughts to peers played a key role in their child's development. However, as just described in the previous section, the same parent did

not recall frequent parent-child interactions related to the child's inner state during the interview.

- (15) Parent D: That narrative ability definitely has an impact. If you can say what's in your mind, and you can say it clearly, it definitely promotes the friendship, and it promotes the other, and all the aspects of the relationship. If you don't say what's in your mind, then people don't know what you think. Or what you say may not be on point, and that can also cause misunderstanding.

For the bilingual children, most of the time English tended to be the dominant language governing their interactions with siblings in almost all of the families interviewed, especially when the parents were not present, as described by Parent B (16) and Parent C (17).

- (16) Parent B: Usually they talk in English. So, I feel that Mandarin seems to be only spoken to them by us at home. This makes learning Mandarin a lot slower, I feel that way, but when we force her to speak, she doesn't speak, so I'm not sure how it works.
- (17) Parent C: At home, between them, they always like to use English. Then we try to remind them and make sure they speak Mandarin. But sometimes, when our parents are not around, it's very difficult for them, so they speak English immediately.

7.2.3 Family Narrative Activities

As mentioned in the previous chapter, according to the questionnaire, the Chinese immigrant parents in Ireland were positive about their children's Chinese language development, with all the parents reporting that both mothers and fathers chose to communicate with their children in Mandarin or a combination of Mandarin and English, while most parents also sent their children to Mandarin language schools at weekends for additional language exposure. However, according to the interview results, the parents focused more on correcting pronunciation and building vocabulary for their children's Mandarin acquisition in the pre-school years. As for the development of school-age children's narrative skills, different parents have different foci, and their children behave differently, but in general these skills can be summarised as follows: (a) bilingual children did not read and write much in Mandarin, and also did not take the initiative to do so or enjoy it; and (b) bilingual children were highly

receptive to videos and TV programmes in Mandarin, and more so than books.

For narrative activities in Mandarin, unlike the parents of the monolingual children, all the parents of the bilingual children participating in interviews reported a lack of reading in Mandarin for their children. Parents attributed this to their difficulty in finding Mandarin books suitable for school-age bilingual children. They further pointed out that this was caused by their children's inability to fully understand the books due to a mismatch between their Mandarin level, the number of Chinese characters they knew, their cognitive ability, and the level of Mandarin reading books. In the Mandarin language, there are two different systems: the *pinyin* system; and the Chinese character system. *Pinyin* is the pronunciation system and generally serves as a learning aid for children, while the Chinese characters represent the reading and writing system. The bilingual children in this study who were born and raised in Ireland and entered Mandarin-language schools to learn Mandarin generally started learning *pinyin* at the age of 6. For 9–10-year-old bilingual children, the teaching materials had not yet moved away from the aid of *pinyin*, and the children's literacy levels were not sufficient to support them to do a lot of text reading without *pinyin*. As Teacher B described,

- (18) She watches a lot of Chinese programmes, but not so many Chinese books. She has [Chinese books] at home, but she doesn't want to read them. I find that Chinese books, picture books, or whatever, are not as good as the English books. We have a set of 'I wonder why' at home, the children's edition that we bought specifically for our children to learn *pinyin*, so the book is with *pinyin*. But unfortunately, the Chinese information in this *pinyin* is not the kind of vocabulary that a child learning *pinyin* can understand. It is all about adult vocabulary and narrative skills, which are not suitable for children. Children who learn *pinyin* are not able to understand. If you ask her to spell it, she can spell it, but she doesn't understand it. My child is 9 years old. She finds it boring to read the *pinyin* version because she doesn't understand it. There are many words that are too difficult and abstract, and these difficult and abstract words can only be understood by children who have reached a certain level, and those who have reached that level don't even need to look at *pinyin*, which is very boring and meaningless anyway.

For the bilingual children who read Chinese books regularly, parents also noted that they preferred books with *pinyin* and about familiar topics to books without *pinyin* and about unfamiliar topics. The reason for this was that when reading books without *pinyin*, they encountered words or phrases they did not recognise and were therefore unable to read them aloud, which undermined the understanding of the meaning of the

whole text. As Parent A described,

- (19) Parent A: She reads books but mainly in English. For the Chinese books, she won't read them on her own initiative, she will read them only if you ask her to. In fact, I buy a lot of books with and without *pinyin*, but she usually likes to read fairy tales and fables with *pinyin* because she knows the content. So, she will read and can read a whole book. However, she will come across the ones with *pinyin* in the process, and she will read them. If there is no *pinyin*, you have to force her to look at it. In the process of reading, she will ask me, 'What word is this and what word is that?' I said she should look it up herself. She thinks it's a waste of time to look [it] up the dictionary. So maybe it's because it's difficult for her to read without *pinyin*. That's why she didn't look at it so actively, but only when I forced her to do so.

Therefore, when bilingual children read in Mandarin, they also did not fully understand the story content in many cases. Parents also pointed out that when the children did so or listened to their parents read in Mandarin, this failure to understand the full text also occurred from time to time; thus, scaffolding from their parents, such as explaining the words or the content of the story, was required. The bilingual parents described that when they had time, they would read with their children or give them Chinese reading tasks. Through questions such as 'What does this story tell us?' and 'What did you learn from this story?', they guided their children to summarise moral behavioural judgments and deepened their understanding and impression of correct, socially acceptable behaviours. They would also provide guidance for future behaviours by asking such questions as 'If it's you, what are you going to do?' and 'If you are in the same (usually negative) context in the future, what will you do?' Parent A provided a description of the whole process at interview, while the bilingual children's parents did not describe a similar situation when reading with their parents in English.

- (20) The other day I asked her to read a book to her sister, a small, short storybook, and it is in Chinese with *pinyin*. Because I didn't have time to it, so [I] told her, I said 'today your task is this. You have to learn to do a good thing every day. Today it is that you read to your sister in Mandarin'. And I said 'this exercises your reading skills, and it also helps me because I don't have time to read the story. Then it helps your sister, she heard the story too.' Then she read it. Later, when I had time, I asked her. I said, 'What did the story you just read to your sister teach you?' She said, 'Know your mistakes and be able to change them.' Then I said, 'Can you briefly retell it?' And then, quite well, she retold it, and quite well, she said. Then the point is to know the mistakes and be able to correct them. Then I said, 'If you make a mistake, will you do that [correct it]?' She said she would.

Additionally, when the bilingual children were unable to read Chinese characters fluently, they became bored or lost confidence. This was coupled with the fact that many Mandarin *pinyin* reading books were too complex and exceeded the cognitive ability of this age group, making it impossible for the children to understand the meaning of their texts even if they were able to recognise most of the characters. All of the above reasons, combined with the difficulty of finding Chinese reading books for this age group, mean that the bilingual children read much less in Mandarin than in English, as Parent B (21) and Parent C (22) described.

- (21) Parent B: I would say that he rarely reads Chinese, except for his Chinese homework. But I bought him a lot of Chinese books, some with Pinyin and some without. Then his dad would sometimes give a speech, for example, one at night, and then his dad would explain to him what this means. But a lot of it was ambiguous. I feel this way, and then because he may be in the process of reading, there will be a lot of incomprehension, so he slowly became less inclined to read. So recently, reading Chinese books, to be honest, is much less than before. He reads the little picture book that his sister is reading, and he thinks it's too easy. Then if the books go a little deeper, for example, we have to buy some 'Mi Xiaoquan' books, but he may encounter things that he does not understand. He then lost his patience.
- (22) Parent C: Chinese books we are a bit lacking in this one too (laughter) so I feel ashamed myself [...] They basically read books in English. You can't force a child to learn something nowadays, once she doesn't like it, it's hard to get her to learn it.

According to the interviewed parents, the monolingual group self-evidently did a large amount of reading in Mandarin. However, it is worth noting that, along with the Mandarin narrative activities, this group also underwent a process of converting the inputs into outputs, both orally and in writing. For example, Parent D mentioned that her child often not only retold the story orally to her but also wrote about it afterwards, which is rarely the case with bilingual children who read in Mandarin.

- (23) Parent D: I feel that they are now reading at a very fast pace, and she can also grasp the key points. The teacher asks them to read a few books every term, and they need to accumulate more. The teacher always stresses that they should read more books during the holidays and accumulate some good words and sentences from these books [...] And then she would even tell me about it after she read it. Like the other day when she read that book and she finished it in one night. What was that book called? Their teacher, the teacher told them to read it. Anyway, she retold from the beginning to

the end, and then it was divided into chapters and chapters, and then she gave a very clear explanation, which was very detailed. I was crying after listening to it (laughter) because it is a very touching story.

Parent D also mentioned that some of the books and reading are recommended by teachers. In the course of their reading, the child paid a lot of attention to the accumulation of diverse words and sentences, which was also related to the teachers' relevant teaching methods in school, as discussed in sub-section 7.3.3.

7.3 Narrative Socialisation at School

7.3.1 Teacher-child Interaction

The data from interviews with the teachers focused more on the teacher-child interactions in classes, which was specifically conveyed from the descriptions of narrative activities in classes. For the teachers who participated in interviews, they were the Mandarin language teachers of some of the participating bilinguals. They reported that in terms of language use, the classroom was predominantly in Mandarin, the students were consistently communicated with in Mandarin, and they were required to use only Mandarin in the classroom. However, some teachers pointed out that the length of the Mandarin class was relatively short and that when there was only one lesson per week and the classroom content included instruction in writing Chinese characters, the Chinese classroom gave the children limited opportunities to communicate in Mandarin. Therefore, the impact of the Mandarin classroom on the children's development of Mandarin narrative skills was not as great as that of the home environment. As Teacher B described,

- (24) Teacher B: Well, there are a lot of the warm-ups before the class starts in the form of a conversation. 'How was your last week?' 'We haven't seen each other for a week, what's everyone been doing?' Or what holidays or festivals has just passed, we talk about these during the warm-up before the class starts. This is also done during the review of the previous lesson. When the child interacts with us, we expect that they are the narrators [...] the syllabus and material we use are all quite good, and we are very confident that we have done this well. However, the maximum amount of time that the children spend on this Chinese learning is one lesson a week, and our lessons here are one lesson, one hour. Some places have a little more than that, but it's only two hours. What kind of learning can you do if you only spend two hours a week on this? If you don't practise at home, it's too difficult to achieve a good result with just these two hours of study.

7.3.2 Peer-child interaction

According to Teacher B and Teacher C, English was the dominant language among bilingual children's peer-interaction. As Teacher B (25) pointed out, even in the Mandarin-language schools where Mandarin is supposed to be the main language of communication, during break-time students would switch to English naturally when the teacher did not require them to speak Mandarin all the time. Teacher C (26) attributed this to the proficiency imbalance between English and Mandarin of the bilingual children.

- (25) Teacher B: During the break, as long as the teacher doesn't enforce anything, they will turn around and use English to communicate, so no Mandarin will be spoken. (laughter) I have to remind them repeatedly that they can only speak Chinese in Chinese lessons. They are not willing to learn.
- (26) Teacher C: They speak a lot of English after class. They probably feel that English is their first language and then Chinese is still their second language, so they are more proficient in English than in Chinese and express themselves clearly. They prefer to use English rather than Chinese. So, there are very few narratives and expressions in Chinese. From what I've seen, very little.

7.3.3 School Narrative Activities

In the elementary language classrooms in China, teachers also develop students' narrative skills at three levels: reading; speaking; and writing. At both the elementary and secondary school levels, the six elements of a complete narrative are emphasised, namely time, place, characters, cause, what happened, and outcome, which corresponds to the components of story grammar, *Setting, Goal, Attempt and Outcome*. *Setting*, including time, place, and characters, which account for half of the six elements, shows its importance in Chinese narrative. The classroom teaching emphasises the necessity of cause and effect and requires students to be specific, vivid, and detailed in their narratives (Li & Yu, 2020). Teachers have been using this approach in their teaching to train students not only to analyse Chinese narratives but also to produce oral narratives (for younger students) and written narratives (for older students), which was confirmed

in the interview with the Chinese teacher.

- (27) Teacher A: [...] but at the third grade, we began to let them to analyse the text thoroughly, we will let them follow the ‘who did what and how’ such a format, or let them find the time and place, the characters, cause and the effect. And ask them to use the most concise language to summarize the content of the whole lesson [...] The most important thing is that they have to be able to write about the people and event, in fact, writing about people is not the priority, but writing about the event is. They will be asked to write this way, that is, there must be time, place, and characters, and then what the characters did. If they do not express it through words, sometimes it may not be implemented very well only through speaking. To summarise, we are now helping to develop this ability through essay writing [...] and then it is around the results of things to say, or around what happened to say, so that they will explain this ‘how’ clearly. But the content of their narrative basically is all about the outcome, who did what, what happened. Yeah, that’s basically how it’s summarised. This is easier for the third graders. The six elements of time, place, character, cause, what happened, and effect are actually more important to develop in the upper grades, but we will now give the students these concepts and teach them step by step.

It is clear from the above description that the concept of the six elements was emphasised in the teaching. Thus, the monolingual children in this study had been asked to be familiar with these concepts and to be able to identify these elements in narratives and to develop their narrative writing skills gradually by following this theory. In addition, the use and accumulation of diverse vocabulary was particularly emphasised, not only in the teacher’s description of teaching in interviews, for example in the classroom, where children are guided to accumulate and use diverse vocabulary through model texts, but also in the expectations and requirements of parents and teachers for children’s narrative output, i.e. the use of diverse vocabulary to describe people and events in a vivid and imaginative way. The criterion for vividness is as described by Teacher A.

- (28) Teacher A: Vividness is to be able to use modifying words, such as adjectives, when speaking and writing a paragraph. Then some phrases, some rhetorical devices, such as metaphor, prose, personification, and then writing a narrative about the character’s actions, his language, and his mannerisms.

Teacher A also pointed out the importance of narrative activities, especially reading, which benefits the variety of descriptors in children’s narrative. On the other

hand, output, viz the process of converting a lot of reading into narrative output, is also considered to be important in better helping students develop their narrative skills. As she mentioned, merely reading extensively did not necessarily mean that students would have a high level of narrative skills.

- (29) Teacher A: I used to teach a child who read a lot of books and in his writing, he described characters and events much better than the other children did. So, reading actually helped them a lot in their narrative skills. But some children, they actually read a lot of books, but you can feel that their language learning ability is not very strong because it is just a simple input process. They may just read the story, or read the plot, they don't think too much about the characters' experience, so they just read a lot of books. But this reading ability including the ability to think is not enough; they also need the process of output. And then they may have to write a diary regularly, or they have to write afterthoughts, or they have to share their reading with friends and parents. If there is not such a process, I think some children, they just read this book and read this story, in fact, is equivalent to only go to complete the task, but not so much for the improvement of his narrative skills.

An inability to narrate vividly was evident in the interviews when bilingual children's parents and teachers were describing their children's narrative skills in Mandarin. Teacher C also pointed out that while this skill was related to input, it was more related to the amount and frequency of reading that children had done in Mandarin.

- (30) Teacher C: For Mandarin, if children receive little input, if their input is very poor, their output will be even less. But if children read enough, if they experience this in the form of words, or narrative to express, to depict something, or to express a kind of feeling, their output will be a little more colorful, not so bland. I think it has to do with the amount of reading and how frequently he reads, that is, the absorption and accumulation of vocabulary, etc.

According to the Chinese teachers in Ireland, for bilingual children aged 9–10, the Mandarin school curriculum had not yet begun to systematically train narratives, especially writing. Narrative-related activity in the classroom was mainly in oral language, focusing on communicating about daily life and retelling the Mandarin texts learned. Writing training was less frequent and focused on vocabulary comprehension and building, and accurately using these skills to write simple sentences. Teacher C (32) noted that schools do not usually have a narrative writing requirement in Mandarin until

the fifth or sixth grade or even higher. However, the bilingual children who participated in this study may have received extensive and frequent training in narrative production in both oral and written forms of English in school by the age of 9, as Parent A described (31).

- (31) Parent A: Started in second grade, the teacher basically asked them to write a brainstorm. Brainstorm is also helpful for writing. Brainstorm is to structure the story. The story is divided into several parts. And they need to think what to write in the first part, what to write in the second part, and the third part. For a paragraph, for example, you can summarise [it] in a few simple sentences. That's how one of his teachers in second grade taught her to write. And then in this way she's still using it.
- (32) Parent C: Yes. He started in second grade really, it was once a week, and then third grade, third grade teachers are different. It depends on the teacher; each teacher has different requirements. The teacher of the third grade is that he gives the child a topic anyway, then you go to write. After writing it, after the composition is submitted, the teacher revised [it], then the child writes the second draft, and finally is the final draft. There is such a process is to let the child constantly to improve his writing.

As mentioned in section 7.3.1, most Mandarin language schools in Ireland have a short class of 1–2 hours per week, far less than that of bilingual children for English and monolingual children for Mandarin. Therefore, as Teacher B noted, it is difficult for Mandarin language schools to progress to targeted oral and written narrative instruction in the 9–10-year-old age group.

7.4 Cultural Values Realisation

A number of cultural value realisations in home and school environments, e.g. the emotional communication between parents and children, have been presented in the previous sections. In other words, it is in the interaction between parents, teachers, classmates, siblings, and children, as well as in the narrative activities of the family and school, that Chinese cultural values are reflected. Accordingly, this section focuses more on the realisation of moral and introspective orientation and gender differences that are comparatively less discussed in the previous sections.

7.4.1 Moral and Introspective Orientation

In the previous sections, the value of moral and introspective orientation has been presented as realised in children's domestic narrative activities (cf. Section 7.2.3), and parents' reaction towards children's emotional contexts (cf. Section 7.2.1). During the interviews, several questions pointed to this cultural concept in order to understand parents' perceptions of its impact on children's narrative development, as well as to find underlying cultural patterns of their narrative practices and interactions with their children. First, when asked about the development of their children's sense of morality, all the parents agreed that it was their responsibility to guide them and to teach their children to understand concepts of right and wrong. The parents of the bilingual children also emphasised the influence of their school and surroundings on the formation of the moral sense of their children. Although feedback from Chinese teachers and parents in Ireland indicated that Mandarin-language schools and local schools do not foster this in the form of the curriculum and instruction, they felt that the behaviours of their children's peers and teachers can have a positive or negative impact on the formation of their moral sense. As Teacher B described,

- (33) Teacher B: I think the first place to start in developing a sense of morality is with us, the parents. They have the parents first. Then there is school, and then there are external influences, such as friends, films, and books. But I think the most important thing is the moral aspect, which should be taught by parents, especially when the children are 6 to 9 years old, or 5 to 10 years old.

In addition to highlighting environmental influences, the Chinese teacher in China also pointed out that the school offered a relevant curriculum. A class named the 'Morality and Rule of Law Class' educates children in the early grades on exemplary ethical behaviour and in the older grades to understand the basic concepts of the legal system. As Teacher A pointed out,

- (34) Teacher A: It used to be called [the] Morality class, but now we call it the Morality and Rule of Law Class, which means that they will learn more about the law compared to what we learned when we were kids. What they are now teaching, it's not the same as before. It's not just a moral training, I think it's getting broader and broader, and the kids are learning about a lot of things from a young age. The first and second grade is the most basic, they will be taught to be respectful of others, to be a person who loves to work, etc. and then the upper grades, they will speak more and more deeply

[...] For example, before May 1st, as it is Labor Day, we had the activity that we chose a model worker and learn from him/her. And then we asked the children to prepare themselves, that is, one or two voluntary children in the class to prepare a presentation about the person's deeds and his life, and then the other students would write letters to pay tribute to them and praise their work. There will also be our holiday assignments, which is the 'Seeing is Believing', which is a story and a character, and then let them write their feelings after reading it, writing to the person, and then expressing their feelings. We will have some of these activities in Mandarin class.

Teacher A's account suggests that the monolingual children in this study not only developed their sense of morality in this particular class but also had regular opportunities to realise what they had learned in their narratives, both verbally and in writing.

7.4.2 Variations in Relation to Gender Expectations

In the interviews, there were questions to explore as to whether parents and teachers had perceived differences in the narrative abilities and patterns of expression of children of different genders. Teacher C, for example, believed that girls' narrative expression skills were higher than boys' at the age of 9–10 years and earlier, in that they were able to express their thoughts more clearly, describe events and people more clearly, and use more vocabulary.

- (35) Teacher C: I think narrative skills are quite important, but it depends on the gender of the child, I think, and the age. I think I find that girls are more expressive than boys at the same age. Boys, they may be more logical, he may be more sensitive to numbers, but that's not very comprehensive. There are some girls who are more sensitive to numbers as well. But most girls are more expressive than boys. Especially the younger the age, the more this comes out in him. If you ask a boy at the age of 9–10 to say something that is very simple, he will not be organised, or his mind will not be the same as what he expresses. He will express it in a disconnected way, but a girl will be able to express it step by step in a very structured way. The bilingual child also receives interference from the second language, another language. There is a certain amount of interference with the order of words, the flow of words, and the structure of sentences, such as inverted sentences.

However, most of the parents and teachers of the monolingual and bilingual children mentioned both the existence of individual differences and the fact that there were also boys who expressed themselves very well for whom gender was not a determining factor. Thus, in the eyes of these parents, gender differences were not reflected in the narrative expression of children. As Teacher A (36) and Parent A (37) said,

- (36) Teacher A: The difference between boys and girls, girls are more delicate, then, but some boys can also write narratives well. Overall, girls' narratives may be more detailed and may be more vivid. And boys are a little weaker than girls, perhaps. However, there are some boys who are actually very strong writers, but these are in the minority.
- (37) Parent A: OK, boys and girls, it really does depend on personality, eh. It depends on the personality[...] Some people, they just don't know the word fear by nature. No matter what he wants to say at any time, he just says whatever he wants to say. Some people, it's just like that, really. and I actually think there's a really big difference between narrative expression and that aspect of their personality.

7.5 Summary of Findings

The analysis in this chapter aims to answer RQ 3: *To what extent does culture influence the narrative production and comprehension of the Mandarin-speaking monolingual children and English-Mandarin bilingual children?*

This question is unpacked via the following sub-questions:

- (a) To what extent are the monolingual and bilingual children's family narrative socialisation practices associated with the cultural values of moral and introspective orientations, restrained emotional expression, and variations in relation to gender expectations (as discussed in Section 3.2.3)?
- (b) To what extent is the monolingual and bilingual children's school-based instruction associated with the cultural values of moral and introspective orientations, restrained emotional expression, and variations in relation to gender expectations?
- (c) What are the similarities and differences between the monolingual and bilingual children's family narrative socialisation practices and school-based instruction?
- (e) How does the influence of culture on family narrative socialisation

practices and school-based instruction impact children's narrative production?

7.5.1 Narrative Socialisation in Family Environment

- (a) For the English-Mandarin bilingual children, English dominated their communication with parents and siblings.
- (b) According to their parents' report, the English-Mandarin bilingual children's Mandarin narratives were much less advanced than their English in terms of the diversity of vocabulary, narrative length, and complexity of narrative content.
- (c) According to their parents' report, the English-Mandarin bilingual children preferred and tended to code-switch to English, especially when expressing their internal states.
- (d) According to their parents' report, the English-Mandarin bilingual children conducted narrative activities much less frequently in Mandarin than in English.
- (e) According to their parents' report, it was difficult to find Mandarin reading books that were appropriate for the cognitive development of bilingual children and their language proficiency in Mandarin.

7.5.2 Narrative Socialisation in School Environment

- (a) For the English-Mandarin bilingual children, English dominated their communication with teachers and classmates in their weekend Mandarin language schools.
- (b) The English-Mandarin bilingual children's narrative training in English and Mandarin is unbalanced. That is, unlike English, their formal training in narrative in Mandarin did not begin at Mandarin-language schools at age 9.
- (c) For the monolingual children, the narrative instruction and training received in school in reading comprehension and writing follows the 'six elements' principle, with a focus on describing the *Setting* and a negligence of IST expressions.

7.5.3 Cultural Values Realisation

- (a) The parents of the English-Mandarin bilingual children were willing and valued guiding their children in understanding, embracing, and preserving Chinese culture.
- (b) According to the parents of the English-Mandarin bilingual children, they guided their children to summarise moral sense judgments from stories by providing instruction and ask them to summarise the ‘lesson’ they learnt when reading with their children.
- (c) According to the parents of the English-Mandarin bilingual children, they deepened their children’s impressions of a sense of morality in the form of questions and answers about future behaviours in similar contexts when reading with their children.
- (d) The monolingual children were guided by their parents to reflect on and make moral judgments about their actions, and draw lessons for future use in their interactions.
- (e) For the monolingual children, their curriculum at school developed their sense of morality and provided regular opportunities to realise this sense in their narratives, both verbally and in writing.
- (f) One parent of a bilingual child showed an emotion-explaining style in narrative socialisation.
- (g) The parents of the monolingual children exhibited individual differences in their descriptions of communication about emotions, yet none of them showed an emotion-explaining style.
- (h) The parents of the monolingual children and one parent of a bilingual child showed a tendency to focus more on problem-solving than on the child’s emotions.
- (i) There were individual differences in the responses of parents and teachers as to whether the children’s narrative expression differed by gender, with some parents and teachers believing that there were differences between the boys and girls in narrative production, and others believing that the differences in narrative were attributable to personality rather than gender.

Chapter 8 Discussion

This chapter presents discussions of the findings of Chapters 5–7 in relation to the following four hypotheses initially proposed. It divided into four sections and explores the effects of language proficiency (Section 8.1), school-based narrative instruction (Section 8.2), narrative activities at home (Section 8.3), and culture (Section 8.4).

Hypothesis 1: The English-Mandarin bilingual children's proficiency in two language affects their macrostructural production in both languages (cf. 2.5.4).

Hypothesis 2: School-based narrative instructions in English have an impact on the English-Mandarin bilingual children's English narrative production and comprehension, while school-based narrative instruction in Mandarin has an impact on the monolingual Mandarin-speaking children's narrative production and comprehension (cf. 2.5.5).

Hypothesis 3: Narrative activities at home affects the English-Mandarin bilingual children and monolingual Mandarin-speaking children's narrative production and comprehension (cf. 2.5.1).

Hypothesis 4: Chinese cultural values, viz, moral and introspective orientations, restrained emotional expression, and variations in relation to gender expectations, influence the English-Mandarin bilingual and monolingual Mandarin-speaking children's narrative production and comprehension (cf. Chapter 3).

8.1 The Effect of Language Proficiency

The first aim of the study was to examine whether the English-Mandarin bilinguals' proficiency in two languages has an impact on their narrative production. Prior research on the association between bilinguals' macrostructural production and language proficiency has shown some conflicting findings regarding the role of proficiency in their two languages in regard to the total macrostructural components and the level of macrostructural complexity of their narratives, as well as in their preference for producing different types of macrostructural components in different languages. Some findings support the view that bilingual children who have unbalanced proficiency levels in both languages do not perform equally well on the three measures of macrostructural production in both languages (e.g., Hao et al., 2019; Kapalková et al.,

2016; Roch et al., 2016, for the 5-year-old group). Other findings show that the production of the total macrostructural components and the level of complexity are invariant among bilinguals' two languages (e.g., Fiestas & Peña, 2004; Kunnari et al., 2016; Roch et al., 2016, for the 7-year-old group). However, not every study assessed all three measures, while even fewer examined preferences for the production of different types of macrostructural components in bilinguals' two languages.

In relation to the total macrostructural components and the level of macrostructural complexity, Roch et al. (2016) examined both measures in the narratives of Italian-English bilinguals at the age of 5, identifying an advantage in Italian over English. The researchers argued that this advantage was due to participants' lower proficiency in English, measured using the Peabody Picture Vocabulary Test. The identified differences in both the total macrostructural components and the level of macrostructural complexity, however, disappeared in their 7-year-old group, whereas the lower proficiency level in English remained in that older group. Roch et al.'s study (2016) thus raises doubts as to whether the variant production of the total macrostructural components and the level of macrostructural complexity across bilinguals' two languages are influenced by their language proficiency. A study by Kapalková et al. (2016), on the other hand, made a similar interpretation to Roch et al. (2016) of the younger age group. Focusing on the total macrostructural components produced by Slovak-English bilinguals at age 5, Kapalková et al. (2016) found a significant lower production in the less proficient language, which in this case was English. However, language proficiency was not tested in this study (2016), but the researchers drew the inference based on the very limited English input (as little as 12 months) received by these 5-year-old bilinguals. Balanced bilinguals, by contrast, seem to produce invariant total macrostructural components and level of macrostructural complexity across their two languages. Kunnari et al. (2016) examined the total macrostructural components and the level of macrostructural complexity in the Swedish and Finnish narratives of balanced bilinguals who were exposed to both languages since birth and had equal daily input, finding no language effect. Similarly, Fiestas and Peña (2004), who studied English-Spanish bilinguals at age 4;0–6;11 who were fluent in both languages as measured by the IDEA Proficiency Test, reported that the level of macrostructural complexity of these bilinguals' narratives in two languages is invariant. Thus, it seems that no conclusive argument can be drawn regarding the effect that bilinguals' lower proficiency in one language may have on their total

macrostructural components and macrostructural complexity produced in that language.

A preference for using different types of macrostructural component across bilinguals' two languages has been observed in a small number of studies (e.g., Hao et al., 2019; Kapalková et al., 2016; Fiestas & Peña, 2004). However, the results vary in terms of which specific macrostructural components are favoured in bilinguals' different languages, presumably due to participants' diverse linguistic backgrounds. Additionally, no conclusive conclusions can be formed concerning the effect of bilinguals' language proficiency in two languages. Hao et al. (2019) compared the narratives in two languages of English-Mandarin bilinguals (at age 4;6–9;7), finding that the only variation was in their *Setting* production, with bilinguals performing better in English than in Mandarin. This finding was argued to be associated with the bilinguals' superior English proficiency, as shown by the stronger receptive and expressive vocabulary tested. Kapalková et al. (2016) found that Slovak-English bilinguals produced significantly more *IST as Initiating Events*, *Outcomes*, and *IST as Reactions* in Slovak. Similar to their explanation of the finding that more total macrostructural components were produced in Slovak, the authors argued that the participants' superior Slovak proficiency had an impact. Fiestas and Peña (2004), on the other hand, found that the balanced English-Spanish bilinguals aged at 4;0–6;11 produced more *Initiating Events* and *Attempts* in Spanish, but more *Outcomes* in English. The researchers, however, argued that this finding may be explained by culturally favoured narrative patterns, as the bilingual children in the study utilised their two languages in different contexts, i.e., Spanish at home and English at school.

Motivated by these contrasting arguments and findings, the present study examined the association between English-Mandarin bilinguals' proficiency in their two languages and their macrostructural production, as measured by the total macrostructural components, the level of macrostructural complexity, and their preference, if any, for producing different types of macrostructural components in different languages. The overall findings only partially confirm the hypothesis originally formulated that the proficiency of the English-Mandarin bilinguals two languages has an impact on all three measures of their narrative production in both languages. The current research found that the 20 English-Mandarin bilinguals, at the group level, produced more macrostructural components in total in their English narratives than they did in Mandarin, but at equivalent degrees of macrostructural complexity. These bilinguals were further divided into two groups: a balanced group,

who had comparable English and Mandarin proficiency; and an unbalanced group, who had lower Mandarin proficiency. The results further indicate that the balanced group outperformed the unbalanced group in terms of the total macrostructural components produced in Mandarin, but not in terms of macrostructural complexity. These findings imply that the English-Mandarin's ability to incorporate more macrostructural components into their Mandarin narratives is proportional to their Mandarin proficiency. Their macrostructural complexity produced in Mandarin, on the other hand, is less dependent on their Mandarin proficiency. Thus, bilinguals' lower proficiency in one language may impair their ability to perform similarly well in terms of the production of total macrostructural components, but has a smaller effect on their ability to produce an invariant degree of macrostructural complexity in both languages.

Regarding the bilinguals' preference for producing different types of macrostructural components in the two languages, the finding of the present study suggest that the 20 English-Mandarin bilinguals produced more *Attempts* in English than in Mandarin at a group level. This finding, however, contradicts that of Hao et al.'s study (2019) on English-Mandarin bilingual children. Moreover, no effect of Mandarin proficiency was found on the bilinguals' production of *Attempts* in Mandarin. Therefore, at least in the present study, there is no evidence that the bilinguals' tendency to include fewer *Attempts* in Mandarin is related to their lower proficiency in that language. This study, on the other hand, attributes this finding to the differences found in the bilinguals' narrative activities at home and school-based narrative instructions in both languages, which are separately discussed in Sections 8.2 and 8.3.

In summary, on the basis of these findings, the present study contributes to the current debate on the association between the imbalance in bilinguals' proficiency in two languages and their abilities to produce invariant total numbers of macrostructural components, levels of macrostructural complexity and types of macrostructural component in two languages. The study highlights the different effect that bilinguals' unbalanced proficiency in two languages may have on these three macrostructural production measures. It provides evidence that the total number of macrostructural components, compared to macrostructural complexity, is more sensitive to unbalanced proficiency in bilinguals' two languages. Additionally, this study finds no evidence to support the view presented in previous studies that unbalanced language proficiency may be attributed to bilingual children's variant production of certain types of macrostructural component in their two languages. The following two sections offer

possible explanations for this finding.

8.2 The Effect of School-based Narrative Instruction

The second aim of the study was to examine whether school-based narrative instruction has an impact on the narrative production and comprehension of both the bilingual English-Mandarin children and monolingual Mandarin-speaking children. In the case of bilinguals, only a few studies (Gagarina, 2016; Altman et al., 2016) have looked into the effect of school-based instruction on narrative production and argued it to be beneficial. Gagarina (2016) examined Russian-German bilingual children in first and third grades and found that macrostructural complexity improved only in Russian. The researcher then analysed these bilinguals' Russian and German curricula and found that they only received explicit GAO instructions in Russian and not German. Therefore, the researcher correlated these findings and interpreted them as evidence of a positive impact of explicit narrative instruction on bilinguals' narrative production. Altman et al. (2016) investigated mental verbs and found that English-Hebrew bilingual pre-schoolers preferred to utilise mental verbs in Hebrew rather than in English. The researchers offer a similar argument to Gagarina (2016), claiming that their finding was due to the widespread usage of mental verbs in bilinguals' school-based narrative instruction in Hebrew. However, none of the previous studies have included bilinguals who speak English and Mandarin.

Recognising a research gap, the current study has sought to investigate school-based narrative instruction received by English-Mandarin bilinguals in both languages, as well as its impact on their narrative production and comprehension. The bilinguals in the present study had received extensive narrative instructions in school solely in their majority language, English, as confirmed by the interviews with their parents (cf. 7.3.3). Their school-based narrative instructions in Mandarin, according to their Mandarin language teachers, had not yet started, even at age 9 (cf. 7.3.3). Thus, these bilinguals were trained to describe experiences more in English than in Mandarin at school. There is no evidence in the present study that school-based narrative instruction conducted solely in English influenced the bilinguals' narrative comprehension, as they produced comparable and nearly perfect performances in both languages. However, this unbalanced school-based narrative instruction in both languages could be another explanation for the differences discussed in Section 8.1 in which the English-Mandarin

bilinguals showed superior performance in English to that in Mandarin by producing significantly more macrostructural components in total, as well as the *Attempt* component. These findings suggest that school-based narrative instruction in one language may have a beneficial effect on the narrative production of that language whereas, unbalanced school-based narrative training in languages may exacerbate the uneven narrative production of bilingual children's two languages.

The present study also investigated the school-based narrative instruction that the monolingual Mandarin-speaking children received. For monolingual children, previous research (Hayward & Schneider, 2000; Green & Klecan-Aker, 2012; Klecan-Aker & Gill, 2005) has suggested that explicit story grammar instruction has a beneficial impact on the narrative production of pre-schoolers and school-aged children, with the majority of them focusing on the narrative intervention on children with DLD. For example, Klecan-Aker and colleagues (2005, 2012) found that a 13-week narrative intervention of explicit story grammar teachings improved the oral storytelling abilities of children with DLD aged 6;3–9;6 in terms of macrostructural components utilised and macrostructural complexity. In the case of monolingual Mandarin-speaking children, the Literature Review (cf. 3.2) identified that a very limited number of relevant studies has focused on school-aged children, which also not consider the effect of school-based narrative instruction. Thus, the present study has also aimed to close this research gap.

This study has also found that the school-based narrative instructions received by Mandarin-speaking monolinguals differed from the story grammar model proposed by Stein and Glenn (1979). The 'six elements' of narrative (cf. 7.3.3) to which the monolinguals were accustomed emphasised the contextual information of a story, viz, the time and place, which accounted for two of a story's elements in the Chinese curriculum. This is in contrast to Stein and Glenn's (1979) story grammar model, which combines time and place to form a *Setting* component. Additionally, the 'six elements' of narrative do not include the *Reaction*, implying that the internal states as characters' reaction towards the outcome of their behaviours was deemphasised in the Chinese curriculum. For the monolinguals at the age of 9, teachers' narrative instructions were dominated by the explanation of descriptive vocabulary, rather than internal states, whose demands upon and expectations of students' narratives likewise emphasise vocabulary diversity rather than active expressions of internal states (cf. 7.3.3).

These differences in school-based narrative instruction were echoed in the monolinguals' Mandarin narratives production, where they produced far more *Setting*

but less *IST as Reaction* than their bilingual peers. The former finding, in suggesting more concrete story beginnings produced by the monolinguals, is consistent with previous research comparing Mandarin- and English-speaking children (Wang & Leichtman, 2000; Zhang, 2012). However, previous research has ignored the effect of school-based narrative instruction, attributing it to solely cultural influences. The latter finding was somewhat surprising, as the bilinguals had twice as many opportunities to produce *IST as Reaction* because they produced both *Baby Birds* and *Baby Goats* stories in Mandarin. This result indicates that three years of school-based narrative instruction resulted in the internalisation of an emphasis of contextual information and deemphasis of internal state expressions in the narrative production of monolingual Mandarin-speaking children at the age of 9.

Furthermore, this study has found that school-based narrative instruction in Mandarin was associated with monolingual children's comprehension. In comparison to bilingual children who displayed mastery of story comprehension in both languages, monolinguals performed much poorly on comprehension questions, especially about *IST as Reaction* in Mandarin (cf. 5.4.2.2). Influenced by the lack of emphasis on internal states in school narrative guidance, the monolingual children may have had limited opportunities to be trained to understand internal states, including those in response to behavioural outcomes. This may be one of the reasons why, at the age of 9, monolingual Mandarin-speaking children's narrative comprehension, particularly of internal states of characters, is still at a developing stage compared to their bilingual peers.

To summarise, the present study argues that, for English-Mandarin bilinguals, school-based narrative instruction exclusively in one language may be a further reason for the uneven production of the total number of macrostructural components and certain types of macrostructural components between their two languages. Furthermore, this study contributes to the under-researched field of school-based narrative instruction of monolingual Mandarin-speaking children by documenting the first data which displays its differences from the story grammar model. It provides evidence that the various stresses placed on macrostructural components in the different school-based narrative instruction children received may be mirrored in their narrative production and comprehension of these components. The various narrative instructions used in different countries may have a different impact on children's narrative production, and this should be considered in research with school-aged children, particularly with monolingual Mandarin-speaking children and bilingual children who receive narrative

instructions in only one language.

8.3 The Effect of Narrative Activities at Home

The third objective of the present study was to examine whether the narrative activities at home had an impact on the narrative production and comprehension of both bilingual English-Mandarin and monolingual Mandarin-speaking children. This objective was proposed to gain a thorough understanding of the home environment in which the bilingual English-Mandarin and monolingual Mandarin-speaking children socialised. Many characteristics of the narrative style and language used, to which children are exposed at early stages of language acquisition throughout various narrative activities, have been the focus of prior work on the language socialisation of monolingual children. Tamis-LeMonda et al. (2012), for example, examined parent-child interactions in semi-structured play activities with their 2-year-olds and observed that mothers used more descriptive language and fewer references to locations than fathers. Other research has found that fathers use more wh-questions, clarification queries, and action instructions in their conversations than mothers (Rowe et al., 2004; Tamis-LeMonda et al., 2004). The effect of parental language use and narrative style was examined more in relation to children's language at microstructural level in these studies, such as word types and MLU. Brown et al. (1996), on the other hand, focused on 4-year-old second-born children's language use and examined their expressions of mental states in their home environment, whose findings suggested that these children discussed their internal states with their siblings and friends more than with their mothers, which were correlated with these pre-schoolers' development of theory of mind as tested using false belief tests (for wider review of the relevant 'theory of mind' context, see 2.5.4). In addition, the culturally distinctive narrative styles of parents were investigated. Minami (2002) studied mother-child interactions in American and Japanese homes and reported that Japanese mothers utilised more attention-getting devices in their interactions with their 4-year-olds, which was consistent with Asian (Japanese) culture's interdependence. He also examined the impact of this culturally particular narrative pattern on children's narratives, arguing that this was why Japanese children produced less permissible monologic narratives. Although these studies focused on different narrative activities at home and various aspects of children's development, and not every study examined children's narrative production, they show

the diversity of narrative activities with different interlocutors in children's home environments and the opportunities they may provide to delve into specific cultural narrative styles and children's narrative production.

The present study was originally designed to include home observation of narrative activities component. However, this was not feasible due to the application of Covid regulations (see Chapter 9). Fortunately, however, the fictional stories of the monolingual and bilingual children in this study, in addition to the questionnaires and interviews with their parents, have provided a wealth of discussable findings regarding their narrative production and narrative activities at home. The cultural characteristics are elaborated in the next section, while the impact of the frequency of narrative activities conducted at home by monolinguals and bilinguals that were gathered from questionnaires are discussed here.

The findings of this study do not provide substantial evidence to support the hypothesis that narrative activities at home have an impact on the narrative production and comprehension of bilingual English-Mandarin children, as measured by their comprehension and production scores for the macrostructural components in storytelling tasks, but they do support this hypothesis for the monolinguals. For the latter group, positive correlations have been found between the frequency of their narrative activities in Mandarin, and their comprehension and production scores. To break down the narrative activities into interactive, receptive, and productive categories, the monolingual children's interactive and productive activities frequencies were positively correlated with their narrative production scores. These findings suggest that the more narrative activities the monolinguals engaged with in Mandarin at home, the better narrative production and comprehension abilities they developed. It could also be inferred that increasing the frequency of narrative activities, particularly interactive and productive activities, might improve the narrative skills of monolingual children.

Similar conclusions could not be drawn for the bilingual children in this study based on statistical analysis. For the bilinguals, neither the frequency of their narrative activities in Mandarin nor in English was strongly related to their comprehension and production skills in both languages. This finding is rather surprising in the present study in terms of the bilinguals' Mandarin language, since it implies that bilingual children who engaged in more narrative activities in Mandarin did not necessarily perform better on narrative production and comprehension in that language. One possible explanation for this could be that the bilingual children typically engaged in Mandarin narrative

activities at a significantly lower frequency, resulting in a failure to detect a statistical correlation between their Mandarin narrative activities and their narrative skills. Given the infrequent engagement of bilingual children in Mandarin narrative activities and their poorer Mandarin narrative skills compared to English, however, it would be premature for the present study to conclude if increasing narrative activities at home might improve their Mandarin narrative skills. Future research could explore this issue further.

Additionally, for the bilinguals, they frequently conducted significantly more narrative activities in English than in Mandarin at home, indicating that the bilinguals use English considerably more to describe events, narrate their intentions and express their internal states than in Mandarin. This could be a further explanation for the finding that the English-Mandarin bilinguals' English narratives include more macrostructural components in total and describe more behaviours (*Attempts*) in English.

8.4 The Effect of Culture

Last, but not least, the present study has aimed to examine the influence of Chinese culture on the narrative production and comprehension of the monolingual Mandarin-speaking and bilingual English-Mandarin children. Prior research has found mixed evidence for the influence of Chinese culture on the narratives of children from a Chinese background. A number of studies (Doan & Wang, 2010; Han et al., 1998; Koh & Wang, 2013; Wang & Leichtman, 2000) have concentrated on the impact of variations between Chinese and American culture on Mandarin- and English-speaking children's narrative production. These differences can be summarised as follows: English-speaking children were socialised to prize independence and focus on their individual roles, and communicate their preferences, opinions, and feelings in narrative production. Chinese children, on the other hand, were socialised to value interdependence and learn to be members of society, whose narrative displayed more social engagement and exhibited less self-reference. Since the effects of broad independent and interdependent cultural concepts were previously identified, the present study has elected to focus on the influence of three specific cultural values on the narrative production and comprehension of the monolinguals and bilinguals: moral and introspective orientations; restrained emotional expression; and variations in relation to gender expectations.

8.4.1 Moral and Introspective Orientations

‘Moral and introspective orientations’ is the first cultural value examined in the present study in relation to monolingual Mandarin-speaking and bilingual English-Mandarin children’s narrative production and comprehension. Only a few prior studies have examined the narrative production of monolingual Mandarin-speaking children and bilingual English-Mandarin children in accordance with the cultural values of moral and introspective orientation reinforced through parental socialisation. For monolinguals, Wang and Leichtman (2000) compared 6-year-old Chinese children’s narratives to those of their American peers, finding that the Chinese children’s narratives featured more expressions of moral correctness in both personal and fictional narratives. The researchers speculated that this finding may be related to Chinese parents’ tendency to reinforce moral standards during their children’s socialisation, as observed in earlier studies (Miller et al., 1996; Miller et al., 1997). In another study (Wu et al., 1984), narrative data from Chinese children aged 2–6;6 years indicated that Chinese children exhibit moral correctness in their fictional narratives. Wu et al. (1984), however, merely presented the data without analysing it as a finding or examining it in light of the cultural value of moral and introspective orientations. In the case of bilinguals, Koh and Wang (2013) investigated dinner-time conversation between parents and English-Mandarin pre-schoolers, reporting that parents frequently asked their children to recall and reflect on their inappropriate behaviours in order to invoke more social norms and socially acceptable behaviours during the conversation. However, whether this finding was reflected in bilinguals’ narrative production was not investigated. To further validate the findings of previous fragmented research on the impact of moral and introspective cultural orientations on Chinese pre-school children, and to fill the research gap concerning the influence of this value on English-Mandarin bilingual children, this study has examined the impact of such cultural values on school-aged monolingual and bilingual children on two levels: their narrative socialisation at home and school; and their narrative production and comprehension.

According to the findings of this study, one Mandarin-speaking monolingual made explicit moral judgments regarding the story characters’ behaviour in their narrative production. Many of the Mandarin-speaking monolinguals, however, produced expressions reflecting on the moral correctness of the story character’s behaviours in response to questions concerning their comprehension of the story character’s feelings

(cf. 5.5.1). The apparent moral judgements identified in monolinguals' narrative production and comprehension are associated with their narrative socialisation at home and at school, which aids in the development of a sense of morality. The parents of the monolingual children encouraged their children to introspect and make moral judgments about their own behaviours (e.g., during episodes of conflict with others), as well as to learn from previous encounters and apply what they learned to their future behaviours (cf. 7.2.1). At school, their Chinese curriculum encouraged the monolinguals to develop a sense of morality. Despite the fact that this was not noted in any prior research on monolingual Mandarin-speaking children, their school curriculum included a course called 'Morality and Rule of Law Class' that was specifically designed to assist students in developing a sense of morality. In lower grades (Year 1–3), this was done through immersion in moral judgment training, and contemplation and introspection of historical or cultural figures. Additionally, this course provided an opportunity for monolingual children to embody what they learned through oral presentations or written compositions, reinforcing this cultural value. Therefore, it can be concluded that the cultural value of moral and introspective orientations was realised at both home and school level for Mandarin-speaking children, resulting in monolingual children's narrative production and comprehension containing reflections on characters' behaviours and expressions of moral judgments.

However, for bilinguals, it was found that their narratives in both languages lacked moral expression, despite their parents actively encouraging them to develop a sense of morality. The bilingual parent showed a tendency to pose questions about the morality of the behaviours of the characters in stories during shared reading, employed the method of introspecting and summarising the 'lesson' their child can learn from stories and stressed the implications for the child's future behaviour. This narrative approach of ensuring the child recognises their undesirable behaviour and refrains from repeating it in future was also evident in bilingual parents' responses to their children's conflicts with others. These findings are partially consistent with the findings of Koh and Wang (2013). Rather than characterising and recalling the inappropriate behaviours during parent-pre-schooler interactions observed in this study, parents of the school-aged bilinguals in the present study placed a higher premium on what their children should and should not do in the future. This may be explained by the bilinguals in this study having moved beyond the socialisation stage of what constitutes 'right' and 'wrong' behaviours.

Moreover, the bilingual children's school environments, unlike those of the monolingual children, did not provide the same level of instruction and curriculum for their moral development. Coupled with their increased exposure to a sociocultural environment in which morality is probably not as prominent as in Chinese culture, the realisation of a moral sense is not evident in bilinguals' narrative production and comprehension in both languages, at least in the present study. To summarise, this study contributes to current debates by delving deeper into the realisation of moral and introspective orientations in socialisation at home and on the curriculum at school of bilingual English-Mandarin and monolingual Mandarin-speaking children, and provides data on the impact of this cultural value on Mandarin-speaking children's narrative production and comprehension.

Additionally, the current study overturned its initial hypothesis that moral and introspective orientation values influence children's *Goal* production. Initially, I hypothesised that, as a result of the moral and introspective orientation valued in Chinese culture and the associated emphasis on 'right' behaviours, children may pay more attention to people's 'right' or 'wrong' behaviours but less attention to the 'reasons' for these behaviours (cf. 3.2.3.1). Consequently, narratives emphasising the morality of actions and omitting references to *Goal* may arise. This hypothesis is proposed based on a previous study (Gao, 2013), which found that 3–5 years old Chinese children overlook the *Goal* of characters in their storytelling, in contrast to their English-speaking peers (cf. 3.2.2).

However, in this study, monolinguals at age 9 showed significant improvement, with 80% of Chinese children being able to produce a *Goal* expression and 60% being able to produce a full GAO episode at least once in their narratives, compared cross-sectionally to Gao's (2013) result of 22.8% of full GAO episode produced. This research indicates that monolingual Mandarin-speaking children's *Goal* expression is mature at age 9, whereas no evidence exists to substantiate the influence of the cultural value of moral and introspective orientation in directing Chinese children's *Goal* expression at this age. Additionally, this outcome reinforces the argument made in the previous study that the ability to express goals in narratives is universal across languages (Stein & Glenn, 1975; Stein & Policastro, 1984). However, it is worth noting that this study's design was unable to validate the possibility of a distinct development pattern of monolingual Mandarin- and English-speaking monolinguals with regard to their *Goal* production, which may be investigated in future research.

8.4.2 Restrained Emotional Expression

‘Restrained emotional expression’ is the second cultural value examined in the present study in relation to monolingual Mandarin-speaking and bilingual English-Mandarin children’s narrative production and comprehension. Previous studies (Chang & McCabe, 2013; Wang & Leichtman, 2000) on Chinese children’s emotional expression have shown mixed results. Chang and McCabe’s (2013) study of Mandarin-speaking children aged 3–9 years found that they were less attentive to their feelings in their personal narratives than English-speaking children. Their finding supports the general hypothesis that Mandarin-speaking children produce fewer emotions than English-speaking children, one based on studies (e.g. Chao, 1995; Wu, 1996; Wang et al., 2010) that found that Chinese parents tend to discourage the expression of emotions. However, the inconsistent findings of Wang and Leichtman (2000) regarding Chinese children’s emotional expression contradict this general prediction. Wang and Leichtman (2000) reported that Mandarin-speaking children expressed more emotion in their personal and fictional narratives than their English-speaking counterparts, claiming that, under the impact of Chinese culture that emphasises the need to be attentive to others’ feelings and recognise these feelings appropriately (Dyer, 1975; Bond, 1991), Chinese children may be more sensitive to the emotions of others. Therefore, there are no clear conclusions as to whether the lack of attention to children’s emotional expression in the narrative style of Chinese parents fundamentally influences children’s emotional expression.

The data of the present study show that restrained emotional expression was evident in the Mandarin narratives of monolingual children but not in those of bilingual children. As discussed in Section 8.1, monolingual children produced less *IST as Reaction* compared to their bilingual peers in Mandarin. In terms of the type of internal state terms, monolinguals also produced far fewer emotion terms in Mandarin than their bilingual peers, despite the fact that they produced a greater number of IST terms in total (cf. 5.2.3). More strikingly, the monolinguals showed inferior performance in narrative comprehension, especially regarding the emotional internal state of the characters, compared to their bilingual peers. This contradicts Wang and Leichtman’s (2000) argument that Chinese children socialised in Chinese culture are more sensitive to the internal states of others and their finding that Chinese children produce more emotion terms than their English-speaking peers in storytelling tasks. Additionally, the

monolinguals' performance in comprehending the characters' emotions in the present study casts doubt on the assumption that monolinguals' increased sensitivity to the others' internal states, especially emotions, enables them to better perceive story characters' emotions and then convey them in their narratives more effectively.

The finding of restrained emotion expressions in the monolinguals' narratives can be attributed to the fact that the children in the present study, in contrast to their bilingual peers, were socialised at home and learned not to frequently express or discuss their emotions in detail during their interactions with their parents. Parents of the monolingual children were shown to be more inclined to place more emphasis on problem-solving in a given scenario (e.g., conflict) compared to the child's emotions. In contrast, the reactions of parents of the bilinguals in similar contexts were shown to encourage their children's emotion expressions. This is in accordance with the 'emotional-explanation' style of English-speaking parents categorised in other relevant studies (Chao, 1995; Wang & Fivush, 2005). Thus, the present study indicates that monolingual children were socialised at home to adhere to the Chinese culture's value of restrained emotional expression, which impacts their narrative production and comprehension. However, bilingual children's socialisation at home shows a bicultural tendency in light of emotional expression. Overall, it could be claimed that the comprehension and production of narratives by 9-year-old monolingual Mandarin-speaking children adhere to the cultural value of 'restraining emotional expression'. However, the same claim cannot be made for the bilinguals.

The monolingual and bilingual children's sensitivity to other people's emotions is not entirely paradoxical. This was disclosed through responses to comprehension questions on the internal states of the story characters. In this study, some children in both the bilingual and monolingual groups failed to express the feelings of the characters in the question directly; instead, they responded with the feelings of other characters that the characters being questioned would perceive in the narrative. For instance, instead of immediately responding to the question regarding the bird's feelings after saving the goats in the story, they would say 'It will feel that the baby goats must be happy to return to their mother's side (see Example (18)). This is congruent with the Chinese cultural emphasis on sensitivity to and accurate assessment of others' emotions, which has been noted previously (e.g. Bond, 1991; Wang & Leichtman, 2000), but is shown in a novel and unusual way in the present study. These findings highlight the diverse forms of the realisation of cultural values in children's narrative production,

which needs to be investigated in more detail in future studies.

8.4.3 Variations in Relation to Gender Expectations

‘Variations in relation to gender expectations’ is the third cultural value to be discussed in relation to monolingual Mandarin-speaking and bilingual English-Mandarin children’s narrative production and comprehension. In traditional Chinese culture, girls are expected to be ‘appropriate’ and ‘sensitive to others’ needs’ (Keyes, 1983). In line with this variation in relation to gender expectations, Chinese parents are more likely to discuss emotions with daughters (non-intersex) and use a more sophisticated and diverse vocabulary than with sons (Wang, 2001). Reflected in Chinese children’s narratives, Wang and Leichtman (2000) found that Chinese girls were more concerned with the moral correctness of the behaviours and internal states of the characters in their fictional stories, and expressed more positive emotions than boys in their personal narratives. Since studies arguing for the impact of gender expectations on Chinese children’s narrative production and socialisation at home were conducted before or around the turn of this century, the objective of this study was to see if gender disparities, particularly in emotion expressions, are still rooted in current Chinese parent-child socialisation practices which exacerbate gender differences in narrative production.

No evidence was found to indicate significant differences between the monolingual and bilingual boys’ and girls’ narrative comprehension and production at the macrostructural level, nor within the narrative socialisation of the monolingual and bilingual children, according to the interviews with their parents. However, it is evident that for both the monolingual and bilingual groups, more girls expressed the emotion terms in their narratives than boys. This is in line with a few monolingual and bilingual parents’ and the monolingual teacher’s comments about the differences in narrative expression between boys and girls, who stated that girls’ expressions were more delicate and emotive. These findings indicate that the typical different gender expectations in Chinese culture may persist in parental attitudes and still be realised in the emotion expressions of the monolinguals and bilinguals in the present study. However, the realisation of typical different gender expectations in Chinese culture is not evident in parents’ narrative style in these children’s narrative socialisation at home, one possible explanation for which is that relevant data were collected through interviews with a

limited number of participants' parents, which may have resulted in insufficient data on children's socialisation narratives in relation to conversations with parents about emotions. Future research could consider large-scale home observations to further corroborate the findings of this study.

8.4.4 Other Cultural Influences

Apart from the realisation of the three cultural values discussed previously in children's narrative production and comprehension, the present study has identified an additional trend in monolingual children's responses to comprehension questions that can be attributed to the influence of Chinese culture. Monolingual children exhibited a tendency to respond to comprehension questions on *Goal* of the characters with an emphasis on 'solving the problems' of the current situation.

In their responses, the story's characters typically adopt a particular action not only to attain a specific goal, but also because it is the best approach to address the situation. For instance, in the *Baby Bird* story, the cat climbed the tree not just to achieve the *Goal* of capturing the birds, but also because it was the only way to do so, owing to the cat's inability to fly (cf. 5.4.2.1, Example (1)). Such responses from monolingual children were frequent, and the *Goal* was often not even stated directly (cf. 5.4.2.1, Examples (6)–(7)). On the other hand, bilingual children did not respond in the same way to the identical questions. These tendencies may be explained by the significance Chinese parents place on 'resolving problems' in their family socialisation practices, particularly in their responses to conflicts (cf. 7.2.1), which may be influenced by Chinese culture's emphasis on 'harmony'. At the individual and societal level, social harmony is the highest ambition (Chen, 2017), and hence the ability to manage conflicts when they arise is critical. Monolingual children may thus be socialised to place a higher premium on whether or not their planned behaviour resolves the issue at hand, which may be mirrored in their responses to the comprehension questions. However, because the present study interviewed a small number of Chinese parents ($n=5$), a limited number of whom showed this tendency when describing their reactions to their children's conflicts with others (one bilingual parent and one monolingual parent), it is inconclusive whether the reasons for these monolinguals' preferences may be related to cultural effects. Nevertheless, the current researcher views this finding as an additional narrative expression with potential cultural value that requires further investigation in

future research.

Chapter 9 Conclusion

9.1 Concluding Remarks on the Findings

To synthesise the research findings of this study, it is clear that the language proficiency in the bilinguals' two languages, school-based narrative instruction and narrative activities at home and school for monolinguals and bilinguals, as well as Chinese culture, all interact and combine to influence monolingual and bilingual children's narrative production and comprehension.

The unbalanced language proficiency in the English-Mandarin bilinguals' two languages, the school-based narrative instruction in their majority language (English) only, and the significantly greater number narrative activities conducted at home and school in their majority language may all contribute to the differences found between the narratives in the bilinguals' two languages. It was also found that the English narratives of 9-year-old English-Mandarin bilingual children contained substantially more macrostructural components in total and more descriptions of behaviours of the characters than their Mandarin narratives. To compare the bilinguals with their monolingual peers, the effect of school-based narrative instruction and narrative activities is also evident. The monolinguals' Mandarin narratives include more concrete beginnings yet considerably fewer internal states, especially the emotions, of the story characters as reactions towards the behavioural outcomes of the story characters. This may be due to the combined effect of the school-based narrative instructions monolinguals received, which emphasises the description of beginnings at the expense of the expression of internal states, and the numerous narrative activities in Mandarin at home and at school to help them internalise what they have been trained. Additionally, culture exerts an extraordinary influence on children's narrative production and comprehension.

In the present study, the influence of Chinese culture is not measured merely in terms of disparities in narrative abilities across children growing up in diverse cultural environments. Beginning from the premise that culture, as knowledge and values, can be learned, be passed down from generation to generation and influence one's behaviours and behavioural choices, this study carefully examines and discusses the extent to which differences and similarities in monolingual Mandarin-speaking and bilingual English-Mandarin children's narrative production and comprehension are

influenced by the narrative socialisation at home and school under the impact of Chinese cultural values.

Two of the three cultural values examined in this study, namely moral/introspective orientations and restrained emotional expression, had an impact on the family narrative activities of parents and children with Chinese backgrounds. This resulted in Chinese children's narratives, augmented by school narrative activities that were also influenced by cultural values, containing expressions that were in line with the corresponding cultural values. It is fairly common for these children to show evident moral judgment of the characters' actions, as well as poor performance when expressing and understanding the characters' emotional states, particularly when the emotion terms are functioning as a component (*Reaction*) of the macrostructure. This can be attributed to the same two cultural values being deeply rooted in monolingual Mandarin-speaking children's narrative practices in both home and school environments. More specifically, these children were socialised both at home and school to make more judgments about their own behaviours and those of others, as well as to restrain their emotional expressions, especially in the context of conflict, where expressing emotions is not more important than solving problems.

For bilingual children, notwithstanding that the realisation of associated values varied considerably in the narrative context of their families, with some parents adopting a style that better reflected Chinese values and others embracing dual values, there is very little evidence (at least in this study) of the realisation of these two Chinese cultural values examined in their narrative production in both languages. This suggests that even though values connected to the moral/introspective orientations and restrained emotion expressions were reflected in the bilingual children's family narrative practices led by parents, more home and school narrative activities in English might inhibit the realisation of the relevant values in bilingual children's narrative production.

However, regarding the third cultural value examined in the present study, viz, variations in relation to gender expectations, little evidence has been found to support its influence on children's family narrative socialisation practices and school-based narrative instructions. Although girls on average tended to perform better on expressing the emotions of story characters, no significant gender differences have been found to have arisen from other measures of the monolingual and bilingual children's narrative production or comprehension at macrostructural level. It is at least safe to state that the different gender expectations in Chinese culture, apart from emotion expressions, are

not overly represented in this study. Additionally, the present study has identified that both the monolingual children's responses to comprehension questions and their socialisation at home emphasised 'resolving problems of the current situation'. These findings were viewed by the present researcher to be under the influence of 'harmony' valued in Chinese culture, which needs to be verified in future studies.

To conclude, the present study provides rich evidence regarding the multiplicity of monolingual Mandarin-speaking and bilingual English-Mandarin school-aged children's narrative production, under the influence of language proficiency, school-based narrative instruction, narrative activities at home and school, and, most importantly, Chinese culture. Unlike the majority of previous research in this field, which has concentrated on other language pairs and one or two theoretical aspects, this study has examined the effect of all four of these factors on the narrative production and comprehension of monolingual and bilingual children of Chinese origin. As such, it shows the critical nature of taking into account the intricacies of school-aged children's family, school, and sociocultural environments when evaluating their narrative development.

9.2 Theoretical Contributions and Educational Implications

This study contributes to the research field of narrative development of monolingual Mandarin-speaking and bilingual English-Mandarin-speaking children, the narrative assessment for monolingual and bilingual children, cultural influences on monolingual and bilingual children's narrative development, and monolingual and bilingual English-Mandarin narrative education.

First, the current study contributes to the compensation of the perceived research gap in the field of Mandarin-speaking children's narrative development. Though an increasing number of studies on the narrative development of bilingual children has emerged in recent years, little research has been conducted cross-linguistically to compare English and Mandarin narratives, not to mention that such research has been conducted on English-Mandarin bilingual children. In addition, most of the existing research has been conducted on pre-schoolers in the area of Mandarin-speaking children's narrative development, so that an understanding of the picture of school-aged children's narrative performance is still lacking. Therefore, more data have been collected in this study to reflect the narrative production and comprehension of school-

aged monolingual Mandarin-speaking and bilingual English-Mandarin children to enrich the database of bilingual children acquiring and producing two separate languages in different contexts. These data will also be useful to scholars who wish to conduct further research in a similar field.

Secondly, no unified narrative assessment tool has been designed or adapted to assess Chinese children's narrative production and comprehension. Therefore, by adapting and using the MAIN to examine monolingual Mandarin-speaking children's narratives, this research validates the cross-linguistic feature of the MAIN as a reliable assessment tool for Mandarin-speaking children.

Most importantly, this study is the first to specifically focus on and find evidence to support the reflection of school-based narrative instruction and cultural values in the content and macrostructural level of children's narrative production, as well as narrative comprehension. On the one hand, it proposes the importance of taking into account the different emphasis of macrostructural components in Chinese children's school-based narrative instruction when examining and comparing the narrative production and comprehension of school-aged Chinese children with children from other language backgrounds. On the other hand, it highlights the need to consider cultural influences on children from a Mandarin language background in the area of narrative development for future studies. Moreover, this study suggests that monolingual school-aged Mandarin-speaking children's unsatisfactory development of comprehension and production of internal states can be attributed to the restrained emotional expression deeply rooted in both their family narrative environment and narrative training received at school. Although the present study did not focus on children with specific language impairments, by supplying data and findings from normal developing Mandarin monolinguals and Mandarin-English bilinguals, it also has implications for both clinical and research contexts. For the usage of the MAIN and any other assessment tools that consider the internal state terms as occupying the initiating events and reactions of narrative macrostructural components, it may be critical to consider the influence of Chinese culture when clinically assessing the narratives of children from Mandarin-speaking backgrounds.

In regard to the educational implications of children's narrative development, on the one hand, it is intended that this study might serve as a point of reference for parents, especially those raising children bilingually and/or who want to create appropriate language settings to help their children's narratives develop successfully in two

languages. A general description of bilingual children's narrative performance at age 9 and the experiences of bilingual children's parents is provided. For these parents, it may be helpful for them to understand the picture of children's narrative at a certain age in order to monitor the latter's narrative development. In addition, the relation of Mandarin narrative activities to narrative development is highlighted for its impact on monolingual children. This may be instructive for parents in the regulation of language input and the adjustment of the frequency of narrative activities. Moreover, this study has documented the reasons for the English-Mandarin bilingual children's lower frequency in reading books in Mandarin (cf. 7.2.3). Thus, these parents may consider reading more with their children or selecting books more carefully for their children's language level and cognitive ability.

On the other hand, this study also has implications for educators of Mandarin-speaking children. In the case of the children with a Chinese cultural background, it is important for these educators to understand that cultural differences may influence their students' narratives. Furthermore, for Mandarin-language teachers, the differences between monolingual and bilingual children's narrative production regarding the expression of internal states might have implications for their direct teaching of narrative, and particularly for those in China, as their teaching pedagogy focuses more on the portrayal of events than the internal states of the characters.

9.3 Limitations of this Study and Implications for Future Research

First, as suggested in Section 4.3, although the mixed research method used in this study provides a comprehensive picture of the children involved, the sample size is relatively small. The data collection process was also influenced by the Covid-19 outbreak in China in early 2020 and the rapid outbreak in Ireland thereafter. Subsequently, the stringent, year-long regulations, including international travel restrictions, led to all face-to-face sessions being switched to online, which included not only the method of data collection but also the ongoing communication around recruiting participants. It was also no longer feasible to visit the participants' homes for observation and data collection purposes. Moreover, coupled with school closures, these special measures made it difficult to contact potential study participants through school staff at the outset of the study, although a mixed research approach was adopted in this study to maximise data collection. Possibility of collecting the data from the

same group of participants over a long period of time, viz, 6 months, was therefore eliminated. Furthermore, due to the one-week interval time required between the children's two narrative assessments in both languages and the need for parents to complete questionnaires and interviews, it was not easy to secure the participation of 20 participants per group. In preparing the quantitative analysis of the children's narratives and the questionnaire for their parents, particular attention was paid to checking the normal distribution of the data on the basis of which the statistical tests were decided. However, the relatively small sample size may result in certain statistical significant differences not being revealed (as discussed in Chapter 8) in a way that hinders the generalisability of the results of this study. Future studies should engage a larger number of children across a larger age range of Mandarin-speaking children to finalise the developing trend of comprehension and production of narrative at macrostructural level, particularly for the internal states. It may also be worthwhile to explore such questions as *When do monolingual Mandarin-speaking children achieve their ceiling in comprehension?* and *To what extent do cultural values and direct narrative teaching of the 'six elements' influence the developing patterns of monolinguals' story comprehension?* Moreover, future studies may also pay attention to younger bilingual children to further verify the influence cultural values may have before they enter the extra-sociocultural environment.

The second limitation relates to the analysis of the bilinguals' input in both languages. The results of the analysis of language input were considered with caution in this study and were not discussed in depth in order to draw conclusions for the following two reasons. First, in the present study, parents were asked to make a preliminary estimate of language input using the options provided by the questionnaire. Second, the results of the analysis showed that language input was not associated with the bilinguals' narrative production in both languages. Future research, ideally using extensive interviews with caregivers (Hoff et al., 2012) or language diaries (designed by De Houwer & Bornstein, 2003, as adopted in Place & Hoff, 2011 in English) to closely track bilingual children's daily language input, may help to collect more detailed data to further validate the findings of this study.

Additionally, in the case of interviews conducted with the parents, the number of samples of different groups was variable. This was influenced by the order of the data collection, whose final stage involved the interviews. Although the parents of the participating children were informed of the process in the Participant Information

Leaflet, only a fraction responded when they were contacted for an interview after they had completed the questionnaire and their child had completed the narrative assessment. As the purpose of the interviews was to gather further information about the development of the children's narratives in relation to RQ 3 and its sub-questions from the perspective of the parents and teachers, it was not practical to interview all the parents and teachers of the children involved. Furthermore, despite the researcher's best intentions, she was also not able to interview the bilingual children's teachers in their public primary schools, so information on the bilingual children's English narrative training at school was collected from their parents. Consequently, this information was only used as a supplement and was not discussed in depth in the analysis. However, the adequate data from interview with a teacher in China enables a detailed discussion of narrative training in Chinese primary schools in this study, and shows meaningful differences from the *Story Grammar*. Therefore, as regards future research, observations involving school classrooms could, where realistic conditions permit, enable comparative studies of narrative training in Chinese and Irish schools, thus further exploring pedagogical and cultural differences.

A third limitation of this study is that it does not include the monolingual English-speaking children as a comparison group. For the objective reasons related to Covid described above, finding a group of English-speaking children had proved to be very difficult at the initial stage of data collection, so this part of the design had to be changed. This decision was made because a number of studies had already used the MAIN with English-speaking bilingual children, and there were also comparative studies with bilingual English-Mandarin speaking children and their monolingual English peers, using other elicitation tools. What is currently lacking in this area of enquiry, however, is a cross-cultural comparison between school-age bilingual children and their Chinese peers, and a discussion of a comparison of Chinese culture realisation in narrative production between these two groups. However, it has to be acknowledged that there is a lack of discussion of monolingual English-speaking children in this study, and the existing findings could be further corroborated in future related research.

Finally, further research might focus on the influence of cultural values on the production of children's narratives. As discussed in 8.4.4, an underlying cultural reflection in the monolingual Chinese children's narratives is in the expression of an understanding of the *Goal* not just as something to be achieved, but as the only solution in a specific context, which needs to be verified in future studies with a larger research

sample and compared with monolingual children from other cultural backgrounds. This study did not find evidence in children's narrative other than those discussed, but such questions as to when these cultural values begin to influence the expression of children's narratives, how their influence changes over time, i.e. as children grow older and into adulthood, and whether there are still other specific cultural values whose influence gradually emerges in narratives as children grow older, remain unresolved. Furthermore, such questions as *How do bilingual children's bilingual narratives change (if ever) once they begin receiving Chinese narrative training in language schools?* could furnish another direction for future research. Nevertheless, this study is a step forward in discussing the realisation of the cultural values of children's narrative production at both macrostructural and microstructural expression levels, under the influence of their narrative training in the home and school environment and its impact. Further studies of cultural values realisation, not limited to Chinese culture, are therefore welcomed.

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Appendix A: Scripts of the Original MAIN Stories and Examples of English and Mandarin Narratives Produced by a Participating Child

A 1.1 Scripts of the Original MAIN Stories

The original English scripts of the *Baby Birds* and *Baby Goats* stories were provided by the MAIN (Gagarina et al., 2012, p. 138). The Mandarin scripts of these two stories were translated by the present researcher. As suggested by the MAIN (Gagarina et al., 2012, p. 138), the marking of macrostructural components and internal state terms in the scripts below is given in the following way:

goal attempt outcome *internal state terms*

Baby Birds in English

Pictures 1/ 2: One day there was a mother bird who *saw* that her baby birds were *hungry*. She flew away because she wanted to find food for them. A *hungry* cat *saw* that the mother bird was flying away and *meowed*: “Mmm, nice, what do I see here in the nest?”

Pictures 3/ 4: The mother bird came back with a big worm for her children, but she did not *see* the cat. She was *happy* about the juicy worm for her babies. Meanwhile the *mean* cat started climbing up the tree because he wanted to catch a baby bird. He grabbed one of the baby birds. A *brave* dog that was passing by *saw* that the birds were in great danger. He decided to stop the cat and save them.

Pictures 5/ 6: He *said* to the cat: ‘Leave the baby birds alone’. And then he grabbed the cat’s tail and pulled him down. The cat let go of the baby bird and the dog chased him away. The dog was very *glad* that he could save the birds, and the cat was still *hungry*.

Baby Birds in Mandarin

图 1/2: 一天, 鸟妈妈看见小鸟饿了, 于是飞到别处去找食物。饥饿的小猫看到鸟妈妈飞走以后, 说到: “哦, 太好了, 看我在鸟窝里发现了什么?”

图 3/4: 鸟妈妈叼着一条大虫子回来了, 她很高兴。但是她没有看到小猫。这时, 这只讨厌的猫开始爬树, 它想抓住小鸟。小猫抓住了其中一只小鸟。一只

勇敢的小狗看到了，它决定停下来去救小鸟。

图 5/6: 小狗对小猫说: “放开小鸟”，然后他抓住了小猫的尾巴，把它拽下了树。小猫放开了小鸟，然后小狗追着赶跑了小猫。小狗救了小鸟，它很高兴。小猫最后还是很饿。

Baby Goats in English

Pictures 1/ 2: One day there was a mother goat who *saw* that her baby goat had fallen into the water and that it was *scared*. She jumped into the water because she wanted to save it. A *hungry* fox *saw* that the mother goat was in the water and *growled*: ‘Mmm, nice, what do I see here on the grass?’

Pictures 3/ 4: The mother goat pushed the baby goat out of the water, but she did not *see* the fox. She was *glad* that her baby did not drown. Meanwhile the mean fox jumped forward because he wanted to catch the other baby goat. He grabbed the baby goat. A *brave* bird that was flying by *saw* that the baby goat was in great danger. He decided to stop the fox and save the baby goat.

Pictures 5/ 6: The bird said to the fox: “Leave the baby goat alone”. And then he flew down and bit the fox’s tail. The fox let go of the baby goat and the bird chased him away. The bird was very *happy* that he could save the baby goat, and the fox was still *hungry*.

Baby Goats in Mandarin

图 1/2: 一天，羊妈妈看见小羊掉到水里了。小羊很害怕，羊妈妈跳到水里去救它。一只饥饿的狐狸看到了，说到: “哦，看我在草地上发现了什么？”

图 3/4: 羊妈妈把小羊推上了岸，它很高兴。但是它没有看到狐狸。同时，那只狡猾的狐狸向前扑去，想要抓住在吃草的小羊。狐狸抓住了小羊。一只勇敢的小鸟看到了，它决定停下来去救小羊。

图 5/6: 小鸟对小羊说: “放开小羊”，然后它飞下来咬了狐狸的尾巴。狐狸放开了小羊，然后小鸟把它赶跑了。小鸟救了小羊，它很高兴。但是狐狸还是很饿。

A 1.2 Examples and Segmentation of English and Mandarin Narratives

Produced by Child EMBC 9

Baby Bird Story in Mandarin

一只妈妈鸟 开心地 看着两只小鸟 // 小鸟 搁 它们的树里头 // 然后小鸟 飞走 的时候, 去找吃的 给两只小鸟 // 猫 搁 树底下 想 爬上这个树 // 他 想吃 小鸟 // 鸟回来的时候, 猫已经爬到树的半了 // 然后一个狗来了 // 猫马上把一只小鸟抓了 // 那妈妈鸟马上 叫 // 那狗抓那个猫了 // 妈妈鸟这回 开心得 看着两只小鸟 // 狗把猫追跑了

Baby Goat Story in English

One day there was two little goats playing in the countryside // One little goat was in the lake swimming // One little goat was *happily* ranching the grass // The father goat came to *see* what they were doing // The father goat helped the little goat in the lake out // The other little goat was still eating the grass // Then the fox came and saw the little goats // The father and the other little goat didn't *notice* // but only this little goat that was ranching grass *noticed* // The fox jumped on it and caught the little goat // and then the other two goats still did not *notice* the fox // Then the raven came down to bite the fox's tail // And then the little goat run away // and then the raven started chasing the fox.

小鸟的故事评分表 (Scoring sheet for *Baby Birds* story)

第一部分：表达

A. 故事结构；B. 故事复杂性；C. 表示内部状态的词语 (IST)

A. 故事结构

		正确回答示例	得分	注解
A1.	场景	时间、地点。例如：很久很久以前 / 一天 / 从前... 在森林里 / 在草地上 / 花园里 /	0 1 2	1
情节 1: 鸟妈妈 (出场人物: 小鸟和鸟妈妈)				

A2.	IST 引发事件	鸟妈妈 看见小鸟饿了 / 想要吃饭 小鸟 饿了 / 想吃饭	0	1	0
A3.	目标	妈妈 想喂小鸟吃饭; 去抓 / 找 / 拿虫子	0	1	0
A4.	行动	妈妈 飞走了 / 走了 / 去找食物了	0	1	1
A5.	结果	妈妈 找 / 抓 / 拿到了食物; 叼着虫子回来了; 喂了小鸟 小鸟 吃到了虫子 / 食物	0	1	0
A6.	IST 表示回应	鸟妈妈 很高兴 / 满意 小鸟 很高兴 / 满意 / 不饿了	0	1	0
情节 2: 小猫 (出场人物: 小猫和小鸟)					
A7.	IST 引发事件	小猫 看见鸟妈妈飞走了 / 看见小鸟 自己在鸟巢里 / 看见了食物 小猫 很饿 / 小猫流口水了 / 小猫想“好吃的”	0	1	0
A8.	目标	小猫 想吃 / 杀了小鸟	0	1	1
A9.	行动	小猫 爬上了树 / 跳上了树 / 试着去抓小鸟	0	1	1
A10.	结果	小猫 抓到了 / 叼住了小鸟	0	1	1
A11.	IST 表示回应	小猫 很高兴 小鸟 很害怕	0	1	0
情节 3: 小鸟 (出场人物: 小鸟, 小猫和鸟妈妈)					
A12.	IST 引发事件	小狗 看见小鸟有危险 / 小猫抓住了小鸟	0	1	0
A13.	目标	小狗 决定 / 想要阻止小猫; 帮 / 帮助 / 保护 / 救小鸟	0	1	0
A14.	行动	小狗 把小猫拉下 / 拽下树 咬了 / 攻击了小猫 / 抓住了小猫的尾巴	0	1	1
A15.	结果	小狗 把小猫赶跑了 / 小猫跑了 小猫 放开了小鸟 / 逃跑了 小鸟 被救了	0	1	1
A16.	IST 表示回应	小狗 松了一口气 / 高兴 / 骄傲 小猫 很生气 / 失望 小鸟 庆幸 / 高兴被救了	0	1	1
A17.	总得分 (共计 17 分) :				8

B. 故事复杂性

(请注意此项是对 A 项结果的分析.)

行动—结果序列 的出现次数	单一目标的出现 次数（没有行动 和结果）	目标—行动/ 目 标—结果序列的 出现次数	目标—行动—结 果序列的出现次 数
B1.	B2.	B3.	B4.
1	0	0	1

第二部分：理解

最右一栏显示了 EMBC9 的孩子的得分。

		正确回答示例	正确回答示例	得分	注解
0	你喜欢这个故事吗？	热身问题，不计分			
D1.	为什么鸟妈妈飞走了？ (问题指向图 1-2) (情节 1: 目标/ IST 引发事件)	想要找食物 / 虫 子 来喂小鸟； 小鸟很 饿	飞走了 / 去工作	0 1	1
D2.	小鸟有什么感觉？ (问题指向 to 图 1) (IST 引发事件)	不好 / 饿	很好 / 还可以/ 高兴 / 惊喜 / 孤 单 害怕 / 恐惧	0 1	1
D3.	<i>(仅在被试没有给出 问题2答案理由的时 候提问问题3。如果 被试已给出正确的 理由，则问题3得1 分，继续提问问题 4)</i> 为什么你觉得小鸟 会感觉很糟糕/饿？	因为它们张着嘴 要食物/ 鸟妈妈 去找食物/ 鸟妈 妈叼着虫子回来 要喂小鸟 / 小 鸟一直很饿	因为它们高兴/ 在唱歌； 因为它们想要跟 妈妈一起去/ 害 怕小猫/ 很害怕 因为它们 看见 了小猫	0 1	1
D4.	为什么小猫爬树呢？ (问题指向图 3) (情节 2: 目标)	想要抓住 / 杀了 / 吃了小鸟； 因为小猫喜欢吃 小鸟 / 忍不住想 吃小鸟/ 想抓住 鸟妈妈看不到 / 不在的机会	想跟小鸟一起玩	0 1	1

D5.	小猫觉得怎么样? (问题指向图 5-6) (IST 表示回应)	还是饿/ 不好/ 生气/ 害怕/ 失望	很好/ 还可以/ 高兴/ 好玩儿	0 1	1
D6.	(仅在被试没有给出 问题5答案理由的时 候提问问题6。如果 被试已给出正确的 理由, 则问题6得1 分, 继续提问问题 7) 为什么你觉得小猫 感觉不好/ 饿/ 害 怕	没抓到小鸟/ 害 怕 小狗/ 还很饿; 因为小狗在追它 / 把它拉下来/ 咬了小猫的尾巴	高兴/ 好玩儿 / 飞了起来; 因为小狗抢走了 小猫的食物	0 1	1
D7.	为什么小狗抓住小 猫的尾巴? (问题指 向图 5) (情节 3: 目标)	决定 / 想要阻止 小猫; 救 / 拯救小鸟/ 帮助小鸟	想要自己吃小鸟 / 跟小猫一起玩 儿	0 1	1
D8.	你想象一下, 当小 狗看见小鸟的时 候, 小狗会有什么 感觉? (问题指向 图 6) (IST 表示回应)	好 / 很好/ 高兴 / 松口气 / 心满 意足 / 骄傲 / 觉 得自己像个英雄 /	很坏/生气/ 难 过 / 不高兴 / “我必须抓住 小猫” / 饿	0 1	0
D9.	(仅在被试没有给出 问题8答案理由的时 候提问问题9。如果 被试已给出正确的 理由, 则问题9得1 分, 继续提问问题 10) 为什么 你觉得小狗 会感到很好 / 心满 意足 / 骄傲高兴等 等?	因为 他阻止了 小猫/ 把小猫弄 下了树/ 救了小 鸟/ 看见小鸟很 安全 / 高兴 / 没 受伤	因为他在笑/ 小 狗 看起来就是 这样/ 没抓到小 猫/ 想要自己吃 小鸟	0 1	0
D10.	鸟妈妈和小鸟更喜 欢谁, 小猫还是小 狗? 为什么?	小狗 - 给出至 少一个理由 (他 救了 / 帮助了小 鸟/ 把小猫赶跑 了)	小猫/ 我不知道 / 其他不相关的 回答	0 1	1
D11.	总得分 (共计 10 分) :				8

Scoring sheet for *Baby Goats* Story

Section I: Production

A. Story Structure; B. Structural complexity; C. Internal State Terms (IST)

A. Story Structure

		Examples of correct responses	Score	Comments
A1 .	Setting	Time and/or place reference, e.g. once upon a time/one day/long ago... In a forest/in a meadow/at the lake/at the pond...	0 1 2	2
<i>Episode 1: Mother/Goat (episode characters: baby goat and mother/goat)</i>				
A2 .	IST as initiating event	Baby goat was scared/in danger/drowning/needed help/cried/called the mother <Mother/Goat etc.> saw that baby goat was scared/in danger/drowning/couldn't swim/was worried about the baby goat in the water	0 1	0
A3 .	Goal	Mother goat wanted to help the baby/to save/rescue the baby/to push the baby out of the water	0 1	0
A4 .	Attempt	Mother goat ran/went into the water/is pushing	0 1	0
A5 .	Outcome	Mother goat pushed the baby out of the water/saved/rescued the baby Baby goat was saved/out of the water	0 1	1
A6 .	IST as reaction	Mother goat was happy/relieved Baby goat was relieved/satisfied/happy/glad/not scared any more	0 1	0
<i>Episode 2: Fox (episode characters: fox and baby goat)</i>				
A7 .	IST as initiating event	Fox saw mother looking away/saw that the baby was alone/saw that there was food/fox was hungry	0 1	1
A8 .	Goal	Fox wanted to eat/catch/kill the baby goat	0 1	0
A9 .	Attempt	Fox jumped towards/jumped up/jumped out/tried to reach/grab/catch the baby goat	0 1	1

A1 0.	Outcome	Fox got/grabbed/caught the baby goat	0	1	1
A1 1.	IST as reaction	Fox was happy Baby goat was scared	0	1	0
<i>Episode 3: Bird</i> (episode characters: bird, fox and baby goat)					
A1 2.	IST as initiating event	Bird saw that the goat was in danger Baby goat was in danger	0	1	0
A1 3.	Goal	Bird decided/wanted to stop the fox / help/protect/save the baby goat	0	1	0
A1 4.	Attempt	Bird bit/dragged the fox's tail/ attacked/chased the fox	0	1	1
A1 5.	Outcome	Bird chased the fox away Fox let go of the baby goat/ran away Baby goat was saved / rescued	0	1	1
A1 6.	IST as reaction	Bird was relieved/happy/proud to have saved / rescued the baby goat/ Fox was angry/disappointed Baby goat/goats was/were relieved/happy/safe	0	1	0
A1 7.	Total score out of 17:				8

B. Structural complexity

(Note that this results from subsection A.)

Number of AO Sequences	Number of single G (without A or O)	Number of GA / GO sequences	Number of GAO sequences
B1.	B2.	B3.	B4.
2	0	0	0

Section II: Comprehension

The right-hand column shows how the child EMBC9 was scored.

		Examples of correct responses	Examples of wrong responses	Score	Comments
0	Did you like the story?	Warm-up question, not scored			
D1 .	Why was the mother goat in the water?	Wants to save/to help/rescue/	Is swimming/ playing/wants to take a bath/to wash herself/to	0 1	1

	(point to pictures 1-2) (Episode 1: Goal/IST as initiating event)	worried about the baby/the baby goat is in danger/ drowning/scared/ the baby was crying for help	wash the baby goat		
D2 .	How does the baby goat feel? (point to baby goat in the water, picture 1) (IST as initiating event)	Bad/scared/in danger/horrified	Good/fine/ happy/ playing/freezing/ cold/hungry/thirsty/dirty/clean/stupid/refreshed	0 1	1
D3 .	<i>(only ask D3 if the child gives a correct response without explanation/rationale in D2. If a correct explanation is provided in D2, then give a point in D3 and proceed to D4)</i> Why do you think that the baby goat is feeling bad/scared/in danger etc.?	Because he has fallen into the water/is not able to get out of the water/is drowning/ cannot swim	Because he is hungry/swimming / playing in the water/wasn't allowed to stand there	0 1	1
D4 .	Why does the fox leap forward? (point to picture 3) (Episode 2: Goal)	Wants/to get/to kill/to eat the baby goat/couldn't resist to eat the baby goat/ takes the opportunity when mother is not looking/is far away	To play with the baby goat	0 1	1
D5 .	How does the fox feel? (point to picture 5-6) (IST as reaction)	Bad/sad/angry/ mad/scared/still hungry/hurt/stupid/ disappointed	Good/fine/happy/ playful	0 1	1
D6 .	<i>(only ask D6 if the child gives a correct response without explanation/rationale in D5. If a correct explanation is provided in D5,</i>	Because he did not get the baby goat/he was still hungry/ afraid/scared of the bird/the bird was biting/ chasing him	Because the bird saw that the goat was in danger/the fox is running away/I don't know	0 1	1

	<i>then give a point in D6 and proceed to D7)</i> Why do you think that the fox is feeling bad/scared/hungry/disappointed etc.?				
D7 .	Why does the bird bite the fox's tail? (point to picture 5) (Episode 3: Goal)	Wants/decided to save/rescue the baby goat/wants to stop the fox/to make the fox let the goat go/saw that the goat was in danger	Wants to eat the fox/eat the goat/play with the fox	0 1	1
D8 .	Imagine that the bird sees the goats. How does the bird feel? (point to picture 6)	Good/fine/happy/relieved/satisfied/proud/like a hero	Bad/sad/angry/mad/sorry/stupid/"I have to get the fox"	0 1	1
D9 .	<i>(only ask D9 if the child gives a correct response without explanation/rationale in D8. If a correct explanation is provided in D8, then give a point in D9 and proceed to D10)</i> Why do you think that the bird is feeling good/fine/happy etc.?	Because he stopped the fox/got the fox out of there/saved/rescued the goat/sees that the goats are happy/unharmed/n ow the fox won't come back	Because he is smiling/angry at the fox/wants to eat the baby goat himself	0 1	1
D10.	Who does the mother goat like best, the fox or the bird? Why?	The bird – give at least one reason (he saved/helped the baby goat/chased the fox away)	The fox/I don't know / other irrelevant answer	0 1	1
D11.	Total score out of 10:				10

Appendix B: Questionnaire

1. Name: Code (example: MMC1 stands for monolingual Mandarin-speaking child #1)

2. Date of birth _____

3. Please specify your child's first language (L1)/second language (L2) is?

L1 is _____

L2 is _____

Other languages _____

4. In what country was your child born?

☐ In country of first language(L1), which is _____

☐ In country of second language(L2), which is _____

☐ In other country, which is _____

5. Since when has your child lived in the country of first language (L1)? _____
_____(Year, Month)

6. Since when has your child lived in the country of second language (L2)? _____
_____(Year, Month)

7. Birth order

☐ 1

☐ 2

☐ 3

- ☐ Put the number

8. How old was your child when he/she spoke the first words? _____ (year(s), months)

9. Does your child currently go to a school?

- ☐ Yes, school from _____
- ☐ No

If yes, what kind of school?

- ☐ Bilingual
 - ☐ Monolingual L1 = child's first language
 - ☐ Monolingual L2 = child's second language
 - ☐ Other. What kind of other?
-

10. Did your child go to a kindergarten/daycare before the school?

- ☐ Yes, school from _____
- ☐ No

If yes, what kind of kindergarten/daycare?

- ☐ Bilingual
 - ☐ Monolingual L1 = child's first language
 - ☐ Monolingual L2 = child's second language
 - ☐ Other. What kind of other?
-

11. Have you ever been concerned about your child's language?

- ☐ No
- ☐ Yes. Specify why? _____

12. Has anyone in your family had any speech or language difficulties?

- ☐ No
- ☐ Yes. Specify who, e.g., mother, father, sibling(s)? _____

13. Has your child ever had hearing problems?

- ☐ No
- ☐ Yes

14. In your opinion, does your child hear normally?

- ☐ No
- ☐ Yes

15. Information about the parents

	Specify your first language (L1)	Specify your second language (L2)	Specify other languages you speak	How long have you been living in Ireland/China?	Your education	Your occupation
Mother						
Father						

16. What language do you speak with your child?

Mother

- ☐ Predominantly my first language (L1)
- ☐ Predominantly my second language (L2)
- ☐ Both first and second language

- ☐ Other language(s). Specify which?

Father

- ☐ Predominantly My first language (L1)
- ☐ Predominantly My second language (L2)
- ☐ Both first and second language
- ☐ Other language(s). Specify which?

17. What languages does your child speak now?

- ☐ Child's L1, which is _____
- ☐ Child's L2, which is _____
- ☐ Other languages, which are _____

18. What languages is your child exposed to?

- ☐ Child's first language (L1), which is _____
- ☐ Child's second language (L2), which is _____
-
- ☐ Other languages, which are _____

19. At what age did your child's exposure for second language (L2) begin?

- ☐ From birth
- ☐ Before age 1
- ☐ Before age 3
- ☐ Before age 5
- ☐ From age _____

20. Is your child exposed to language (L2) in

- ☐ Kindergarten
- ☐ School

- ☐ With friends
- ☐ With siblings/ parents/ other relatives
- ☐ TV/ computer/ books

Other _____

21. Estimate, in terms of percentages, how often your child is exposed to different languages per day (in all daily activities combined)?

☐ His/ her first language (L1)	☐ His/ her second language (L2)	☐ Other languages
☐ 0%	☐ 0%	☐ 0%
☐ 25%	☐ 25%	☐ 25%
☐ 50%	☐ 50%	☐ 50%
☐ 75%	☐ 75%	☐ 75%
☐ 100%	☐ 100%	☐ 100%

22. Please estimate your child's language skills by ticking the appropriate box.

	Very well	Quite well	Quite badly	Very badly
How well does your child <u>understand</u> his/ her first language (L1)				
How well does your child <u>understand</u> his/ her second language (L2)				
How well does your child <u>speak</u> his/ her first language (L1)				
How well does your child <u>speak</u> his/ her second language (L2)				

23. In your opinion, which language does your child speak best?

- ☐ His/ her L1

- ☐ His/ her L2
- ☐ Other language, which is _____

24. In your opinion, does your child like/ prefer any of the languages more than others?

- ☐ No
- ☐ Yes, which is _____

25. What type of storytelling activities does your child regularly do at home?

- ☐ Reading books by themselves
- ☐ Reading books with others
- ☐ Telling stories about what happened at school
- ☐ Telling stories about what have been read
- ☐ Listening to songs and singing
- ☐ Watching TV/ DVD/ computer games
- ☐ Talking about TV/ DVD/ computer games that watched
- ☐ Doing role plays with toys
- ☐ Doing role plays with friends/siblings
- ☐ Other (please specify as many as you can):

26. Does your child have any literacy homework (reading, writing stories) which is assigned by school?

- ☐ Yes, what kind of homework

- ☐ No

27. Does you child read in English?

- ☐ Yes

- ☐ No

28. Does your child write in English?

- ☐ Yes
- ☐ No

If yes, at what age did your child start the acquisition of written English? _____

29. Please indicate the frequency of the following activities carried out with your child in English during the last month

	Never	Twice a month	Once or twice a week	Almost every day
Reading books with others				
Reading books by themselves				
Telling stories about what happened at school				
Telling stories about what they read at school				
Talking about TV/DVDs/computer games that they watched				
Doing role plays with friends/siblings				
Listening to songs and singing				
Watching TV/DVDs/computer games				
Doing role plays with toys				
Writing stories				
Other activities (please specify _____)				

30. Does your Child read in Chinese?

- ☐ Yes, in *Pinyin* only
- ☐ Yes, in Chinese Characters only
- ☐ No, in both *Pinyin* and Chinese characters

31. Does your child write in Chinese?

- ☐ Yes, in *Pinyin* only
- ☐ Yes, in Chinese Characters only
- ☐ No, in both *Pinyin* and Chinese characters

If yes, at what age did your child start the acquisition of written Chinese? _____

32. Please indicate the frequency of the following activities carried out with your child in Chinese during the last month

	Never	Twice a month	Once or twice a week	Almost every day
Reading books with others				
Reading books by themselves				
Telling stories about what happened at school				
Telling stories about what they read at school				
Talking about TV/DVDs/computer games that they watched				
Doing role plays with friends/siblings				
Listening to songs and singing				
Watching TV/DVDs/computer games				
Doing role plays with toys				

Writing stories				
Other activities (please specify_____)				

问卷调查 (Mandarin Version of the Questionnaire)

1. 孩子编号(例如: MMC1 代表汉语单语儿童#1)
2. 出生日期 _____
3. 你的孩子的母语/第二语言是什么?

母语是_____

第二语言是_____

4. 孩子的出生地
 - ☐ 母语国家 _____
 - ☐ 二语国家_____
 - ☐ 其他: _____

5. 您的孩子在母语国家生活了多长时间了? _____(年, 月)

6. 您的孩子在二语国家生活了多长时间了? _____(年, 月)

7. 出生顺序

- ☐ 1
- ☐ 2
- ☐ 3

☐ 请写出具体数字_____。

8. 请回忆孩子几岁时说出了第一句话 _____（岁，月）

9. 你的孩子还在在上小学吗？

☐ 是的，从_____岁开始上学。

☐ 不是。

如果答案为“是”，请选择学校性质：

☐ 双语学校

☐ 母语学校 = 孩子的母语

☐ 非母语学校 = 孩子的第二外语

☐ 其他。请写出具体情况：_____

10. 你的孩子在上小学之前上过幼儿园吗？

☐ 是的，从_____岁开始上学。

☐ 不是。

如果答案为“是”，请选择学校性质：

☐ 双语学校

☐ 母语学校 = 孩子的母语

- ☐ 非母语学校 = 孩子的第二外语

其他。请写出具体情况：_____

11. 是否担心过孩子的语言水平？

- ☐ 否。
- ☐ 是。为什么？_____

12. 是否有家庭成员存在讲话困难或语言功能障碍？

- ☐ 否
- ☐ 是。请写出具体成员。例如：妈妈，爸爸，兄弟姐妹？_____

13. 您的孩子是否有听力障碍？听力损伤？

- ☐ 否
- ☐ 是

14. 您认为您的孩子听力是否正常？

- ☐ 否
- ☐ 是

15. 父母情况

	您的母语是？	您的第二语言是？	是否能说其他语言？	在爱尔兰/中国居住了多长时间？	学历	职业
母亲						
父亲						

16. 您和您的孩子用什么语言交流？

母亲

- ☐ 我的母语
- ☐ 我的第二语言
- ☐ 母语和第二语言
- ☐ 其他语言，它们是 _____

父亲

- ☐ 我的母语
- ☐ 我的第二语言
- ☐ 母语和第二语言
- ☐ 其他语言，它们是 _____

17. 您的孩子现在说什么语言？

- ☐ 孩子的母语，是 _____
- ☐ 孩子的第二语言，是 _____

☐ 其他语言，它们是 _____

18. 您的孩子现在接触哪些语言？

☐ 孩子的母语， 是_____

☐ 孩子的第二语言，是 _____

☐ 其他语言，它们是 _____

19. 您的孩子从什么时候起开始接触她 / 他的第二语言？

☐ 从出生起

☐ 1 岁以前

☐ 2 岁以前

☐ 5 岁以前

从 _____岁起

20. 您的孩子在哪儿接触第二语言？

☐ 学校

☐ 和朋友

☐ 和兄弟姐妹，父母，亲戚

☐ 电脑，电视，书

☐ 其他 _____

21. 请估计您的孩子每天接触不同语言的百分比（每天不同活动的时间总计）？

他 / 她的第一语言	他 / 她的第二语言	其他语言
☐ 0%	☐ 0%	☐ 0%
☐ 25%	☐ 25%	☐ 25%
☐ 50%	☐ 50%	☐ 50%
☐ 75%	☐ 75%	☐ 75%
☐ 100%	☐ 100%	☐ 100%

22. 请选择符合您孩子语言水平的选项。

	非常好	很好	不太好	不好
您的孩子可以理解他 / 她的母语				
您的孩子可以理解他 / 她的第二语言				
您的孩子说他 / 她的母语说得				
您的孩子说他 / 她的第二语言说得				

23. 您认为您的孩子那种语言说得最好？

- ☐ 第一语言
- ☐ 第二语言
- ☐ 其他语言，它们是 _____

24. 您认为您的孩子更喜欢使用某一种语言吗？

- ☐ 是，它是 _____
- ☐ 否

25. 哪些叙事活动是你的孩子在家经常做的？

- ☐ 自己看书
- ☐ 和其他人一起看书
- ☐ 讲述在学校发生的事情
- ☐ 讲述在学校读到的故事
- ☐ 听歌唱歌
- ☐ 看电视，光盘，游戏，网络视频。
- ☐ 讲述他们看的电视，光盘，游戏，网络视频内容。
- ☐ 跟玩具玩儿角色扮演
- ☐ 和朋友/兄弟姐妹玩儿角色扮演

- ☐ 其他（请举例）：

26. 你的孩子有任何与叙事有关的学校作业吗（例如阅读，写作等）？

- ☐ 有，请举例

- ☐ 没有

27. 你的孩子用英语阅读吗？

- ☐ 是

- ☐ 否

28. 你的孩子用英语写作吗？

- ☐ 是

- ☐ 否

如果答案是“是”，你的孩子是从什么时候开始英语写作的？_____

—

29. 请选择符合过去一个月内，您的孩子用英语进行以下活动的情况。

	从来没有	一个月两次	一周一到两次	几乎每天
自己看书				
和别人看书				
讲述在学校发生的事情				
讲述在学校读到的故事				
听歌唱歌				
和兄弟姐妹玩儿角色扮演				
看电视，光盘，游戏，网络视频。				
讲述他们看的电视，光盘，游戏，网络视频内容。				
和玩具玩儿角色扮演				
写故事				
其他（请指出_____）				

30. 你的孩子用汉语阅读吗？

☐ 是

☐ 否

31. 你的孩子用汉语写作吗？

☐ 是

☐ 否

如果答案是“是”，你的孩子是从什么时候开始汉语写作的？_____

—

32. 请选择符合过去一个月内，您的孩子用汉语进行以下活动的情况。

	从来没有	一个月两次	一周一到两次	几乎每天
自己看书				
和别人看书				
讲述在学校发生的事情				
讲述在学校读到的故事				
听歌唱歌				
和兄弟姐妹玩儿角色扮演				
看电视，光盘，游戏，网络视频。				
讲述他们看的电视，光盘，游戏，网络视频内容。				
和玩具玩儿角色扮演				
写故事				
其他（请指出_____）				

Appendix C: Semi-structured Interview Questions

Semi-structured Interview with Teachers

1. Do you think narrative skills are important to students?
 - Do you think narrative skills have an impact on students' emotional learning/ability to express emotions? Are there activities at school for this?
 - Do you think narrative skills have an impact on students' social skills? Are there any activities in the school?
 - Do you think that narrative skills have an impact on students' moral sense? Are there activities at school?
 - Do you think that narrative skills have other impact on students' personal development? Are there any activities in the school?
 - Do you think there is a difference in narrative expression between boys and girls?
2. What is your strategy of helping to develop students' narrative production?
 - Do you have assessment at school about student's narrative ability?
3. Are you familiar with story grammar? Will you adapt story grammar in your teaching approach?
4. What narrative/literacy activities do you do with students in class? In what languages? Through speaking or writing?

If they are in Chinese, using Pinyin, Chinese Characters or both?
5. What storytelling activities have you observed that have been carried on among students?
6. What storytelling activities do your students regularly/frequently do with each other?
7. How do you describe your students' narrative ability?

中文问题 (Questions in Mandarin)

1. 你觉得叙事能力对于学生来说是很重要的吗？为什么？
 - 您认为叙事能力对学生的情感学习/表达情感的能力有影响吗？学校有相关的活动吗？
 - 您认为叙事能力对学生的社交能力有影响吗？学校有相关的活动吗？
 - 您认为叙事能力对学生的道德感有影响吗？学校有相关的活动吗？
 - 您认为叙事能力对学生的其他个人发展有影响吗？学校有相关的活动吗？
 - 你认为男生和女生在叙事表达上是否有不同呢？
2. 你在课堂上采取什么方法来帮助学生发展叙事能力？
 - 学校有对学生的叙述能力的评估吗？
3. 你听说过叙事语法吗？你的教学方法会结合叙事语法吗？
4. 你在课堂上组织了什么叙事活动或练习吗？以说为主还是以写为主？如果是用中文，是拼音还是汉字？
5. 你观察过学生之间都有什么叙事活动吗？
6. 你的学生常常一起做什么叙事活动？
7. 可以请你评价一下你学生的叙事能力吗？

Semi-structured Interview with Parents

1. How do you describe your child's storytelling ability?
2. Do you think storytelling skills are important to children?
 - Do you think narrative skills have an impact on children's emotional learning/ability to express emotions?
 - Do you think narrative skills have an impact on students' social skills?
 - Do you think that narrative skills have an impact on students' moral sense?
 - Do you think that narrative skills have other impact on students' personal development?
 - Do you think there is a difference in narrative expression between boys and girls?
3. What activities do you do at home of helping your child to develop storytelling skills? In what languages? If they are in Chinese, using *Pinyin*, Chinese Characters or both?
4. What storytelling activities do you know that have been carried on in school among children? In what languages? If they are in Chinese, using *Pinyin*, Chinese Characters or both?
5. Does your child share his/her thoughts with you a lot? Could you briefly describe what the settings are? How do you usually respond?
6. Does your child share his/her emotions with you a lot? Could you briefly describe what the settings are? How do you usually respond?
7. Does your child talk about what happened in school with you frequently?
 - Have they shared experience of helping someone in the school with you before? If so, how did you respond to it?

- Have they shared experience of having conflicts with someone in the school with you before? If so, how did you respond to it?

中文问题 (Questions in Mandarin)

1. 可以请您评价一下你孩子的叙事能力吗？
2. 您认为叙事能力对学生的情感学习/表达情感的能力有影响吗？学校有相关的活动吗？
 - 您认为叙事能力对孩子的社交能力有影响吗？
 - 您认为叙事能力对孩子的道德感有影响吗？
 - 您认为叙事能力对孩子的其他个人发展有影响吗？
 - 你认为男生和女生在叙事表达上是否有不同呢？
3. 你在家采取什么方法来帮助孩子发展叙事能力？使用什么语言？如果是用中文，是拼音还是汉字？
4. 你了解学校课堂上采取什么方法来帮助学生发展叙事能力吗？使用什么语言？如果是用中文，是拼音还是汉字？
5. 你的孩子常常和你分享他的想法吗？你能说说是在什么场景下吗？你是怎么回应的呢？
6. 你的孩子常常和你分享他的心情吗？你能说说是在什么场景下吗？你是怎么回应的呢？
7. 你的孩子常常和您说他在学校发生的事情吗？
 - 他们有分享过他们在学校帮助过别人的经历吗？如果有，你是怎么回应的呢？
 - 他们有分享过他们在学校与他人发生冲突的经历吗？如果有，你是怎么回应的呢？

Appendix D: Example of Interview Transcription

Keys for Jefferson style symbols used in the study

(.)	short pause
()	inaudible or unclear speech
(gestures)	additional descriptions for movements, laughter etc.
(information)	guess at unclear speech
_____	stressed syllable
[	overlapping talk
> <	the talk between the arrows is noticeably speeded up
< >	the talk between the arrows is noticeably slowed down
...	prolongation of the sound
=	no break within turns
↑	the sentence shifts into higher pitch
↓	the sentence shifts into lower pitch

Audio Interview Sample Transcript

Date: 05/03/2021

Interviewer: Mengqi Zhou

Interviewee: Teacher A

Duration: 33mins

Researcher: 那就是国内三年级，你觉得以你的经验三年级的学生，他的一个叙事表达的能力大概在什么水平呢？

5 Teacher A: 在什么水平？我觉得这个年龄段的孩子肯定是能说完整的话，而且这个完整的话应该能在 50 到 100 字左右。然后如果体现在作文当中，我觉得应该是不少于 200 字，就是能用完整的话把自己想要说的说清楚，叙述清楚是没有问题的，然后属于什么水平，我觉得对于小学生来说属于一个从低等，从那个低等到中等过渡的一个阶段。因为三年级是属于一个比较特殊的，然后他们现在就是学习语文这方面，他们这个阅读能力其实也是一个过渡。然后从之前的很简单，
10 到现在他们需要整体地去感知，就是是比较难的。所以对于他们来说是一个(.)嗯，特别难跨的一个坎吧，如果跨过去之后他们到高年级，他们整体的能力都会有所提升和进步。

Researcher: 那高年级就属于五六年级吗？就是这么分的吗：一二年级三四年级五六年级？

15 Teacher A: 对一二年级属于低段，然后三四年级属于中段，然后五六年就属于高段。然后您可以问我高年级的，因为我教过从二年级到六年级，但我没有教过一年级，剩下年级都带过啊。

Researcher: ↑太好了，那太好了。↓那就是三四年级跟二年级相比，会有什么不一样？就是，就是你们在上课呀，或者是在培养他们这个叙事能力
20 会有什么不一样吗？会采用不一样的方法？

Teacher A: (nods)会采用不一样的方法，就是之前二年级更多的是让他们读完这篇课文之后就是让他们去大概复述一下，那个讲了一件什么事儿，

- 25 然后只要能把事情说清楚就可以。然后他们可能说得比较啰嗦，然后其实就相当于把这篇课文背下来。但是到了三年级，我们开始让他们就是整体感知课文的内容，会让他们按照谁做了什么啊，怎么样这样的一个格式，或者是说找时间地点，人物起因经过结果就是用最简练的语言让他们去概括整篇课的内容，内容就是有一个从整体的一个复述，然后到现在一个用简单的语言去概括，然后就是整体感知的能力是比之前有所提升的。
- 30 Researcher: 对，那这块我就正好问你一下，就他这个是等于说从三年级开始是有意识地培养他们去感知课文，里头讲了什么内容，像你刚才说的时间地点，人物这些。那这个会体现一个他们写作文上吗？就是写作文也会要求他们按照这个框架去写吗？
- 35 Teacher A: 嗯，如果是写人记事类的，因为现在他们主要就是记事类的，其实写人没有就是记事类的会要求他们这样去写，嗯，就是一定要有时间地点人物，然后做了什么，然后让他们作文当中有体现。要不然嗯(.)就是你不通过文字表达出来，他们有时候光说可能落实得不是很到位，然后就是现在，作文上面也在培养这个能力，为高年级写人记事做铺垫。因为高年级的比较难，现在高年级要求，同时一篇作文要写两件事，普编版教材还是难度提高了的。
- 40 Researcher: 这个两件事儿是指先发生了什么，然后中间有个转折，又发生了什么？大概是这样吗？
- 45 Teacher A: 呃(.)不是。是这样的，就是比如说围绕“难忘”这件事，要写一个详细的一件事儿，然后有详有略，然后那个略写就是大概只有简单的时间地点人物，然后几句话把它叙述清楚。可以，但是那个详写就必须按照要求，就是像写一篇作文一样。时间地点起因经过结果都非常清楚，不太一样这个还是有一点。
- Researcher: 哇，就是我。我已经小学毕业很多年了(laughter)然后现在改成什么样根本就知道了。
- 50 Teacher A: 是新改的，之前也不太这样，就是这两年新改的教材是要求学生写两件事，但是还是其实挺难的。

Researcher: 那他们到了五六年级就开始会注重的培养这方面是吧？那等于说其实六年级的时候应该大部分学生能达到这个水平。

55 Teacher A: 嗯。大部分学生差不多应该是。对，但是略写会，但是他们到了高年级之后，反而对于这个略写其实掌握得不是很好，不知道他们就会把这件事两件事都叙述得很详细，然后，所以就有可能在作文当中导致丢分。然后我们之前教六年级的时候，也是就是他们详细写一件事，没有问题。但是现在反而略写变成一个特别大的问题了，

60 Researcher: 嗯，对就详细写的话就是，呃，细节肯定需要描述清楚，然后包括用词，对吧？

Teacher A: 对。

Researcher: 那从三年级开始呃(.)我不太清楚啊，这个如果我说错了呢，你可能得纠正我。就是从三年级开始会，学生开始接触更多的词吗？包括形容词啊这方面，然后他们会运用到他们的写作当中。

65 Teacher A: 嗯，会。就是我们现在课文当中，然后课后习题都会让他们积累，比如说，光彩夺目的春天，剪刀似的尾巴就是这种“的地得”形式的词语会让他们去积累，然后积累完之后，很多孩子就会运用在自己的作文当中，就是下意识地需要他们积累。然后有时候。我们在三年级就是写抄词本，就是每个词语抄两遍的最后，我们因为是一个过渡阶段，所以我们还从课文当中让他们摘抄两句，写得最好的句子，然后通过去抄一遍，然后去背一遍，然后这样加深印象，然后方便他们以后在作文当中积累。就是都是下意识地让他们练习吧，只能是这样说。但是可能对于好孩子来说，他们都运用，但是大部分一些基础本身比较弱的，可能可能还是不太会，但是到了高75 年级会比现在要提高很多。

Researcher: 明白了，明白。你刚才还提到就是三年级开始可能会在课堂上要求他们去感知课文里呃，就是怎么样这方面那这个怎么样，就是可能是人物或者是这个事件。那这个具体是指什么呢？

80 Teacher A: 谁做了什么怎么样，然后就是围绕着事情的结果来说，或者是围绕事情的经过来说，然后让他们把这个怎么样去说清楚哦，但基本上

都是结果，谁做了什么，结果怎么样，基本上都是这样去概括。就是这样，对于三年级的孩子来说更简单一些。刚才说的那个“时间地点人物起因经过结果”六要素，实际上是高年级更着重去培养的，但是我们现在就是会把这些概念去给他，然后去一步步教他们啊，是这样。

85

Researcher: 那这个结果更像是这个，比如说他做一件事情，成功没有成功这种。对吧或者是他做一件事情？嗯对最后的结果是什么。那会注重，要求他们感知比如说人物，课文里人物的想法心情这方面吗？

90

Teacher A: 我会让他们去感悟心情就是添加语，就比如说他做了一段话，然后你来说，他说这句话的时候是什么样的心情，然后可能孩子会说会加一些提示语的词，比如说开心的激动的，然后，自豪的骄傲的这样的词，然后让他们去填，然后让他们去读，然后让他们去感悟。

Researcher: 那他们在写作文或者是在表达上你觉得他们说的多吗？就关于自己的想法还有心情这方面。

95

Teacher A: 表达上其实说的不是很多，其实他们现在写作文，我们三年级上学期第一单元只是让他们学写一段简单的话，就是人物自画像，只要写出人物的外貌，然后外貌特点，然后简单地说一件事情就好。就是因为之前只是看图写一小段话，然后现在是要求他写成一篇作文，有了一个过渡，然后我们下学期就着重再培养他们第一自然段写时间地点人物，然后剩下几个自然段就着在描述整个事件的这个从开始到最终发生的这个结果。有这样一个过渡。

100

Researcher: 所以可能现在就是这一年的要求就是他们按照呢，你们给的要求可以描述清楚就可以了，对吧？

105

Teacher A: (.)让他们描述得清楚，我们会让他们用上，人，就是比如说前段时间刚写了放风筝，让他们写的，比如说加上人物的动作，然后还可以去想一想他们当时去想什么，就是心理描写。同时还让他们去写两个人物之间的对话，就是语言动作神态。这样我们也会让他们去写。然后通过给范文的方式吧，然后或者是在讲课的时候着重去分析。然后让他们先想，比如说我们双方都会用到哪些动作呀，他们

110 就会找出很多动作，比如说举起来呀、往上抛呀、跑起来呀这些词，
然后让他们去积累，然后最后发现孩子们会用在写作当中，然后对
话，也其实没有什么太大的问题，还好。

Researcher: 就是他们都可以写出来，对吧？可以想象出来发挥自己的想象力来
[写。

115 Teacher A: [对，还可以没，没什么太大的问题。

Researcher: 那那除了我们刚才说的这些就是你们还有别的培养他们叙事能力的
活动吗？在学校里？在课堂上？

Teacher A: 叙事能力对吧？

Researcher: 对，就是除了写作文呀。除了我们上语文课，分析文章啊学习呀，
120 就是还有一些别的活动，你觉得可以帮助他们，就是发展这个叙事
能力。

Teacher A: 嗯，就是我们每册书会有一个配套的快乐读书吧，就是会给孩子们
根据这一单元学习的内容推荐一系列的书。比如这个单元我们这学期
我们学过的童话寓言故事，然后就后来给他们推荐了克雷洛夫寓
125 言、伊索寓言，还有中国古代寓言。然后我们平时也会让孩子们去
推荐一些比较好的书。但是都是选做的作业，自主阅读哪本书，然
后选择其中的一个故事，会让你感触特别深的地儿，会让他们去完成
读书记录卡。上边有四字词语的积累，有好词好句的就是摘录的，
那种优秀的句子，然后最后还让他们最后会写一下自己的感受。就
130 是可能写的感受不是很长，但是也是想通过这种方式让孩子们去读
书，然后在读书过程当中有所收获，我觉得也算是在培养他们这方
面的能力吧。就是很多孩子都会很愿意去完成，因为他们有自己喜欢
的书，然后有时间就是他们可以去进行分享。

Researcher: 对，那就对于孩子的读书量就是三年级有的要求吗？还是这个完全
135 看孩子自己还有家长？

Teacher A: 嗯，读书量是要求他们肯定是在完成学校阅读任务的前提下，就是
去推荐一些书，然后主要还是看孩子和家长，因为他们现在课外班
实在是太多了然后要求我们现在是必须要他们在学校把作业写完，

140 所以很对时候我们回家是没有作业的。因为最近的才下的政策嘛，
所以，还还不太一样了。

Researcher: 所以这个更多的是看孩子，还有家长的安排，对吧？或者是看孩子自己喜欢，不喜欢读书。

Teacher A: 主要还是看，因为现在不太敢给他们去强加一些，所以我们五一留了去阅读中国古代历史故事，但是我们把它设成了选做的作业。嗯，
145 就是孩子自己喜欢就去完成。如果说他实在没有时间想放松休息一下的话，可以不写，是这样的。

Researcher: 嗯，那，那就是在你看来这个孩子阅读量的大小和它的这个叙事表达能力有关联吗？

Teacher A: 嗯(.)有一定关联，而且我觉的关联还比较大，因为很多孩子读书量特别大的话，然后他的词语积累一样，包括他对整个内容故事的这个体悟和感受会比其他人要深，然后他的想法也会更多一些，就在写作当中有很大的一个体现。但是我觉得三四年级孩子体现的不是很明显，因为他们现在还是一个开始学习写作文吧。所以大概只能是先把一个大概的轮廓写出来，但是具体的里边的内容其实可能不是那么详细或生动。然后就是到了高年级，然后(.)或者平时的课文，
155 课上的讲解，然后我们一些给孩子们的一些积累，会让他们慢慢在成长这方面进行加深。但是三年级主要还是能把作文写出来，然后按照上面的要求，比如说要求你写时间地点，要求你写人物的动作，他们其实只要能写出来就可以了，没有太大的要求。高年级的话。

160 我之前(.)有之前教过的孩子就是他的阅读量特别多，然后他在写作当中，然后他对人物的描述，然后对整个事件的描述，就能感觉出来比其他孩子要强很多，所以其实阅读量对他们写作的能力水平其实是有很大的帮助的。但是有的孩子呢，他其实读了很多书。但是你能感受到他的语文学习能力并不是很强，因为它只有一个单纯的输入过程，他可能只是读完这个故事，或者是读完那个情节，他没有过多的思考过自己的体会，所以他就是读了很多书，但是阅读能力
165 包括习作能力，就是你并不能看的出来，所以这个时候可能是需要

170 一个输出的过程。然后可能随时去写个日记呀，然后去写个观后感呀，然后去和朋友家长交流一下自己读后的感受。呀，就是如果没有这样这样一个过程，我觉的有的孩子，他只是光，只是去读这本书读这个故事。就是相当于去完成任务，其实反而对他的阅读能力提高不是很大，嗯，这个也看孩子我觉得。

Researcher: 嗯。那你觉得这个男生和女生在这个叙事表达上有不一样吗？

175 Teacher A: 男生和女生，女生更细腻一些，然后，但是有的男生写作文还好，整体来说就是女生写的作文可能会更细致，然后会更生动一些。然后男生跟女生比，可能就会稍弱一些。只能说是大部分孩子。如果个别有的男生，他的其实写作能力会也很强，但是是少数。

Researcher: 明白了明白了。那你觉得就是学生的这种叙事表达能力，对他的社交能力有影响吗？

180 Teacher A: 对他的社交能力，那肯定是有影响的。就是他在跟其他孩子去沟通的时候，他要想参与，尽快融入到其中的话，最起码能把自己想说的表述清楚，然后别人才会关注了她说了什么，然后才会去认真听，然后才会慢慢的让他也融入到他们谈的话题当中去。如果他连自己想表述的说不清楚的话，就没有办法融入进去，所以我觉得关系还是比较大。

Researcher: 嗯嗯嗯，那就是在学校里会有什么活动可以帮助他们。就是不单是提到这种叙事表达能力，也帮助他们就是提高他们的社交能力。

190 Teacher A: 社交能力。那种特别刻意的好像没有（laughter）特别特别的。我倒是觉得没有。他们课间的一些交流，然后他们去聊自己喜欢的玩具去聊自己喜欢的动画片，聊自己喜欢的内容。嗯，也是一种锻炼吧。然后偶尔我们会组织一些主题活动，呃，比如说语文方面，我们可能会要他们课前有一个几分钟的一个交流和沟通。嗯，然后让他们对自己感兴趣的内容进行分享。然后其他同学也会以此来提出自己的一些看法和想法或者建议。嗯，也是一种社交能力的锻炼吧，就是一人两个人之间的一种对话。但是这种活动还是比较少，因为说实话就是在国内他们有这种语言环境。他们可以随时去说自己想说

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的都觉着倒不用刻意去培养。

Researcher: 嗯，就他们自然就发展了是吧，就这种能力。

Teacher A: 嗯，对天生的吧 (laughter)

200 Researcher: (laughter) 好，那你觉得就是他这种叙事表达的能力。对学生的这种情感的表达情感或者是表达想法的能力有影响吗？

Teacher A: 对，他们情感，也也会有影响吧。就是他们在读完一本书写读后感，或者是在对一件事情发表看法的时候，他们要想把自己的这种情绪情感表达出来，他们可能就会用更合适更恰当的词语，然后这些词语可能也源于他们日常的一个积累。然后平常的一个表达。所以我
205 觉得还是有一点关系的，他们要先说出来啊。

Researcher: 那你觉得学校我又来这个问题了就是学校，呃，有相关的活动吗？就是对于他们情感表达这方面能力的培养。

Teacher A: 情感表达方面的培养，我们现在最近，这半个月在做的 (laughter)
210 也不能叫情感上吗，就是因为今年是建党 100 年，所以我们就会组织很多什么红心向党呀这样的一些主题活动，比如说朗诵呀演讲呀写征文的形式。然后，也会组织这样的活动，比如讲故事比赛。然后倒这些都是北京市或者区里组织的，然后学校后期也会开展一些的活动。那具体的还没有下来，就是这些活动就是也是在培养吧。

215 Researcher: 这都是在锻炼他们这方面的能力，是吧？对，都是在锻炼，

Teacher A: 但是就是能参与到这些活动呢，是班里的少部分人，因为毕竟有有的择优嘛。嗯，然后参加北京市的，可能班里只能有那么几个同学代表班级参加。然后学校的活动可能会大部分都是参加到，但还是也看孩子们喜不喜欢，愿不愿意，如果他会喜欢，会特别投入。如果
220 他不是特别喜欢的话，可能他的参与度也不是很高。

Researcher: 嗯嗯(.)那就是像类似于这种什么建党啊，什么这种相关的主题吧，就是会有或者这种事情发生的时候，一般学校都会组织相关的活动吗？就是在语文啊这方面，会让他们写一些东西，或者是带他们(.)学习一些[东西？

225 Teacher A: [会，比如说我们在五一之前然后因为劳动节嘛，然后每个班选择了

230 一个劳动模范，然后会让孩子们自行去准备，就是班里一两个自愿的孩子去准备介绍关于这个人物的一些事迹，然后他的生平，然后其他同学会以写信的方式。然后就是表达对他们的那种致敬，然后对它们的内容赞扬。也会有我们假期作业当中也有，就是见字如面，就是通过一个故事一个人物，然后让他们去写自己读后的感受，给这个人写，然后抒发自己的情感。我们语文方面会有这样的一些活动。

235 Researcher: 嗯，那刚才提到这个活动正好下一个问题就是(.)你觉得这个叙事能力对学生的，包括这些相关的活动呢，对学生的这种道德感的养成有影响吗？

240 Teacher A: 有影响，就是我觉得最近，就是因为孩子们毕竟是对之前的一段历史了解的，不是很清楚，嗯，然后他的那种感情也不是很深，所以就是这两年也一直是在对孩子进行这种培养，然后去让他们认识一些英雄人物，然后在课文当中也会融入进去，然后或者是主组织一些主题活动，比如说南京大屠杀的活动，然后献花篮的活动等等，就是几乎我们每个月都要有一到两次这样的主题活动，然后来对他们的这个人生观到世界观，就是让他对他们产生一定影响。因为觉得他们还是需要去了解这些历史，然后。肩负起国家的责任吧，我觉得这方面还是有帮助作用的。但是孩子有一些小，吸收的不是那么多。但是我觉得这样一直做下去应该是会有一个很好的效果的。

245 Researcher: 明白了，嗯(.)那其实就是通过对于一些比如说道德模范呀，或者是一些历史人物的学习或者历史事件的学习，然后来慢慢的帮他们形成相关的这个人生观价值观。

250 Teacher A: 是，对。他们不然接触得太少了，然后现在整个我觉得社会又比较浮躁，然后家长们实际上对这方面其实不是很重视。然后然后对人生理想的培养等这一些，其实我觉得好像都不是很多，所以现在学校就是对于孩子人生观这种三观的培养，这个是一个主阵地。如果课语文课上再不去教，然后我们在班会活动或主题活动再不去教，再不去提倡觉得，我觉得会会很危险。孩子们现在问他们，你以后

255 想做什么？我想做游戏主播。为什么？因为他能挣好多钱又轻松。

Researcher: ↑ 哇，他们这么点儿就已经这么想了么？

Teacher A: 对呀，我以后想做演员，然后而不会说我以后要想要去做科学家，
然后想怎么这样的孩子其实是越来越少的，就是如果只想挣钱，就
是越多越好。有的孩子还真的是这样想的。因为之前问过，你有什么
260 理想？你以后想干嘛？嗯，我想以后挣很多很多钱，就是。是这样的孩子就是慢慢可能会随着社会的影响越来越多。但是这种人毕竟是少数，如果大家都是为了去靠挣钱，然后国家这些事没有去做的话，因为他们肯定连钱也做不到。

Researcher: 对对对，所以，嗯，这方面引导还是很重要。

265 Teacher A: ↑ 嗯，对，嗯，对，

Researcher: 那就刚才其实也是说了一些对这些叙事啊，包括这些学校的活动，
对孩子以后的个人的发展对吧？那你觉得对他的其他方面的个人发展
还有影响。

Teacher A: 就是这个叙事能力。刚才提到了社交，嗯，提到了情感，提到了价
270 值观，对。写作能力也提到了嗯，我觉得你想得好全，我觉得你说的
这个其实基本上都提到了这些能力，我觉着，我暂时想不到其他，
因为你想的还是挺多，挺远的（laughter）。

Researcher: （laughter）对，我就基本上设计了一些我大概能想到的问题。对，
哎，那国内是不是还有就是思想品德课？

275 Teacher A: 我们现在叫道德与法治，就是带像咱们小时候的基础上会让他们去
学更多的法律知识。比如说关于宪法呀这些，他们现在都在教，就跟
之前不太一样了。

Researcher: 对呀，这这这小学就开始接触也是好事儿，我觉得也是好事。

Teacher A: 我，我偶尔会听，还有学全国人大，然后学习宪法，然后这些一些基
280 本的法律知识，他现在都在学，对就不光是这个。就是不光是这种
道德三观上的一种培养了，就是我觉得他培养的面试越来越广的，
然后孩子们从小对很多事都有一些了解，

Researcher: 那还是挺好的。我记得那会儿小的时候就思想品德好像就是读读书

啊什么的，好像就这些。

285 Teacher A: 对就当你做个爱劳动的人，然后懂得尊重别人，这些都是最基本的了然后，现在他们讲的东西还挺深的。

Researcher: 噢，那这些是不是就是都低年级完成的了，就什么爱劳动啊，什么好人好事啊这些。

Teacher A: 呃(.)一二年级会更多一些吧。然后高年级，他们讲的就会越来越深，
290 但我听得道法课比较少，但是现在道法课已经成了一个特别重要的，都是因为我们有的时候语文老师会去兼职做道法老师，可能老师不太够。然后就会要求我们首先去做一些问卷，然后还要保证我们这个思想政治觉悟比较高(laughter)。然后也去做一些调查，然后让再给他们去上课。就是现在国家把这个道法课题提到提高到一个很高的一个地位了。还会有抽测之类的，就是一个检测，看看孩子们掌握的情况怎么样

Researcher: 哦，那是老师工作量也挺大的。我觉得现在。不像以前是这样，你看就是就是我觉得像以前可能思想品德课，老师就拿一本书，然后翻开，对吧？然后我们一起来看。

300 Teacher A: 现在他们(.)因为他们现在做口复杂了，因为之前就是这学期还上过几次课，都是当道法老师把 PPT 做好，然后我们就会去给他们讲垃圾分类，然后就给他普及了很多知识。这节课其实还挺充实的。

Researcher: 那可能对学生来说也是蛮好的，因为他们每节课都有比较新的内容，对吧？每节课的话题都是新鲜的。

305 Teacher A: ↑ 对对对，其实道法课现在真的，我觉得它的作用现在不亚于语文啊，对对，真的很重要。

Researcher: 那学生在这种课堂上也会有产出吗？也会有输出吗？就是在语言方面。

Teacher A: 有，然后他们就是会涉及一些小的活动然后让他们去做，做完之后会根据相关内容，然后再去写在自己的书上。现在道法课上，他们会要求检查作业，就是老师那个讲啦，然后你要根据这个活动，现在把你想到的其他写在书上，然后他们就会去写。然后也会去进行

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315 小组的交流和分享，然后每节课就是开课之前会有几分钟时间让他们做“社会新闻大讲堂”。就是他们把最近特别热门的新闻，然后跟其他孩子进分享。就是课前演讲，其实就是我们现在这种不管是语文课吧，其实很多课这种课前演讲都很多。就是跟这堂课有关系的，然后相关的人呢，他们都会去分享。所以孩子其实现在他们的这个语言表达能力其实还是蛮强的，因为从一年级然后，反正我们学校有那个小组合作，然后他们会每人有自己固定的任务，然后针对一个问题，然后他们会进行全面的分享。你说完我说，最后他说，然后大家进行补充。然后，这个小组最后还要进行总结，就是从低年级我们就开始培养这种能力。所以他们到高年级之后，其实我们上课很简单，就是因为孩子们已经在这种过程当中，学会怎样去分析课文，怎样去分析内容，这样和其他同学交流就是，所以有的孩子会成长的特别快。但是，对于一些能力稍微弱的孩子，就是可能还是会弱一些，但是多多少少这些能力都会有所培养，因为要求每个人都要发言，而且是必须是完整的话。

Researcher: 那老师可能在纠正语言呀。语言表达这方面可能在低年级纠正的比较多，对吧？到了三四年级或者更高年级会越来越少了。

330 Teacher A: 呃(.)语言的纠正指的是什么？

Researcher: 嗯，比如说他用词方面呀或者是他这句话，应该不存在，他这句话没有说明白呀，或者是什么的这种情况。

Teacher A: 低年级会多一些，但高年级明显就这种比较少，他基本都能说清楚。嗯，就是只是看说得生不生动了。说清楚，但是说得生动，可能只是一部分同学。然后有一少部分一部分同学可能做不到，但是说清楚是没问题的。

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Researcher: 嗯，那咱们这个生动的标准是？

Teacher A: 生动的标准就是可以在说一段话的时候去用上一些修饰的词，比如说形容词。然后一些词组，然后一些修辞手法，比如说比喻啊、排比呀、拟人呀。然后再写叙述这个人物的一些行为的时候，去叙述他的语言说他的动作，然后说他的神态。这是我们语文方面对这个

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生动的理解，但我不太清楚这个到底定位准不准（laughter），因为我是一直这样去教孩子。嗯，是不光是说清楚，还要把你想要表达的，然后，说的更细致生动一些，就是通过这些，我个人的理解。

Appendix E: Participation Information Leaflets and Consent Forms

TRINITY COLLEGE DUBLIN SCHOOL OF LINGUISTIC SPEECH AND COMMUNICATION SCIENCES

Participant Information Leaflet

Monolingual and Bilingual Narrative Production and Comprehension across Cultures

Student researcher: Ms Mengqi Zhou, PhD candidate in Applied Linguistics, School of Linguistic, Speech and Communication Sciences

Supervisor: Dr. Gessica De Angelis, School of Linguistic, Speech and Communication Sciences

You are invited to participate in this research project which is being carried out by Mengqi Zhou, a PhD student in Applied Linguistics at Trinity College Dublin. Your participation is voluntary. Even if you agree to participate now, you can withdraw at any time without any consequences.

The study is designed to investigate the narrative production and comprehension of English-Mandarin bilingual children, and monolingual Mandarin-speaking children across cultures, specifically focussed on Ireland and China. This information gives parents an idea of what the project involves. You can also contact the researchers directly with questions – our details are at the bottom of the form.

If you agree to participate, this will involve you in filling in a questionnaire with regards to the language backgrounds of your child, your family and literacy activities at home (e.g. storytelling, reading, role-play etc.). The questionnaire will be sent to you by email or by post and should take you about 15 minutes to fill in. No sensitive questions will be asked in the questionnaire, and I will explain the research purpose again at the start of the project.

While you may not benefit directly from participating in this research.

Any information or data which we obtain from you during this research which can be identified with you will be treated confidentially. We will anonymise the data by allocation of a code number. Only the researcher will have access to the key which links code numbers to individual identities.

Data from this research project may be published in future. The original data and all copies will be available only to the present investigator, Mengqi Zhou, and the supervisor, Dr. Gessica De Angelis. The digital data that are collected in Ireland and in China will be stored on a password-protected USB belonging to the present researcher. All the digital data will be stored in the same folder, and the folder including all the files in it will be encrypted using software AxCrypt. The researcher will have sole access to the key that links to the decryption of the folder. For the data that are collected in China, the encrypted data that stored in the same password-protected USB will be carried by the researcher to Ireland after the data collection is finished. During and after the transcription and analysis process, the USB with all the data will be safely housed in a locked office (Arts Building, room 4064) when the researcher is not present.

I will be pleased to answer any questions you may have about this research at +353 0873998167 (Irish), email: zhoum@tcd.ie. You are also free, however, to contact my supervisor, Dr. Gessica De Angelis (gessica.deangelis@tcd.ie).

项目信息说明书——父母

圣三一大学

语言与传播学院

项目信息说明书

单双语儿童叙事产出和理解的跨文化研究

学生研究者：周梦琪，语言与传播学院，应用语言学系，博士在读

导师：Gessica De Angelis 博士，语言与传播学院

您受邀参加由周梦琪（应用语言学系，博士在读）实施的研究项目。您的参与完全是自愿的。即使您同意参与，如有需要，您可在任意时间退出此项目，并无需承担任何后果。

此项研究旨在研究不同社会文化和语言环境（中国、爱尔兰）下，汉语单语、中英双语儿童的叙事产出和理解。此项目书为意向参与此项活动的儿童，父母及学校老师提供详细的项目信息。如有任何疑问，欢迎联系此项目的研究者。联系方式可在页面下方找到。

如果您同意参与此项研究，将会需要您完成一份关于您孩子和家庭语言背景、家庭阅读活动的问卷（阅读活动例如：讲故事，看书，写故事等等）。问卷将会以纸质或电子版的形式发送给您，预计需要 15 分钟左右，请放心，此问卷不涉及任何与您隐私有关的问题。我也会在项目开始的时候就项目进行详细介绍。

此研究旨在进一步了解儿童在 9 岁这个阶段汉语、英语及双语的叙事能力的发展。您将不会直接受益于此次研究。

此研究中任何与您有关的数据将会进行保密处理。我们将会用数字编辑信息以达到匿名的作用。只有此项目的研究者能够接触这些信息编码。

此项研究收集到的数据在未来可能会进行发表。原始数据及所有形式的副本只供此项目的研究者使用。在中国期间，原始数据将会安全地保存在研究者的 U 盘中，进行加密，此 U 盘受到密码保护。数据收集结束后，此 U 盘将被研究者带回爱尔兰，进行转写和分析。数据转写分析期间以及完成后，此 U 盘将被安全地保存在学校的办公室（艺术楼，4064 办公室）中。

作为此项目的研究者，我十分愿意回答您的任何问题，我的联系方式是+353 0873998167（爱尔兰号码），+86 13718010761（中国号码），电子邮件：zhoum@tcd.ie。您也可以联系我的导师，Gessica De Angelis 博士 (gessica.deangelis@tcd.ie)。

TRINITY COLLEGE DUBLIN
SCHOOL OF LINGUISTIC SPEECH AND COMMUNICATION
SCIENCES
Consent Form

Monolingual and Bilingual Narrative Production and Comprehension
across Cultures

Student researcher: Ms. Mengqi Zhou, PhD candidate in Applied Linguistics, School of Linguistic, Speech and Communication Sciences

Supervisor: Dr. Gessica De Angelis, School of Linguistic, Speech and Communication Sciences

I am invited to participate in this research project which is being carried out by Mengqi Zhou. My participation is voluntary. Even if I agree to participate now, I can withdraw at any time without any consequences.

The study is designed to investigate the narrative production and comprehension of English-Mandarin bilingual children, and monolingual Mandarin-speaking children across cultures, specifically focussed on Ireland and China.

If I agree to participate, this will involve me in filling in a questionnaire with regards to the language background of my child/family and our literacy activities at home (e.g. storytelling, reading, role-play etc.). The questionnaire will be sent to me by email or by post and should take me about 30 minutes to fill in. No sensitive questions will be asked in the questionnaire.

I will not benefit directly from participating in this research.

Any information or data which is obtained from me during this research which can be identified with me will be treated confidentially. This will be done by the allocation of a code number. Only the researcher will have access to the key which links code numbers to individual identities.

The original data and all copies will be available only to the present investigator, Mengqi Zhou, and the supervisor, Dr. Gessica De Angelis. The digital data that are collected in Ireland and in China will be stored on a password-protected USB belonging

to the present researcher. All the digital data will be stored in the same folder, and the folder including all the files in it will be encrypted using software AxCrypt. The researcher will have sole access to the key that links to the decryption of the folder. For the data that are collected in China, the encrypted data that stored in the same password-protected USB will be carried by the researcher to Ireland after the data collection is finished. During and after the transcription and analysis process, the USB with all the data will be safely housed in a locked office (Arts Building, room 4064) when the researcher is not present.

If I have any questions about this research, I can ask Mengqi Zhou, +353 0873998167 (Irish), +86 13718010761 (Chinese), email: zhoum@tcd.ie. I am also free, however, to contact the research supervisor, Dr. Gessica De Angelis (gessica.deangelis@tcd.ie).

Signature of research participant

I understand what is involved in this research and I agree to participate in the study.
[I have been given a copy of the Participant Information Leaflet and a copy of this consent form to keep.]

Signature of participant

Date

Signature of researcher

I believe the participant is giving informed consent to participate in this study.

Signature of researcher

Date

父母项目知情同意书

圣三一大学

语言与传播学院

项目知情同意书

单双语儿童叙事产出和理解的跨文化研究

学生研究者：周梦琪，语言与传播学院，应用语言学系，博士在读

导师：Gessica De Angelis 博士，语言与传播学院

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此项研究旨在研究不同社会文化和语言环境（中国、爱尔兰）下，汉语单语、中英双语儿童的叙事产出和理解。

如果我同意参与此项研究，将会需要我回答关于我家庭阅读和叙事活动的问卷调查（阅读活动例如：讲故事，看书，写故事等等）。此问卷将会以邮寄或电子的形式发给我。我知道，此问卷调查不涉及任何与您隐私有关的问题。

此研究旨在进一步了解儿童在 9 岁这个阶段汉语、英语及双语的叙事能力的发展。我将不会直接受益于此次研究。

此研究中任何与我有关的数据将会进行保密处理。研究者将会用数字编辑信息以达到匿名的作用。只有此项目的研究者能够接触这些信息编码。

我知道此项研究收集到的数据在未来可能会进行发表。原始数据及所有形式的副本讲只供此项目的研究者使用。原始数据将会被整理在同一个文件夹，保存在研究者受密码保护的 U 盘中。所有数据将会使用 AxCrypt 软件进行加密。在中国期间，原始数据将会安全地保存在研究者的同一 U 盘中，进行加密。数据收集结束后，此 U 盘将被研究者带回爱尔兰，进行转写和分析。数据转写分析期间以及完成后，此 U 盘将被安全地保存在学校的办公室（艺术楼，4064 办公室）中。

如果我有任何的问题，我可以联系项目的研究者，周梦琪，联系方式是+353 0873998167 （爱尔兰号码）， +86 13718010761（中国号码）， 电子邮件：

zhoum@tcd.ie. 您也可以联系我的导师, Gessica De Angelis 博士
(gessica.deangelis@tcd.ie).

参与者签字

我了解此项目的内容并同意参与此项目(另外,我已经收到了另一份项目知情同意书)。

参与者签字

日期

研究者签字

我相信参与者收到了项目知情同意书。

研究者签字

日期

TRINITY COLLEGE DUBLIN
SCHOOL OF LINGUISTIC SPEECH AND COMMUNICATION
SCIENCES

Participant Information Leaflet

Monolingual and Bilingual Narrative Production and Comprehension
across Cultures

Student researcher: Ms. Mengqi Zhou, PhD candidate in Applied Linguistics, School of Linguistic, Speech and Communication Sciences

Supervisor: Dr. Gessica De Angelis, School of Linguistic, Speech and Communication Sciences

Your child is invited to participate in this research project, which is being carried out by Mengqi Zhou, a PhD student in Applied Linguistics at Trinity College Dublin. Your children's participation is voluntary. Even if you and your children agree to participate now, you can withdraw at any time without any consequences.

The study is designed to investigate the narrative production and comprehension of English-Mandarin bilingual children, and monolingual Mandarin-speaking children across cultures, specifically focussed on Ireland and China. This information gives children, parents and schools an idea of what the project involves. You can also contact the researchers directly with questions – our details are at the bottom of the form.

If you and your children agree to participate, this will involve them in telling two fictional stories in English after being presented with colour pictures and answering ten questions based on their understanding of the pictures. The storytelling process will take place via the online cloud meeting platform *Zoom* and their stories will only be audio recorded. It will take around 10 minutes. I am Garda vetted. However, if you are willing to, you could be presence in the data collection process. All the questions that will be asked are related to the content of the pictures. In addition, I will explain the

research purpose and storytelling process again to the children at the start of the process.

The children will not benefit directly from participating in this research. However, if you and your child are interested, he/she can receive 15 minutes of free online Mandarin language lesson. This benefit is not mandatory, and your child have the right to only participate in the storytelling tasks but decline the free class.

Any information or data we obtain from the children during this research that can be identified with them will be treated confidentially. We will anonymise the data by using numbers to code each child and family's name.

The recording can be provided by requesting, when you will have the right to request the deletion of any parts you feel might reveal your children's identities. Portions of the recording may be played in linguistics classes or during conference presentations, or written transcriptions may be made for teaching purposes or for linguistic analysis. Data from this research project may also be published in future. The original recording and all copies will be available only to the present investigator, Mengqi Zhou and the supervisor, Dr. Gessica De Angelis. The digital data that are collected in Ireland and in China will be stored on a password-protected USB belonging to the present researcher. All the digital data will be stored in the same folder, and the folder including all the files in it will be encrypted using software AxCrypt. The researcher will have sole access to the key that links to the decryption of the folder. For the data that are collected in China, the encrypted data that stored in the same password-protected USB will be carried by the researcher to Ireland after the data collection is finished. During and after the transcription and analysis process, the USB with all the data will be safely housed in a locked office (Arts Building, room 4064) when the researcher is not present.

I will be pleased to answer any questions you may have about this research, contact number: +353 0873998167 (Irish), email: zhoum@tcd.ie. You are also free, however, to contact my supervisor, Dr. Gessica De Angelis (gessica.deangelis@tcd.ie).

项目信息说明书——父母代表儿童

圣三一大学

语言与传播学院

项目信息说明书

单双语儿童叙事产出和理解的跨文化研究

学生研究者：周梦琪，语言与传播学院，应用语言学系，博士在读

导师：Gessica De Angelis 博士，语言与传播学院

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如果您同意参与此项研究，将会需要您的孩子看图讲述两个虚构的故事、回答十个关于故事内容的问题。此项活动将会在校的教室进行，或网上通过通过 Zoom 云会议平台进行，全程仅录音。我已具备由北京市派出所和都柏林派出所开具的无犯罪记录证明，但如您愿意，可于学校观察数据收集的过程。因此活动不涉及任何与您孩子隐私有关的问题。我也会在项目开始的时候就项目内容进行详细介绍。

此研究旨在进一步了解儿童在 9 岁这个阶段汉语、英语及双语的叙事能力的发展。您的孩子将不会直接受益于此次研究。但是如果您和孩子感兴趣，可免费参与一堂 15 分钟的汉语语言课程。此课程非必须参加，如果您不感兴趣，可仅参与讲故事的环节。

此研究中任何与您孩子有关的数据将会进行保密处理。我们将会用数字编辑信息以达到匿名的作用。只有此项目的研究者能够接触这些信息编码。

如您需要，此录音可与您分享，您有权要求删除任何您认为有可能造成您孩子个人身份泄露的部分。部分录音可能会在语言教室或者学术会议上进行展示，录音转写将会被用于教学或者语言学研究。此项研究收集到的数据在未来可能会进行发表。原始数据及所有形式的副本讲只供此项目的研究者使用。在中国期间，原始数据将会安全地保存在研究者的 U 盘中，进行加密，此 U 盘受到密码保护。数据收集结束后，此 U 盘将被研究者带回爱尔兰，进行转写和分析。数据转写分析期间以及完成后，此 U 盘将被安全地保存在学校的办公室（艺术楼，4064 办公室）中。

作为此项目的研究者，我十分愿意回答您的任何问题，我的联系方式是+353 0873998167 （爱尔兰号码），+86 13718010761 （中国号码），电子邮件：zhoum@tcd.ie。您也可以联系我的导师，Gessica De Angelis 博士 (gessica.deangelis@tcd.ie)。

TRINITY COLLEGE DUBLIN
SCHOOL OF LINGUISTIC SPEECH AND COMMUNICATION
SCIENCES

Consent Form

Monolingual and Bilingual Narrative Production and Comprehension
across Cultures

Student researcher: Ms. Mengqi Zhou, PhD candidate in Applied Linguistics, School of Linguistic, Speech and Communication Sciences

Supervisor: Dr. Gessica De Angelis, School of Linguistic, Speech and Communication Sciences

My child is invited to participate in this research project which is being carried out by Mengqi Zhou. His /her participation is voluntary. Even if my child and I agree to participate now, we can withdraw at any time without any consequences of any kind.

The study is designed to investigate the narrative production and comprehension of English-Mandarin bilingual children, and monolingual Mandarin-speaking children across cultures, specifically focussed on Ireland and China.

If my child and I agree to participate, this will involve my child in filling in a) telling two fictional stories in English after being presented with colour pictures and answering ten questions based on their understanding of the pictures; and b) telling one personal story based on their own experience of the topic. The storytelling process will take place in their school in their classroom, or via the online cloud meeting platform *Zoom* and their stories will only be audio recorded. The researcher is Garda vetted. However, if I am willing to, I could be presence in the data collection process. All the questions that will be asked are related to the content of the pictures. The whole process will take about 30 minutes.

The child will not benefit directly from participating in this research. However, if my child and I are interested, he/she can receive 15 minutes of free online Mandarin language class. I understand this benefit is not mandatory and my child have the right to only participate in the storytelling tasks but decline the free class.

I am free to ask for having a copy of the recording, when I will have the right to request the deletion of any parts I feel might reveal my children's identities. Any information or data which is obtained from the child during this research which can be identified with him/her will be treated confidentially. This will be done by allocation of a code number. Only the researcher should have access to the key which links code numbers to individual identities.

The original data and all copies will be available only to the present investigator, Mengqi Zhou and the supervisor, Dr. Gessica De Angelis. The digital data that are collected in Ireland and in China will be stored on a password-protected USB belonging to the present researcher. All the digital data will be stored in the same folder, and the folder including all the files in it will be encrypted using software AxCrypt. The researcher will have sole access to the key that links to the decryption of the folder. For the data that are collected in China, the encrypted data that stored in the same password-protected USB will be carried by the researcher to Ireland after the data collection is finished. During and after the transcription and analysis process, the USB with all the data will be safely housed in a locked office (Arts Building, room 4064) when the researcher is not present.

If I have any questions about this research, I can ask Mengqi Zhou, +353 0873998167 (Irish), +86 13718010761 (Chinese), email: zhoum@tcd.ie. I am also free, however, to contact the research supervisor, Dr. Gessica De Angelis (gessica.deangelis@tcd.ie).

Signature of research participant

I understand what is involved in this research and I agree to participate in the study.
[I have been given a copy of the Participant Information Leaflet and a copy of this
consent form to keep.]

Signature of participant

Date

Signature of researcher

I believe the participant is giving informed consent to participate in this study.

Signature of researcher

Date

父母项目知情同意书（代表儿童）

圣三一大学

语言与传播学院

项目知情同意书

单双语儿童叙事产出和理解的跨文化研究

学生研究者：周梦琪，语言与传播学院，应用语言学系，博士在读

导师：Gessica De Angelis 博士，语言与传播学院

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如果我同意参与此项研究，将会需要我的孩子看图讲述两个虚构的故事、回答十个关于故事内容的问题。此项活动将会在校的教室进行或通过 Zoom 云会议线上进行，全程仅录音。研究者已具备由北京市派出所和都柏林派出所开具的无犯罪记录证明，但如我愿意，可于学校或线上观察数据收集的过程。此活动不涉及任何与您孩子隐私有关的问题，全程大概 30 分钟。

此研究旨在进一步了解儿童在 9 岁这个阶段汉语、英语及双语的叙事能力的发展。我的孩子将不会直接受益于此次研究。但是如果我和孩子感兴趣，可免费参与一堂 15 分钟的汉语语言课程。此课程非必须参加，如果我不感兴趣，可仅参与讲故事的环节。

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我知道部分录音可能会在语言教室或者学术会议上进行展示，录音转写将会被用于教学或者语言学研究。此项研究收集到的数据在未来可能会进行发表。原始数据及所有形式的副本只供此项目的研究者使用。原始数据将会被整理在同

一个文件夹，保存在研究者受密码保护的 U 盘中。所有数据将会使用 AxCrypt 软件进行加密。在中国期间，原始数据将会安全地保存在研究者的同一 U 盘中，进行加密。数据收集结束后，此 U 盘将被研究者带回爱尔兰，进行转写和分析。数据转写分析期间以及完成后，此 U 盘将被安全地保存在学校的办公室（艺术楼，4064 办公室）中。

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参与者签字

我了解此项目的内容并同意我的孩子参与此项目（另外，我已经收到了另一份项目知情同意书）。

参与者签字

日期

研究者签字

我相信参与者收到了项目知情同意书。

研究者签字

日期

TRINITY COLLEGE DUBLIN
SCHOOL OF LINGUISTIC SPEECH AND COMMUNICATION
SCIENCES

Participant Information Leaflet

**Monolingual and Bilingual Narrative Production and Comprehension
across Cultures**

*Student researcher: Ms. Mengqi Zhou, M.Phil Applied Linguistics, School of Linguistic,
Speech and Communication Sciences*

*Supervisor: Dr. Gessica De Angelis, School of Linguistic, Speech and Communication
Sciences*

You are invited to participate in this research project, which is being carried out by Mengqi Zhou, a PhD student in Applied Linguistics at Trinity College Dublin. Your participation is voluntary. Even if you agree to participate now, you can withdraw at any time without any consequences.

The study is designed to investigate the narrative production and comprehension of English-Mandarin bilingual children, and monolingual Mandarin-speaking children across cultures, specifically focussed on Ireland and China. This information gives children, parents and schools an idea of what the project involves. You can also contact the researchers directly with questions – our details are at the bottom of the form.

If you agree to participate, this will involve you in answering questions about story activities in the classroom and school. The interview will be carried out at school or via the online cloud meeting platform *Zoom*. This interview will only be audio recorded. No sensitive questions will be asked and I will explain the research purpose again at the start of the interview.

You will not benefit directly from participating in this research.

Any information or data which we obtain from you during this research which can

be identified with you will be treated confidentially. We will anonymise the data by using numbers to code each child and family's name.

The recording can be provided by requesting, when you will have the right to request the deletion of any parts you feel might reveal your identities. Portions of the recording may be played in linguistics classes or during conference presentations, while written transcriptions may be made for teaching purposes or for linguistic analysis. Data from this research project may be published in future. The original recording and all copies will be available only to the present investigator, Mengqi Zhou, and the supervisor, Dr. Gessica De Angelis. The digital data that are collected in Ireland and in China will be stored on a password-protected USB belonging to the present researcher. All the digital data will be stored in the same folder, and the folder including all the files in it will be encrypted using software AxCrypt. The researcher will have sole access to the key that links to the decryption of the folder. For the data that are collected in China, the encrypted data that stored in the same password-protected USB will be carried by the researcher to Ireland after the data collection is finished. During and after the transcription and analysis process, the USB with all the data will be safely housed in a locked office (Arts Building, room 4064) when the researcher is not present.

I will be pleased to answer any questions you may have about this research, contact number: +353 0873998167 (Irish), +86 13718010761 (Chinese), email: zhoum@tcd.ie. You are also free, however, to contact people involved in the research to seek further clarification and information, Dr. Gessica De Angelis (gessica.deangelis@tcd.ie).

项目信息说明书——老师/校长

圣三一大学

语言与传播学院

项目信息说明书

单双语儿童叙事产出和理解的跨文化研究

学生研究者：周梦琪，语言与传播学院，应用语言学系，博士在读

导师：Gessica De Angelis 博士，语言与传播学院

您受邀参加由周梦琪（应用语言学系，博士在读）实施的研究项目。您的参与完全是自愿的。即使您同意参与，如有需要，您可在任意时间退出此项目，并无需承担任何后果。

此项研究旨在研究不同社会文化和语言环境（中国、爱尔兰）下，汉语单语、中英双语儿童的叙事产出和理解。此项目书为意向参与此项活动的儿童，父母及学校老师提供详细的项目信息。如有任何疑问，欢迎联系此项目的研究者。联系方式可在页面下方找到。

如果您同意参与此项研究，将会需要您回答关于您学校阅读和叙事活动的采访（阅读活动例如：讲故事，看书，写故事等等）。采访可在学校，或通过 Zoom 云会议平台进行，将会全程仅录音。请放心，此采访不涉及任何与您隐私有关的问题。我也会在项目开始的时候就项目进行详细介绍。

此研究旨在进一步了解儿童在 9 岁这个阶段汉语、英语及双语的叙事能力的发展。您将不会直接受益于此次研究。

如您需要，此录音可与您分享，您有权要求删除任何您认为有可能造成您孩子个人身份泄露的部分此研究中任何与您有关的数据将会进行保密处理。我们将用数字编辑信息以达到匿名的作用。只有此项目的研究者能够接触这些信息编码。

部分录音可能会在语言教室或者学术会议上进行展示，录音转写将会被用于教学或者语言学研究。此项研究收集到的数据在未来可能会进行发表。原始数据

及所有形式的副本讲只供此项目的研究者使用。原始数据将会被整理在同一个文件夹，保存在研究者受密码保护的 U 盘中。所有数据将会使用 AxCrypt 软件进行加密。在中国期间，原始数据将会安全地保存在研究者的同一 U 盘中，进行加密。数据收集结束后，此 U 盘将被研究者带回爱尔兰，进行转写和分析。数据转写分析期间以及完成后，此 U 盘将被安全地保存在学校的办公室（艺术楼，4064 办公室）中。

作为此项目的研究者，我十分愿意回答您的任何问题，我的联系方式是+353 0873998167 （爱尔兰号码）， +86 13718010761（中国号码）， 电子邮件：zhoum@tcd.ie. 您也可以联系我的导师， Gessica De Angelis 博士 (gessica.deangelis@tcd.ie).

TRINITY COLLEGE DUBLIN
SCHOOL OF LINGUISTIC SPEECH AND COMMUNICATION
SCIENCES

Consent Form

Monolingual and Bilingual Narrative Production and Comprehension
across Cultures

Student researcher: Ms. Mengqi Zhou, PhD candidate in Applied Linguistics, School of Linguistic, Speech and Communication Sciences

Supervisor: Dr. Gessica De Angelis, School of Linguistic, Speech and Communication Sciences

I am invited to participate in this research project which is being carried out by Mengqi Zhou. My participation is voluntary. Even if I agree to participate now, I can withdraw at any time without any consequences of any kind.

The study is designed to investigate the narrative production and comprehension of English-Mandarin bilingual children, and monolingual Mandarin-speaking children across cultures, specifically focussed on Ireland and China.

If I agree to participate, this will involve me in answering questions about story activities in the classroom and school. The interview will take place in my school in my classroom, or via the online cloud meeting platform *Zoom*. This interview will only be audio recorded.

I will not benefit directly from participating in this research.

I am free to ask for having a copy of the recording, when I will have the right to request the deletion of any parts I feel might reveal my children's identities. Any information or data which is obtained from me during this research which can be identified with me will be treated confidentially. This will be done by allocation of a code number. Only the researcher should have access to the key which links code

numbers to individual identities.

The original data and all copies will be available only to the present investigator, Mengqi Zhou, and the supervisor, Dr. Gessica De Angelis. The digital data that are collected in Ireland and in China will be stored on a password-protected USB belonging to the present researcher. All the digital data will be stored in the same folder, and the folder including all the files in it will be encrypted using software AxCrypt. The researcher will have sole access to the key that links to the decryption of the folder. For the data that are collected in China, the encrypted data that stored in the same password-protected USB will be carried by the researcher to Ireland after the data collection is finished. During and after the transcription and analysis process, the USB with all the data will be safely housed in a locked office (Arts Building, room 4064) when the researcher is not present.

If I have any questions about this research, I can ask Mengqi Zhou, +353 0873998167 (Irish), +86 13718010761 (Chinese), email: zhoum@tcd.ie. I am also free, however, to contact the research supervisor, Dr. Gessica De Angelis (gessica.deangelis@tcd.ie).

Signature of research participant

I understand what is involved in this research and I agree to participate in the study.
[I have been given a copy of the Participant Information Leaflet and a copy of this consent form to keep.]

Signature of participant

Date

Signature of researcher

I believe the participant is giving informed consent to participate in this study.

Signature of researcher

Date

老师/校长项目知情同意书

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语言与传播学院

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我知道部分录音可能会在语言教室或者学术会议上进行展示，录音转写将会被用于教学或者语言学研究。此项研究收集到的数据在未来可能会进行发表。原始数据及所有形式的副本只供此项目的研究者使用。原始数据将会被整理在同一个文件夹，保存在研究者受密码保护的 U 盘中。所有数据将会使用 AxCrypt 软件进行加密。在中国期间，原始数据将会安全地保存在研究者的同一 U 盘中，进

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参与者签字

我了解此项目的内容并同意参与此项目（另外，我已经收到了另一份项目知情同意书）。

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参与者签字	日期

研究者签字

我相信参与者收到了项目知情同意书。

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研究者签字	日期