Family Involvement in Preschoolers' Bilingual Heritage Language Development:

A Cultural-Historical Study of Chinese-Australian Families' Everyday Practices

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Table of Contents

Abstract

In Australia many Chinese families send their preschool-aged children to learn Mandarin at weekend Chinese schools in the expectation that their children master Mandarin as a heritage language in the predominantly English-speaking community. Family involvement in bilingual development may be considered as an important factor in acquiring Mandarin (Esch-Harding & Riley, 2003; McCollum & Russo, 1993). Immigrant parents face the challenge of contributing to their children's heritage language development in the home context.

Research on bilingual and multilingual development has increased considerably in the past 20 years. Much work has been done on the linguistic perspectives of children's bilingual development, the majority of which has focused on bilingual language development in school and after-school class contexts (Kohnert, Kan, & Conboy, 2010; Laurent & Martinot, 2009; Nicoladis, 2006; Seidenberg & McClelland, 1989; Wang, Perfetti & Cheng, 2009; Wang, Perfetti & Liu, 2005). However, very few studies focus on how the family as a social unit supports their children bilingually, especially for children's heritage language development (Esch-Harding & Riley, 2003).

This thesis draws upon Vyogtsky's cultural-historical theories to explore how Chinese-Australian immigrant families support their preschoolers' bilingual heritage language development in their everyday family practice. The study looks closely at parent-child interactions to identify how they support children's bilingual heritage language development in everyday home contexts.

Three Chinese-Australian immigrant families who at the time of the research each had a four to five-year-old child born in Melbourne participated in the study. Data were generated over a period of 9 months through videoed interview, photographs and video observations taken by the participants and the researcher. The research began with an interview with the researched families using photos and video clips the families took within the first two weeks of the field work, in order to determine the families' values and beliefs regarding their children's bilingual heritage language development. The video

observation, as a second step of data generation, helped to capture typical everyday family activities within the home context and children's performance in the Chinese classroom. In order to develop a good understanding of the historically-located family practices in the everyday home context, the second videoed interviews were arranged after video observation and referred to recorded interactions.

The analysis of the data has been approached in four spirals, from *common-sense interpretation, situated practice interpretation, thematic interpretation* to synthetic analysis of family practices (Hedegaard, 2008b). This spiraled process of interpretation is not linear, but is dialectical in essence, conceptualized as a continuing upward spiral of progress, which helps the researcher investigate the communication and interplay between child and parents within their everyday family life step-by-step, deeper and deeper.

This thesis investigates parent-child interactions in role-play in the three research families, as well as their household activities and book reading practices in order to determine the pedagogical strategies parents use in terms of cultural-historical theory. The research presents the dynamic transformation process of children's bilingual heritage language development within children's everyday family practices. Furthermore, it argues that family play activities are an important mediating tool to achieve positive transformation dynamics in children's development. The central finding of this research indicates that effective parent-child interactions are key to the achievement of the positive development of children's bilingual heritage language.

In this study, the findings offer new insights into how parents can contribute to children's everyday practices through pedagogical strategies. The family pedagogical principle put forward as a result of the findings is that "two-way" engagement within children's zone of proximal development is an important factor in language development. "Two-way" engagement takes into account both parents' demands and children's motives when they interact with each other within everyday family practices showing a shared meaning of the words and activities. The "Two-way" engagement principle offers five strategies for parents to deal in an effective way with the conflicts between their demands and

children's self-awareness, and between their understanding of children's capacity and children's motives.

The findings regarding family pedagogical strategies can also be extended to apply to communication and engagement between teachers and children in general school settings. The recommendations to assist parents in supporting their children's heritage language development can be extended for use in school contexts, especially in play activity.

Declaration

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university or other institution and affirms that to the best of the candidate's knowledge the thesis contains no material previously published or written by another person, except where due reference is made in the text of the thesis.

Signed:

Date:

This research received the approval of the Monash University Standing Committee for Ethical Research on Humans project number CF07/4271 - 2006001033

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List of Publications

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List of Figures

List of Images

List of Tables

Chapter 1

Introduction and Background to the Study

1.1 Introduction of the Study

The importance of educational achievement for children within minority groups and young children from immigrant families has received increasing attention, as the population of Australia becomes more linguistically and culturally diverse (Hyde, 2010). With the recent rapid increment in the number of Chinese immigrants in Australia, the children of immigrants are the fastest growing child population. In 2006, those born in Australia into Chinese immigrant families represented 3.37% of the population (Australian Bureau of Statistics, 2006), representing a significant segment of the kindergarten and school population. Chinese immigrant families are challenged by and concerned about many issues, such as the loss of Chinese culture, traditions, values and identity, the loss of their heritage language, and separation from their extended family (Chiang & Yang, 2008; Tannenbaum & Howie, 2002; Zhang, 2008). However, the key issue for immigrant families is the maintenance of their Chinese language. Many immigrant parents and children do not want to "cut themselves off from their cultural roots – they wish to maintain cultural relations with the homeland and to keep their language" (Connell, 2010, p.133). It is well known that language is used to maintain and convey culture. Through language cultural heritage and traditions are transformed and conveyed to the following generations (Tannenbaum & Howie, 2002). Chinese immigrant families pay attention to the maintenance of the Chinese language and take on the challenge of communicating with the young second generation in Chinese within their everyday life. Furthermore, at the societal level, Connell (2010) argues that, "Given that language is one of the most vital bearers of culture, it is clearly important for Australia to foster its community language and knowledge of relevant cultures. This will enhance its social, cultural and economic relations …with its neighbours" (p.134). In the research context, it is necessary to support immigrant families in maintaining their heritage language, yet little is known about the ways in which adult interactions and communication contribute to children's bilingual heritage language development. This

thesis aims to find out how Chinese immigrant families support their preschooler's bilingual heritage language development through their everyday practices at home.

1.2 The Rationale of the Research

1.2.1 Research context.

As de Courcy (2005) points out, while the Australian government and education departments have paid close attention to minority children learning a second language, they have taken little account of the needs of children from non-English speaking backgrounds and their heritage language learning at school, especially in terms of bilingual support in early childhood education. Thus, the young children's bilingual heritage language study needs to be taken into account in Australia. This research is conducted in Melbourne, Australia, in which community, weekend or Saturday schools – the Zhong Wen Xue Xiao – serve Chinese heritage learners. Chinese schools play a significant social role in supporting Chinese immigrant families and children. Families send their preschool-aged children to learn Chinese in Chinese community weekend schools, with the expectation that their children will to be able to use Mandarin as another tool of communication with other Chinese people such as relatives and friends. Thus, their children will have the valuable opportunity of living with two languages in the Australian English-speaking environment when they become adults (Yip & Matthews, 2010). However, besides those three hours of Chinese school study each weekend, Chinese language competency is actually developed at home. A young preschooler's bilingual development permeates the everyday lives of families, and the practices we see are diverse and dialectically complex social experiences. As Kravtsov (2010) argues, "family is of absolute importance because it gives the child the universality of social communication" (p.63). The puzzle of how immigrant parents support their children's heritage language development is not yet resolved, according to the literature review (see Chapter 2). Thus, family involvement in young children's Chinese development could be considered an important issue, which is the key focus of this thesis.

1.2.2 Theoretical perspective.

An interest in the bilingual language development of young Chinese children within minority communities has also increased amongst researchers and practitioners (Raschka, Wei, & Lee, 2001; Wang, Perfetti, & Liu, 2005; Yip & Matthews, 2010; Zhang, 2008). According to the literature reviewed, most studies focus on children's bilingualism and bilingual education taking a linguistic approach (See Chapter 2). Yet, we know very little about Chinese immigrant parents' beliefs and strategies for bilingual development within the fabric of shared family practices. Furthermore, linguistic research does not focus on examining children's everyday contexts.

How do immigrant parents support their children's heritage language development through their everyday life? In light of this question, this thesis provides a different view of this issue. As not many researchers focus on investigating child development within their everyday practices and activities, this study utilizes Vygotsky's (1987d) theoretical framework on thought and language as the foundation (See Chapter 3) to analyse the family strategies applied to support their children's bilingual heritage language development. It looks closely at three Chinese-immigrant families' everyday practices, including role-play at home (see Chapter 6), household activities (see Chapter 7) and shared book reading (Chapter 8).

In terms of cultural-historical theories, language and thought are interdependent and influenced by each other; both are rooted in the culture of a particular group of people and in turn promote the shape and evolution of that group culture (Kozulin, 2003; Vygotsky, 1987d). This point of view contributes to understanding the lives and experiences of Chinese immigrant families in the Australian community. Their experiences are not the same as those of other people in either the host country (Australia) or their country of origin (China). In fact, they are situated in a particular socio-cultural context that has been shaped through their experiences and relationships with the majority culture in regard to the needs of the Australian community. According to Vygotsky's (1987d) cultural-historical approach, human developmental processes take place through the participation in cultural, linguistic, and historical contexts such as

family life, peer group interaction, school settings and various other environments (Lantolf & Thorne, 2007).

This study takes a dialectical-interactive methodological approach (Hedegaard, 2008c), whereby family's everyday practices are investigated in order to understand how parents' engagement and interactions with their children support their children's language development at home. Three Chinese-Australian families' practices were filmed at different times during the day, such as morning tea, afternoon activity, dinner time, and during Saturday Chinese School, so as to observe a broad range of activities related to children's Mandarin development in both the home and the school (See Chapter 4). Family photos, video clips and family interviews were analysed, but in turn shaped the analysis. The findings reported in this thesis offer new insights into children's bilingual heritage language development and provide a pedagogical model of family strategies for supporting children's language development (See Chapter 9), which will contribute to cultural-historical theory and bilingual education.

1.2.3 Personal narrative.

I was born into an academic family and educated in China, and learned of the idea of dialectic thinking while I was still in high school. I became an international student when I came to Australia in 2003, and finished a Double Master Degree with a Master of Early Childhood Education and a Master of TESOL. In 2006 I finished my Graduate Diploma of Education in Early Childhood. My own educational experiences have developed my understanding of language teaching, child development and research theories. My working experience with toddlers and preschoolers in an Early Learning Centre in Melbourne further increased my practical skills in this field. For four years I have also been teaching preschoolers Mandarin during weekends at a Chinese school, which offers classes from an early age (3-4 years old) to Year 12 VCE. Most of the students in the school are from Chinese-immigrant families, with parents hoping their children will be able to learn to speak Mandarin as another language. The immigrant families understand how important it is to maintain their heritage culture and language in the next generation. However, not many parents speak Mandarin to their children within the home, preferring to use English or Cantonese to communicate with their children.

When their children get older they start to focus on supporting their Mandarin language development in the home and begin to talk to their children in Mandarin. But, they feel it is a big challenge to push their children to communicate in Mandarin at home. The experience of teaching Chinese has increased my interest in Mandarin language learning and development in children's everyday lives, and I hope to help immigrant families support their children's Mandarin development through their everyday practices. In brief, my study and teaching experiences have led me to focus on this particular research area and have shaped my research questions.

1.3 Research Questions

The purpose of the study is to identify family child rearing practices associated with children's bilingual heritage language development from cultural-historical perspectives. This perspective utilizes mainly Vygotsky's theorization of play, mediation and motives development for analysis.

The main research question for this study is:

What are the ways parents support their children's bilingual heritage language development in their everyday family practice?

Subsidiary questions are:

1. How do parents participate in play activities in order to contribute to children's bilingual heritage language development? According to Vygotsky's cultural-historical concept of play (See Chapters 3 & 6), play is considered as the leading activity for preschoolers, as play creates the source for children's development. Therefore, this research first focuses on how parents support their preschoolers' Mandarin language development in play activity.

2. What other interactions between parent and child appear to be important in supporting children's bilingual heritage language development? This research investigates three families' everyday practices to seek the other interactions, including household activities (See Chapter 7) and storybook reading (See

Chapter 8). Thus, the other interactions between parents and child are considered an important aspect to support children's bilingual heritage language development.

3. What are the strategies parents use to support their children's bilingual heritage development and how are they related to their cultural values and beliefs about child-rearing and learning? This research question seeks to identify the family pedagogy in regard to family's beliefs and values in child rearing (See chapter 5 & 9).

1.4 Explanation of Terms

1.4.1 Bilingual heritage language.

According to Cummins (2005), the term bilingual heritage language "refers to the languages of immigrant, refugee, and indigenous groups. In principle, this includes all languages, including English (native English speakers have a heritage also!), but, in practice, the term is used to refer to all languages other than English" (p.586). In this study, preschoolers from Chinese immigrant families speak Mandarin as their home language, though English is the majority language in Australia. Hence, Mandarin must be considered as their bilingual heritage language.

Vygotsky (1998e) pointed out that "Where speech plays a role in the communicative function, it is connected with pronunciation and talking and is manifested in vocalization" (p.269). Thus, another thing needs to be clarified; that this study of the heritage language development of preschool children focuses on their oral speech development and communication development.

1.5 The Thesis Structure

The first chapter introduces the research topic and the background of the research context in order to present the significance of the research. Meanwhile, Chapter One also discusses the rationale of the study, explaining the reason why immigrant families' involvement in preschooler's bilingual heritage language development is an important issue. Some special terms related to the topic have been elucidated.

6

The second chapter this thesis is a literature review, which organizes the readings into key themes and issues that are important in understanding previous ideas concerning bilingual studies. It includes a discussion of the importance of immigrant family involvement in bilingual practice, contemporary studies on language development in everyday practice, and bilingual studies from a linguistic perspective; all these sections show that bilingual heritage language development from a cultural-historical perspective is under-researched.

A theoretical framework has been developed in Chapter 3 in order to orient the study in relation to the research questions. It shows how powerfully Vygotsky's cultural-historical theory guides this study.

The methodology of the study has been presented Chapter 4, including the philosophical assumptions, research paradigms, approaches for data collection and analysis, and the role of the researcher.

The focus of the fifth chapter is the research data from the three researched families, including the background of each research family and their everyday family practices, in order to show a birds-eye view of the research families' child rearing practices and beliefs about children's bilingual development.

Chapters 6, 7 and 8 discuss the three research families' typical everyday practices in order to show how the parents engage in children's everyday practice in support of their Mandarin development. These typical family practices take into account children's role-play, household activities such as dinner conversations, baking and gardening, and storytelling and shared book reading experiences.

Chapter 9 concludes the thesis, presenting the contributions of the research to the theory and its implications for practice.

Chapter 2
Literature Review

For children, the development of language is a development of social existence into individual persons and into culture. (John-Steiner & Tatter, 1983, p.83)

2.1 Introduction

In this chapter, the critical literature review provides an overview of past research to show what knowledge and ideas have been established on bilingual development and to identify gaps which this study will fill. This chapter also justifies the choice of research question and theoretical and conceptual framework based on reviewing the literature.

2.2 The Importance of Immigrant Family Involvement in Bilingual Practice

Families vary greatly in the extent to which they provide a supportive environment for children's bilingual development. Over the past three decades numerous studies from the English-speaking world have pointed to the advantages of family involvement in preschoolers' development. Recent studies have emphasised the major impacts of family involvement in young children's bilingual practice (Liu & Vadeboncoeur, 2010; Parke & Drury, 2001; Qian & Pan, 2006). Many immigrant families in particular believe that children need to communicate with parents and other family members who speak the heritage language in order for them to develop bilingual competence (King & Mackey, 2007; Rodriguez, 2010; Yoshida, 2008).

2.2.1 The role of parents.

Parents carry out the same functions at home that teachers do in the schooling environment to support young children's language acquisition and development (Rasinski, Bruneau, & Ambrose, 1990). In her review of the current research, Raban (2001) has emphasized the role of parents in developing children's reading and oral

language skills. She confirms that parents are able to "recognize and take advantage of the 'teachable moment'" in the home context (p.35). Essentially, parenting styles can promote social competence and language development at the preschool level, as it assists children's early development of the problem-solving and self-regulation skills that are necessary for social success (McWayne, Owsianik, Green, & Fantuzzo, 2008). Furthermore, in the development of language and the development of cognitive skills, family environments can offer a social context for a child's exploration of their environment, self-expression, communication and interactions with others. As Johnston and Bugental (2000) state, "parents are primary shapers of their children's cognition" (p.320).

Liu and Vadeboncoeur's (2010) study, conducted in Liu's home, focused on bilingual intertextuality as a feature of discourse analysis in order to track the development of bilingual proficiency in the home context. They argue that parents need to use their home language as a strength to help their children build upon bilingual foundations. Gillanders and Jimenez (2004) have supported this perspective through qualitative research on the role of active parental support and corresponding literacy practices in low-income Mexican immigrant families. They found that literacy activities and effective parental interaction with children at home provide a rich context in which to develop bilingualism effectively and, accordingly, for literacy learning. This present study also sets out to investigate this issue of interactions with parents. One of the research aims is to identify the interactions between parent and child in supporting children's Mandarin development in Chinese Australian family settings. The researcher understands and describes parents' perspectives through qualitative research according to family values in a situated cultural context.

2.2.2 Family environment to bilingual development.

Coleman's (1988, 1990) social theory of family capital illustrates the family environment, including the physical, social and human capital in family roles in aiding the development of children and facilitating child socialization. Coleman (1988) considers family backgrounds to consist of three components: financial capital, human capital, and social capital. Here, financial capital can be observed and be related to the

family income and economic status, which shape the availability of educational physical resources and learning materials to support family member's achievements. Human capital, in contrast, is "less tangible, being embodied in the skills and knowledge acquired by an individual" (p. S100). Within the family context, human capital is related to parents' education and the cognitive environment they provide to their children's development. As for the social capital, it can be considered as social relations among the people. Family networks and interactions in the particular community can be classified into this category. The financial capital, human capital and social capital shape and influence the quality of the developmental environment of children (G. Li, 2007).

Some empirical studies support these ideas. Following Coleman's social capital theory, Parcel and Dufur (2001) analyse the longitudinal data on over 2000 primary school students' math and reading achievement in order to investigate the effects of both family and school capital including financial, human and social aspects. These findings suggest that school capital effects are modest in size while family capital effects are stronger on child development. In particular, family social capital and relations can play a key part in influencing child outcomes. Family social capital refers here to the relations between parents and children in assisting the children's development and promoting their well-being. It also refers to the social connections both parents have with others outside the family, such as neighbours and friends (Coleman, 1990; Parcel & Dufur, 2001).

In a bilingual family, these three forms of family capital interrelate and reflect the quality of the language development of children. Li (2007) takes another view of the family capital and confirms the functions of family capital in child language achievement. She conducted an ethnographic study with four Chinese immigrant families in Canada and examined how different family capitals affect immigrant children's bilingual language development in a home context. Li (2007) suggests that parental human capital plays a central function for the families to support the other two forms of family capital to affect children's language learning and development. In other words, parental educational factors shape their parents' expectations and their involvement in their children's development.

Other studies have shown how the family provides many opportunities and resources to children for talk and communication (Raban, 2000). Ro and Cheatham (2009) conducted a case study with a Korean immigrant family in United States and analysed a child's oral bilingual and biliterate development and the influences of environmental, social and cultural factors. They argue that "families can engage in practices to facilitate home language and literacy development" to achieve the highest level of children's bilingual development (p.304). Their research emphasises the importance of families' consistent talk in the heritage language, and their provision of an authentic situation for heritage language use and opportunities to visit the home country. It can be seen that families carry out important functions in children's bilingual development.

This study foregrounds the important functions of family capital. It follows Vygotsky's view on child development to examine how the family social interaction assists a child's language development. It contributes to supporting parents in helping their children's heritage language development in the family context.

2.2.3 Parents' beliefs /values in bilingual child rearing practice.

In researching immigrant family patterns, Foner argues (1997) that "the cultural understandings, meanings, and symbols that immigrants bring with them from their home societies are also critical in understanding immigrant family life" (p. 962). In order to understand the first generation Chinese immigrant families' everyday activities, it is necessary to capture their beliefs regarding child rearing practices. They reproduce their origin cultural patterns when they move to a new society, and these original cultural meanings still have a powerful influence in shaping family values in children's education (Foner, 1997).

Empirical evidence has shown that cultural beliefs, concepts, values, and standards of competence have implications for child-rearing practices in different cultures (J. R. Johnston & Wong, 2002; Lin & Fu, 1990; Park & Sarkar, 2007). Furthermore, Tudge (2008) believes that engagement in everyday activities with other members of the cultural group such as parents and siblings plays a powerful role in helping children become more knowledgeable in the behaviour of that particular group. He applies the

cultural-ecological theory in order to compare the different cultural groups' engagement in their everyday activities, including childrearing practices. Parents' cultural beliefs not only shape observable parent-child interactions, but are also implanted in the structure of the family environment and the continuing history of family priorities and decisions, thus influencing child development (Chao, 1996; Johnston & Wong, 2002; Tudge, 2008). Li (2006) conducted research on three Chinese Canadian children regarding their biliteracy and trilingual practices within the home context. She suggested that the home context is a crucial environment for the success or failure of biliteracy development. In regard to heritage language maintenance, where a majority language in a host society is dominant, parental validation of the heritage language may strengthen the position. This constitutes the family practices and contexts.

Furthermore, Li's research indicates that parent's perceptions of their minority status, their beliefs toward their host society, and their proficiencies in the two languages, can also play significant roles in shaping their supporting efforts and use of resources at home, and hence, regulating their children's development in becoming biliterate and multilingual. Lao's (2004) investigation with 86 parents of children who participated in a Chinese-English bilingual preschool in San Francisco shows that the majority of the parents intended to encourage their children to speak Chinese at home and that their children's Chinese competence level varied due to the availability of Chinese language resources. Furthermore, as Lao (2004) points out, children could benefit from the guidance of parents with a high level of heritage language literacy who can interact with them, expose them to literacy in the heritage language and scaffold their use of the language. However, study on how to support children's heritage language development has not yet been elaborated in this field. The current study not only seeks to examine Chinese immigrant parents' attitudes and expectations towards children's bilingual proficiency, but also to show how the family supports children's heritage language development at home in order to reveal the family pedagogy in practice.

Research in this area of investigation, it has been noted by Johnston and Wong (2002), has investigated the beliefs and practices of Chinese culture, showing that parent-child interactions do affect the child's language development. One of their findings based on their survey data was that Chinese parents create explicit language lessons rather than

embed their teaching in play because they believe that the potential for learning in play activities is low. That is, Chinese parents believe they need to provide direct teaching or tutoring for children rather than fostering the child's interest and skills in language learning through play. One important factor that needs to be considered in this tendency, is that while Chinese and immigrant Chinese parents are attempting to adapt to the necessary changes within a changing cultural environment, traditional values and practices that are deeply rooted in Confucian principles still have a great deal of influence on their child-rearing practices (Lin & Fu, 1990). Specifically, immigrant families have to assimilate and adapt to their new cultural environment, while still maintaining the social needs of their culture of origin. Research question two of the present study aims to find out the changes in children's language development over time and to identify the kinds of play activities that support the immigrant family in contributing to children's bilingual heritage language development. To this end, this study will examine how and what role Chinese immigrant families take in children's play.

Knowledge regarding child-rearing values, attitudes, and behaviours among Chinese parents in Australia is limited; this study seeks to redress the paucity of understanding. Research question three relates to finding out what strategies Chinese Australian parents use in order to support their children's bilingual heritage language development and how they are related to their cultural values and beliefs about child-rearing and learning.

2.3 Contemporary Studies on Language Development

2.3.1 Cultural-historical research on language development in play.

Research into young children's language development in play has had a long history, with a growth in understanding about the object substitutions of the role-play related to children's language and literacy development (Christie, 1998; Lewis, Boucher, Lupton, & Watson, 2000; Shore, O'Connell, & Bates, 1984; Smith & Jones, 2011). These research studies have illustrated how children use the substituted object to replay the real one, which can give meanings and significance to children's early language development. Other lines of research have usefully explored the connections between

children's play and narrative in children's development can support children's cognitive and language development and their imagination (Goldman, 2000; Nicolopoulou, 2006).

Research has shown the strong connections between role-play and children's language development. However, how is the role-play important to support preschooler's language development? The cultural-historical studies on language development in play provide an explicit answer and argue that there are dialectical relations between symbolic thinking and language in play. Through play, children learn how to interact and communicate with others and improve their cognitive skills through the promotion of social, emotional, and academic learning (Bergen, 2002; Bodrova & Leong, 2003; John-Steiner, 2007; Kim & Kellogg, 2007). Many cultural-historical researchers have found that the role-play in peers has been related to children's language and literacy development (Andresen, 2005; Branco, 2005). Children can use verbal language or metacommunication to explicitly express ideas and imagine the roles they wish to act out as they imitate and reinterpret reality, while they use private speech to regulate their behaviours in order to collaborate among peers (Branco, 2005). Hence, play enables children to exhibit their linguistic abilities and enhance their language development, consequently helping children promote their language skills, and in particular their verbal communication.

Within the play of preschoolers, social interaction generates opportunities for face-to-face communication among children, which contributes to their linguistic performance. That is, "language creates fictitious meanings and plots and thus to create the whole play" (Andresen, 2005, p.388).

Metacommunication is a kind of communication that indicates how verbal information should be interpreted, and illustrates the transformed meanings of verbal communication. Bateson (1976) states that metacommunication adjusts the social interaction within play and indicates the context or framework in which the transformed meanings should be interpreted. Thus, the relationship between role-play and metacommunication becomes very important for children's development. In role play, children can use metacommunication to clarify, maintain, negotiate, and direct the emerging play framework (Sawyer, 2003).

14

Vygotsky's central concern regarding language development is the relationship between the development of thought and words. His theories focus on language first as a form of social communication, before gradually promoting the development of language and cognition. That is, children use language not only for communicative purpose, but also for thinking (John-Steiner, 2007). Vygotsky (1987d, p. 120) concludes that "the development of child's thinking depends on his [sic] mastery of the social means of thinking, that is, on his [sic] mastery of speech and on the child's socio-cultural experiences". In studying the development of language from a Vygotskian perspective in relation to the social, linguistic, and cultural contexts of language development, John-Steiner and Tatter (1983) assert that:

> From birth, the social forms of child-caretaker interactions, the tools used by humans in society to manipulate the environment, the culturally institutionalized patterns of social relations, and language operating together as a socio-semiotic system are used by the child in cooperation with adults to organize behavior, perception, memory, and complex mental processes. For children, the development of language is a development of social existence into individual persons and into culture. (John-Steiner &Tatter, 1983, p.83)

Vygotsky theorises that the development of language functions is initiated firstly between people and only thereafter does it occur internally within the child. Higher mental functioning begins with external and communicative interaction which provides the possibility for young children to use language and to plan their actions with others in play, a transition from communicative language into inner speech occurs and interpersonal processes become intrapersonal (John-Steiner, 2007). Vygotsky considers the onset of private speech as important for the development of children's thinking, as it can be seen as the beginning of verbal thought. It can be seen as serving the transformation from externalisation to internalization, which is a large factor in the sociogenesis of human development. Within this transformation, private speech acts as the transitional stage from social to inner speech, guiding children's thoughts and actions in role-play. Children's play involves play roles and rules, and supports the development

of language, especially the oral language of preschoolers, as young children are motivated to generate explicit and elaborate language for their play.

From Andresen's (2005, p. 390) perspective, metacommunication, in connection with role-play, takes on a similar role to regulatory private speech, functioning to "transform meanings of things, persons, actions and the whole situation". For example, a child could say *pretend you are my mum and I am your daughter* and later plan the actions, stating them explicitly, such as *pretend you cook some cookies for me*. Without children using symbolic tools and communicating the meanings to each other, the role play would not exist at all (Andresen, 2005). Hence, metacommunication regulates the role and therefore the specific behaviours that children act out through the transformation of the role, materials, actions and emotions within role play.

Formally, metacommunication can be framed as either explicit or implicit (Bateson, 1976). Explicit metacommunication relates to the transformed meanings within role-play as expressed by special verbal utterances such as *pretend*. In the research by Sawyer (2003), a child can metacommunicate and speak in a narrator's or director's voice while he/she enacts the roles in the play frame. Children also use implicit metacommunication in the role-play. For instance, Tom and Kim engage in waiter-customer play at the restaurant corner, and Tom says, "*It must be a booking, I need to take this call*" whilst picking up the phone beginning to talk to an imaginary person. At this moment, another child called Jerry joins their play and talks to the waiter (Tom) about booking on the phone. Through this utterance Jerry enters into this play activity although he has never been mentioned before. The situation is transformed with this utterance as the metacommunication tool. The waiter (Tom) created a new situation by talking to the customer on the phone, and informs the customer (Kim), while Jerry realised the meaning of the situation by the utterance; that is, the implicit metacommunication. Thus, metacommunication serves the role play by making up the context and verbal or nonverbal play frame.

Using language in play improves the ability to move between levels of metacommunication. Andresen (2005) investigated forty-eight children from the ages of three to six to identify the metacommunication changes from explicit to implicit

performance with sociodramatic play, in relation to the improvement of children's cognitive development. Implicit communication is not typical of younger children, and explicit metacommunication diminishes in older children (Andresen, 2005; Branco, 2005). Furthermore, Yun's (2008) research also confirms this point of view. Her research draws upon Vygotsky's theory of play to investigate the connections between play and children's language socialization among bilingual Korean children. Yun's research exemplifies specific features of language in role-play, which are "metacommunicative verbs, deictics, and code-switching" (p.252) through the comparison of two different age groups. An important finding of the research is that bilingual children develop the role-play from more explicit metacommunication toward more reality-based implicit metacommunication when they get older. From this it can be seen that role play provides the chance to develop metacommunicative ability, which in turn develops children's role play.

The change from explicit to implicit metacommunication during the preschool years is connected to Vygotsky's ontogenetic development from interpsychological to intrapscychological functioning. It is an operation that initially represents an external, interactive, communicative process, which is later reconstructed and internalized (Reunamo & Nurmilaakso, 2009). Likewise, external, communicative speech, as well as private speech, turn 'inward' to become the basis of inner speech (Vygotsky, 1978). The extent to which older children can act out their imaginary roles without typical actions or verbal words as support, displays their ability to produce more implicit metacommunication language (Andresen, 2005). In other words, the verbal, explicit communication and the contextual meanings of object and actions within role-play become internalised. Language utterances and grammar become internalised and more sophisticated play parameters constitute older children's interactions (Branco, 2005). Therefore, play becomes determined by inner planning and interpreted by implicit communication.

One of the study purposes is to seek parents' support for children's bilingual heritage language development in role play with regard to family pedagogy. It is necessary to review the previous research on how adults support children's language development in play.

2.3.2 Adults' support for children's language development in play.

➢ **Promoting children's understanding of the nature of the meaning-object connection.**

According to Vygotsky (1966), in role play the child separates the objects/action from meaning. Children rely on interactive mediation via concrete objects or representational actions to reproduce the real situation in the play. In play children borrow the substitute objects as a mediating tool for severing thoughts from the objects.

Moreover, Adult mediation is needed to help children internalise the use of object substitutes as characteristic features of their play (El'konin, 1978). To promote children's cognition on the nature of the meaning-object connection is to "encourage children's use of diverse substitute objects or use of the substitute objects in different ways" (Duncan & Tarulli, 2003, p.286). Bodrova (2008) also holds a similar view on this point. She proposes that assigning new names to the play props which are used in a new function helps children internalise the symbolic nature of words as the child first "unconsciously and spontaneously make use of the fact that he can separate meaning from an object" (Vygotsky, 1966, p.13).

Here is an example from Duncan and Tarulli (2003).
In the grocery store game

> Step 1: Using plastic toys bananas and apples at the first day

> Step 2: Making use of the card with pictures of bananas and apples on the following day

> Step 3: Using yellow colored poker chips to substitute for bananas and red one for apples on another day

> Step 4: With arbitrary color assignments such that bananas are now represented by blue colored poker chips and apples by purple one.

<div align="center">(Duncan & Tarulli, 2003, p.287)</div>

In line with Vygotsky's view, children would gradually make a clear separation between meaning and object. At the end of preschool period, the child is able to appreciate the difference "between situations in thought and real situations" because of children's engagement in a lot of play (Vygotsky, 1978, p.104). Finally, children draw on a great degree of abstraction in the use of substitute objects in the role play.

An adult may use a game with critical play materials to scaffold the development of degrees of abstraction in the use of substitute objects (Duncan & Tarulli, 2003) which is guided by El'konin (1978)'s views on the role as the unit of play. Children learn to use symbols in play in two ways – by using the toys and props and through interaction with others. Parents or other educators may provide field trips such as visiting a farm, grocery store, and clinic, or books, and props for the play to promote children's ability to reproduce the content of the story in play and to scaffold the pretend scenarios (Bodrova, 2008). Furthermore, educators talk to children about those places they visit and explain the relationships amongst children to enhance their understanding of the roles in social life. As a result, children spontaneously engage in play, reflecting their visit or the everyday social situation. Johnson, et al (1987) conclude that

> Teachers can help clarify children's understanding of themes and roles by providing relevant experiences such as field trips, classroom visitations by people in different occupations, and stories about different jobs. Parents, of course, can provide similar experiences for their children. (p. 29, as cited in Karpov, 2005, p.146)

An adult determines the opportunities through supporting children to create their own play context, or by providing props for the play, which would offer children the possibility of selecting an object from a range of things and transforming that object into another in the play interaction with peers (Rogers & Evans, 2008).

> ➢ **Developing children's meta-level awareness of social roles and rules by providing relevant play experience for imitation**

According to El'konin (1978), the center of socio-dramatic play is the roles children take, which determine the way they use the play materials and the relationships amongst children in the course of the game. Children need to understand the roles and relations to be able to imitate them in the role play. However, as we know, children cannot learn by simply observing adults' behaviours. Children are unable to know why adults carry out particular kinds of actions and what the relations between the different social situations are. Thus, educators need to introduce and explain to children real life situations in order to encourage engagement in high quality role play. This includes explanation of the purpose of the behaviours, and the cause-effect relationships between different behaviours (Bodrova, 2008). It is particularly important pedagogical practice to talk about and discuss the social roles children are interested in to make children aware of the roles in everyday life and able to act them out in their play. To this end, children need to be provided with an appropriate play experience in which they can imitate the social roles in the play immediately after the conversation (Bodrova, 2008; Bodrova & Leong, 2003).

Vygotsky (1966) points out that owing to the rules in play, "the child is free, but this is an illusory freedom" (p. 10). Play relies on rules and becomes "highly rule-governed" (Duncan & Tarulli, 2003, p.278). Furthermore, Vygotsky (1978) argues that the continual development of children's play is from an explicit imaginary situation with implicit rules (this is called "Plot role play", by Kravtsov & Kravtsova, 2010, p.33) to an implicit imaginary situation with explicit rules (dubbed "Rule game"by Kravtsov & Kravtsova, 2010, p.33). The child develops "an internal rule, a rule of self-restraint and self-determination" (Vygotsky, 1978, p. 100), which later will be acted in the real situation. With regard to the rule of play, Vygotsky (1978) states that

> play continually creates demands on the child to act against immediate impulse. At every step the child is faced with a conflict between the rules of the game and what he would do if he could suddenly act spontaneously. In the game he acts

counter to the way he wants to act. A child's greatest self-control occurs in play. (p. 99)

Thus, adults should introduce some games such as memory cards to improve children's mental awareness of rules and regulate their behaviours in play. As children recognise how they experience the rules of everyday life in play, they would have fun in the play and the play can be continued.

> **Scaffolding children's play skills from inside and outside play by using appropriate language**

Children need to acquire the skills from more expert members of their culture through adult-child teaching interactions (Vygotsky, 1987d). Imitation in play provides the possibilities that children create the actions toward the adult model and intervention and internalize the assistance from the adult within the zone of proximal development (ZPD – see Sections 2.3.4 and 3.5 below). Particular assistance can be given by providing appropriate language use for children to imitate in play to improve the quality of play. An example is language to express the shared meaning and play planning.

Children have the desires and motives to act like adults (El'konin, 2005a). Thus, providing the adult's model and interventions constitutes an important strategy for improving the quality of children's role play. However, what kinds of intervention would be suitable for this purpose?

Karpov (2005) offers some directions or tactics. On the one hand, adults' intervention can indicate the explanation of the social roles and relations to children which is enough for some children's engagement in play. On the other hand, for those children who are not familiar with the social situation, explanation or visitation of the social role and relations alone is not sufficient for them to engage in the role play, so adults' interventions should be skill-centered as well as content-centered (Karpov, 2005). In other words, adults need to teach children in order to develop their play skills in their play, but not impose the social roles and themes.

Smiliansky and Shefatya's (1990) longstanding studies on play help to explain how to teach children play skills.   In the case where the adult is outside the play, the intervention should be as follows:

> **Questions**:   How   is   your   baby   today?
> **Suggestions**:   Let's   take   your   baby   to   the   clinic.
> **Clarification of behavior**: I did the same when my baby was ill.
> **Establishing contact between players**: Can you please help her, nurse?
> **Straightforward directions**: Show the nurse where it hurts your baby. Tell her all about it. (Smilansky & Shefatya, 1990, p.151)

From this example, it can be seen that adults may provide children with guidance, responses or instructions to enact their play and support their engagement.

Here is another example of adult mediation. The intervention is from inside the play and the teacher joins the child's play to enact the relevant role to play by using appropriate language for imitation by the children.

> The teacher can activate a whole group of children, emphasizing the missing play components for each child in her contact with the child. Thus, if she knows that Miriam, who is playing a mother, does not use make-believe with regard to objects, the teacher can say to her, from within her role as nurse, "*Here is the medicine*, Mrs. Ohajon" and pretend to give her something. She can elaborate further: "*give two spoonfuls to your baby. She is very ill and should not go out in this cold. Here is the telephone*". (Smilansky & Shefatya, 1990, pp.151-152)

With regard to these two examples, teachers not only contribute guiding strategies to improve children's play quality, but also show the language model to children on how to interact and communicate with their play partners. Thus, adult mediated children's play can be indicated through suggesting and elaborating the plot of play, and helping children distribute, adopt and enact the play roles (Karpov, 2005). Children are usually engaged in communication and linguistic actions during social-dramatic play. For

example, in children's play, they may write down a grocery list just as they have seen adults do; If children play the role of a doctor, they can learn some new words, for example, questions about coughing.

In conclusion, from a cultural historical view of the play-language relationship, derived from Vygotsky's cultural historical development theory, children's play is influenced by cultural and social understandings, which are evident in language discourse. Hence, play gives rise to opportunities for exploring children's linguistic concepts and language skills. In play, the need for collaborative social interactions with others provides the chance to use language in thought processes and demonstrates linguistic knowledge and skills. Play promotes the elaboration of language processes through the complex social interaction such as imitation, negotiation, conflicts and other kinds of communication. By reviewing contemporary literature, it is shown that adults have a key role in encouraging children to engage in play, and thus support their children's language and literacy development. However, the research reviewed focuses only on teachers' interventions in children's play and development in school-based programs (Duncan & Tarulli, 2003; File, 1994; Fleer, 2010; Raban & Coates, 2004; Smilansky & Shefatya, 1990; Trawick-Smith & Dziurgot, 2010). As discussed earlier, parents take the major responsibility to support children's language development (Rasinski, et al., 1990) and bilingual heritage language development in immigrant families (Liu & Vadeboncoeur, 2010). The current study investigates this unresearched area, drawing upon Vygotsky's cultural-historical theory to examine the ways immigrant parents support preschoolers' heritage language development, including parents' interactions with their children in play activities.

2.3.3 Children's language development in everyday life contexts.

Cultural-historical approaches to language development emphasise the importance of integrating children's everyday life and family practices into school pedagogy (Cumming-Potvin, Renshaw, & van Kraayaenoord, 2003). Everyday life is one of the main research areas in language development. An extension of interest in children's development concerns everyday life experiences the child is engaged in. This idea was pursued by Tudge (2008), who investigated the everyday lives of young children in

different cultural contexts. He argued that "one of the most important factors in everyone's development, children included, is their typically occurring engagement in everyday activities with the people who spend a good deal of time with them" (p. 90). The concept of children's development as participation in everyday practices is more fully developed in Hedegaard (2009) and Fleer and Hedegaard (2010). They draw upon a Vygotskian cultural-historical approach and his concept of the social situation of development in order to examine how home, school and kindergarten as institutional contexts, in which most children are engaged, dialectically interrelate and influence how a child develops. Children learn and develop through participating in the institutional practice. Thus, the everyday experiences of children need to be a focus of research on the language development of children. Moreover, as discussed earlier, the home context is the main situation for children practising their heritage language in Australia. Thus, the everyday family language practices are considered to be the main research site to seek how the family supports preschooler's bilingual heritage language development.

In the literature of bilingual education, there is a wealth of research exploring the home experience and family interaction in learning bilingual languages (G. Li, 2006; X. Li, 1999; Liu & Vadeboncoeur, 2010; Rodriguez, 2010). Many suggestions have been put forward to encourage schools and communities to get immigrant families involved in children's bilingual education. For instance, the study conducted by Perry, Kay and Brown (2007) investigate how Latino immigrant families collaborated in school-based interactive literacy activities and integrated these into their home literacy practices. They found that the family literacy program the family joined in played an important role in parents' willingness to appropriate school-based literacy activities in their everyday lives. Rodriguez (2010) explored the home language experiences of three young girls in learning English and Spanish in the United States. She identified the patterns of interactions between the family members and three girls, mainly focusing on which language the three girls used within the family conversation during the researched period. The findings suggest that the minority language may have to be supported outside the home in order to raise children bilingually. However, it does not consider in which ways the three girls' families interacted with them and how the social interactions influenced the three girls' language development. In contrast, this current study emphasizes the

ways families support children's bilingual development at home and weekend school contexts and seeks the similarities and differences among the three researched families in raising children bilingually.

Immigrant parents play an important role in their children's success with bilingual education (X. Li, 1999). Adults and parents can assist children's bilingual development through children's exposure to the languages in their everyday natural language-learning situations (Liu & Vadeboncoeur, 2010). Immigrant parents communicate on a daily basis with their children which makes a big difference to the development of children's bilingualism (X. Li, 1999). This current study is also concerned with everyday family conversations, such as those occurring at dinner and bed story time in order to examine family engagement in children's language development and learning.

2.3.4 Cultural-historical approach to second language development.

Many researchers apply a cultural-historical approach to the investigation of second language development, emphasizing as it does the social and cultural factors in second language acquisition. One aspect that has attracted recent attention in Australia is the importance of the educational achievements of minority children or young children in immigrant families as the population of Australia becomes more linguistically and culturally diverse. In addition, interest has increased among researchers and practitioners in the second language acquisition of young bilingual children in minority communities (DeBey & Bombard, 2007; Kemppainen, Ferrin, Hite, & Hilton, 2008). According to the cultural-historical approach, human developmental processes take place through participating in cultural, linguistic, and historical contexts such as family life, peer group interaction, school settings and various other environments (Lantolf & Thorne, 2007). In particular, a growing number of research studies have demonstrated a focus on the social and cultural origins and contexts of second language acquisition (Donato, 1994; Lantolf, 2003; Lantolf & Appel, 1994b; Ohta, 2001).

Lantolf and Appel (1994a) drew upon Vygotsky's cultural-historical theory of thought and language in order to examine how speaking functions mediate the cognitive activity of first language (L1) and advanced second language (L2) speakers/readers of English as

they were asked to read and recall orally an expository and narrative text. Twenty-eight students from an American university and a German university participated in their study. It used recall tasks to assess the extent to which readers had understood a text both in L1 and L2. The researchers concluded that private speech is not only a tool for mediating human mental activity, but it also comprises "utterances ontogenetically rooted in communicative speech" (p. 449). They suggest that people, whether L1 or L2 speakers, can construct meaning from a text after the reading process through conversing with others, and through self-dialogue. Furthermore, Lantolf (2003) alludes to Vygotskian theory in regard to second language acquisition, which views social interaction as an environment for knowledge construction. Lantolf takes Ohta's (2000) work to extend the discussion. Ohta (2000) conducted qualitative research with two university American students who were studying Japanese in the US to examine how native speakers or more capable 'experts' support 'novices', as well as how L2 learners collaborate with one another in the L2 classroom. In particular, her research focused on the interactional cues to which peers orient in order to provide developmentally appropriate assistance that was named "scaffolding" (Wood, Bruner, & Ross, 1976, p. 89). She analyzed the data from a cultural-historical perspective, since she had witnessed its successful application in many other studies of second language acquisition. The most important finding of the study is that the provision of developmentally appropriate aided performance is not only reliant upon what the peer interlocutor is able to do, but also upon the ability to gauge the partner's readiness for help in a developmentally sensitive manner, which is negotiated through subtle interactional cues. The study provides evidence of how classroom interaction promotes L2 development in the zone of proximal development[1]. The nature of effective 'scaffolding' in the ZPD varies based on a variety of factors, including the knowledge background of the helper, the nature of the task performance, the goals of the participants, and the developmental levels of the learners. In other words, the dialectical nature of ZPD is not based on either individual or collective principles, but on both, and includes 'experts' and 'novices'. ZPD exists in the social interaction between 'experts' and 'novice'. The interaction in the ZPD

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[1] The concept of Zone of proximal development will be further discussed in chapter 3. The concept of the ZPD was first introduced into the social science world by Vygotsky (1978) and is understood as "what the child is able to do in collaboration today he will be able to do independently tomorrow" by (Vygotsky, 1987d, p.211)

provides a platform for the transformation of the L2 from interpsychological to intrapsychological functioning to occur. Regarding the current study, children's interaction with parents and siblings in play activity, which creates the ZPD, was focused on as related to their bilingual heritage language development.

Much of the socio-culturally based research has focused on older second language learners and is generally founded on Vygotsky's theoretical perspectives on language development. Vygotskian cultural-historical theory holds that higher cognitive functions begin with the social plane or interpsychological plane, and subsequently transform to the intrapsychological plane through internalization (Vygotsky, 1997b, p.106). Higher mental functioning through social interaction is fundamentally mediated by cultural artifacts, activities and concepts, of which language is the primary and most important tool. Theoretically, the sociocultural context affects language development, including second language acquisition, as a social process. Watanabe (2008) adapted the cultural-historical framework in order to explore how adult ESL learners interacted with peers of different proficiency during pair problem-solving, and how they perceived the interactions with other peers in the study. The research data demonstrated that the pattern of interaction was co-constructed by both L2 learners in spite of their proficiency differences, and such social relationships, co-constructed by both L2 learners, affected the collaborative dialogue, and hence, the learners' language learning. Moreover, the research findings indicate that L2 learners can be viewed as 'agents interacting with other agents' (Lantolf & Pavlenko, 2001, p.156), from the cultural-historical perspective, by examining how the same learner interacts with peers of different proficiency levels. In regard to the present study, the interactions between the siblings with different proficiency levels in the home context were examined with a focus on social-affective dimensions of interaction.

Furthermore, Ohta (2001) conducted research on adult L2 learners (University students of Japanese as a foreign language) and found out these learners in the first two years of language classes helped each other with a variety of peer interactive tasks. In addition, in 2005, Ohta and her colleague, Foster, further considered that assistance, also referred to as scaffolding, is a characteristic of learner communication that they suggest promotes L2 development. They examined this viewpoint through two sets of research tools – the

cognitive and cultural-historical approach – and investigated the negotiation of meaning, looking at how second language adult learners engaged in an interactive task to support each other's learning of the target language. As a result of their findings, they suggest that social interactive processes are important from a cultural-historical perspective as an effective approach to building language skills and promoting language development within these processes. Interactional processes, including negotiation of meaning and various methods of peer assistance, as well as correction, are among the many ways learners access the target language.

Lantolf (2003), a proponent of cultural-historical research, believes that it has not been fully explored in regard to language learning and has not paid full attention to language as a tool for mediation. In Lantolf's view, using language helps to regulate the mental functions through private speech. Lantolf's studies have shown the similarities and differences in the language-focused private speech of children and adults. For example, in the classroom setting, adults seem to be less likely than children to engage in persistent imitation. Young children have different ways of learning language from adults (Lantolf, 2003).

To date, most research drawing on the cultural-historical framework has focused on the second language acquisition of school aged children and adults. However, despite recent research, some significant unresolved issues still exist, and need to be addressed. One such issue is failure to consider the process in which preschool-aged bilingual children develop heritage language. With regard to bilingual studies, many cultural-historical researchers focus on children's second language development rather than on bilingual heritage language development (development of the home language), despite the importance of heritage language learning to immigrant families in multicultural and multilinguistic countries. This present study addresses this concern so as to answer the main research question regarding the ways in which Chinese Australian families are involved in bilingual preschoolers' heritage language development. It focuses on preschool-aged children's Mandarin as heritage language development in Chinese-Australian families. Another issue is that not many cultural-historical researchers have taken into account bilingual children's heritage language as a cultural tool for mediating activities. Although Lantolf and Thorne (2007) state that people are able to use second

language to mediate mental activity, Frawley (1997) also points out that different languages offer their users different linguistic options to carry out mental activities. The present study draws upon cultural-historical theories to view how preschool children use heritage language to handle their mental activities with family support. It seeks to contribute to the literature which focuses on supporting parents to help their bilingual children's heritage language development in the family context.

2.4 Bilingual Studies from a Linguistic Perspective

A very popular field in formal linguistic theory and study of language acquisition is based on the work of Noam Chomsky. Some bilingual and second language researchers (White, 1989, 1996) also follow the Chomskian approach towards syntax to further develop this theory. Chomsky (1986) emphasizes that the body of linguistic knowledge is totally innate and humans have a common "universal grammar" (p.3). Chomsky (1975) states "the theory of language is simply that part of human psychology that is concerned with one particular 'mental organ', human language" (p.36). Language is seen as organic, a natural object growing in the human brain like the heart and lungs of human beings. Chomsky (1986) proposes that the proper subject matter of linguistics is not the utterance of the speaker, but this system of mental computation, which he calls "I (for individual and internal) language". The utterance for him is "E (external) language". I-language is the speaker's organic knowledge of language. For Chomsky (1988), "linguistics is the study of I-languages, and the basis for attaining this knowledge" (p.36). The I-language approach considers language as an internal property of the human mind rather than something external. In this view, as Reed (1995) put it, "the task of the language learner is not to learn the E (External) language he hears around him but rather to learn I language – the capacity to produce utterances in E-language, even utterances that one has not previously heard" (p.4). It can be seen that Chomsky ignores how children's language develops in the communicative community and children's active role in the communication.

However, Jones (2008) argues that language communication can only take place through the social interaction of natural material with linguistic meaning. A child's language acquisition only means the "process of creating with others this meaningful substance in

daily interactions" (p.86). In other words, for children, the fact that they are able to name, remember and categorise the objects is not the result of innate capability which already places existing meanings in some a priori "language of thought", but the result of the process of children's interaction with others through communicative language. In this psychological process, children verbalise their thinking (Jones, 2008). Thus, in this study, the communicative interaction between children and parents in their everyday life is focused on to understand children's language development, thus revealing the family pedagogy supporting children's bilingual heritage language development.

Several recent empirical studies on bilingualism have paid close attention to the issue of cross-linguistic interaction and transfer in preschool bilingual children (Cheung et al., 2010; Cummins, 2005; Nicoladis, Rose, & Foursha-Stevenson, 2010). These studies confirmed that heritage language proficiency can become a resource for learning a second language. Most importantly, the transfer from one language to another in bilinguals is considered in respect of the user's phonological awareness and morphological awareness (Cheung, et al., 2010).

For example, Nicoladis, Rose and Foursha-Stevenson investigated French-speaking and English-speaking bilingual children's thinking about speaking and concluded that "cross-linguistic transfer may occur only when there is some structural ambiguity and when both the available linguistic structures and the conceptualization in the target languages are similar" (p. 366). This is related to the cognate relationships across languages, such as English words derived from Latin and Greek sources bearing similarities to words in Romance languages from the same sources (Corson, 1997; Cummins, 2005). For example, Spanish-native speaking children may seek the lexical similarities between Spanish and English in some words when they are learning English. That is, the transferability of L1 and L2 relies on how similar the morphologies of the two languages are (Cheung, et al., 2010). However, as Cummins (2005) notes, not all heritage language have cognate relationships with English. Chinese and English are totally different linguistic systems with regard to morphological structure. "Whereas English verbs are governed by relatively stable inflectional rules, Chinese verbs are uninflected. Rather, Chinese relies more heavily on compounding than does English in word construction" (Cheung, et al., 2010,p. 369). This means that morphological

awareness between Chinese and English may not be as readily transferable, an argument also confirmed by Wang, Perfetti and Liu (2005). They point out that both English and French or English and Spanish can be compared as alphabetic languages sharing fundamental alphabetic principles, which can be transferred from one language to the others. However, Chinese and English have very different orthographic systems. Therefore, children "acquire one orthographic system independent of the other "(p. 83).

However, Liu and Vadeboncoeur (2010) hold another point of view on the relations between L1 and L2. First of all, they agree that there are some links between L1 and L2 and children's bilingual languages influence each other when they are acquired, but, using sociocultural theory, they criticise the notion of "transfer" between two different languages. They see translation or "transfer" as very limited metaphors for understanding bilingual language development. Furthermore, they confirm the dialectical relationships between L1 and L2. They believe that "concepts that are introduced in either L1 or L2 and begin as initially decontextualized meanings will take on the sense that is provided by their contexts of use over time" (p. 379). Children use their "L1 conceptual knowledge – meaning of the concepts – to make sense of relevant L2 input, and subsequently the L2 interacts with and exerts an influence on the L1" (Corson, 1997; Cummins, 2005, p.588; Valdes, 2005). It has been confirmed that the co-development of word meaning across two languages is a dialectical process of bilingual intertextuality.

In relation to bilingual heritage language development in practice, children do not have many opportunities to speak, read and write Chinese at a mainstream preschool or kindergarten level. Whilst empirical studies have investigated the effects of weekend heritage language school to children's heritage language learning (M. Li, 2005; Liao & Larke, 2008), little is revealed in such studies about the ways in which children's interactions and communication with adults contributes to heritage language development. These studies have ignored "the real conditions that determine the development of speech, specially, speech interaction" (Vygotsky, 1998e, p.270). In studying children's bilingual heritage language development, we must not ignore the situation of development and the situation of speech interaction in the home context. Furthermore, since research findings show that weekend school-based programs alone

are not enough in maintaining and developing children's heritage language across generations (Fishman, 1991), it is up to immigrant parents to take the responsibility for improving children's heritage language development and language practice within a home context, as their support becomes the main factor in children's heritage language development and maintenance (Hakuta & Pease-Alvarez, 1994; Lao, 2004). Thus, my research focuses on how parents and family members use home language communication to support preschoolers' heritage language development.

Researchers have increasingly opted for descriptive methods to analyse how children's parents contribute to their oral and literacy development in bilingual studies (G. Li, 2006; Ward & Franquiz, 2004). Rontu (2007) tested codeswitching in triadic conversational situations between a parent and a two bilingual siblings who are bilingual in Finnish and Swedish. The findings indicated that "it is important to understand the parent's role as the interlocutor when the child codeswitches" (p. 354). However, the research does not relate to how the parents support their preschooler's bilingual development during the everyday conversation. The present study focuses on this issue and investigates parents' beliefs and practices in regard to children's heritage language development.

To date, the research on heritage language maintenance amongst linguistic minorities in immigration countries is rich and diverse but focuses mostly on issues affecting language maintenance such as gender, age at immigration, and the psychological importance of the heritage language (Tannenbaum & Howie, 2002). However, regarding heritage language maintenance and development in young children, it is surprising how little attention has been paid to exploring the possible relation between parents' beliefs and the way they influence children's language development in practice. This present study begins this exploration by investigating the links between Chinese immigrant parents' beliefs and practices towards children's Mandarin development. Although a few researchers focus on the parents' role in language maintenance and parents' efforts at community language schools (Lao, 2004; Liao & Larke, 2008; Park & Sarkar, 2007), only a small amount of research has examined immigrant parents' beliefs and the resulting strategies and practices they employ in maintaining children's heritage language development.

Vygotsky's cultural-historical theories have also rarely been drawn upon to investigate children's heritage language development. This study applies some important concepts of Vygotsky's theory to analyse parents' beliefs and practices and identify how they function to improve children's heritage language development.

2.5 Chapter Summary

As discussed in this chapter, language learning is deeply embedded in the social fabric of schools and homes. Chinese weekend schools' educational success depends on a complex combination of strategies used at home and at school (G. Li, 2007). Thus, it is most significant to explore Chinese-immigrant family's involvement in the development of their preschoolers' Mandarin as a heritage language. This chapter reviewed the literature on family involvement in bilingual education, bilingual development in play contexts and everyday life and bilingual studies in early childhood education. The chapter has sought to show why this study needs to be conducted and how the findings of this current study will fill the gap and provide necessary and important insights into immigrant families in Australia as a multilinguistic global context. The next chapter will focus on Vygotsky's cultural-historical theoretical concepts upon which this study has drawn.

Chapter 3

Cultural-Historical Theoretical Framework

Whatever the form of social interaction, such will be the nature of generalization. Social interaction and generalization are internally connected. (Vygotsky, 1982, p.166)

3.1 Introduction

The previous chapter critically reviews the contemporary literatures in children's language development and family studies. Past research has suggested a number of potential reasons as to why family involvement is important to children's bilingual heritage language development, though research investigating these is lacking. These suggestions can be taken forward as the basis for this study. This chapter focuses on how Vygotsky's cultural-historical concepts serve as the theoretical foundation orienting this study.

3.2 An Overview of Vygotsky's Cultural Historical Theoretical Contribution

More than seventy years ago in Russia, the psychologist Lev S. Vygotsky (1896-1934) created the cultural-historical theory of the development of higher psychological functions. Concerning cognitive development, Vygotsky particularly focused on the inter-relationship between language development and thought. His work is based on the application of the Marxist dialectical historical material approach, which focuses on the historical, cultural and social roots of cognition development, asserting that a person's development must be effective within the cultural-historical environment through the establishment and maintenance of the ZPD (Levykh, 2008).

Three major phases in the development of Vygotsky's ideas can be identified (Vygotsky, 1987d). Between 1925 and 1930 Vygotsky argued that the "instrumental act", the basic unit of the higher mental functions, is to control behaviours within a historical context.

This is developed by the transmission from one generation to the next via social interaction and internalization. Speech or language is the key psychological tool for social interaction and communication, which allows the individual to participate in particular cultural groups (Minick, 1987). In other words, language is the main psychological tool that is utilized in child-adult or peer-peer social interactions as a means of communication. Gradually, speech and language are internalized and become thought, which in turn progressively control the child's own behaviours. From 1930 to 1932 Vygotsky advanced towards the second phase. His research focused on the changes in inter-functional relationships and the emergence and development of the analytic units called "psychological systems" (Minick, 1987). Vygotsky analysed the relationship between thought and speech by focusing on the development of verbal thought, particularly word meaning. Between 1933 and 1934 Vygotsky developed the "explanatory framework" within the social interaction and sign systems for the third development phase of his cultural-historical theory (Minick, 1987). Vygotsky argued that the development of word meaning is produced by mediating specific types of social interaction and communication through social practice. He also emphasised the development of play activities as a psychological phenomenon, which helps create the social situations that foster the development of the child. During this period Vygotsky (1987) created his most significant work concerning the concept of the "zone of proximal development" (ZPD, p.209). The ZPD connects "a general psychological perspective on child development with a pedagogical perspective on instruction" (Hedegaard, 2005, p. 223). Cognitive development relies on the ZPD, which signifies the potential level of development reached when a child participates in a social activity. As a pedagogical strategy, the ZPD provides a platform for the child's ongoing development.

It can be seen from the above that Vygotsky's cultural-historical theory has been continually developed based on psychological analysis and social practice. In Vygotsky's work, he clarifies the idea that higher mental functioning begins with the "interpsychological" (i.e. social) plane and then progresses to the "intrapsychological" (i.e. individual) plane via social interaction (Wertsch, 2008). It argues that the

enhancement of higher mental functions is based on social interaction and communication through psychological tools, specifically language.

3.3 Higher Mental Function Development

Vygotsky (1997f) compares the differences between humans and animals, and identifies consciousness and thinking as being characteristic of human beings. He further argues that the dynamic developmental process of psychological functions results from the individual's interactions in the social and cultural context, which is the fundamental difference between human beings and animals (Minick, 1987). Vygotsky (1981, p.163) states that in the "general genetic law of genetic development", the enhancement of children's higher mental functions is based on social interaction and communication with adults or peers using psychological tools, specifically speech or language. Vygotsky's formation of the general genetic law of cultural development is as follows;

> Any function in the child's cultural development appears twice, or on two planes. First it appears on the social plane, and then, on the psychological plane; First it appears between people as an interpsychological category, and then within the child as an intrapsychological category. This is equally true with regard to voluntary attention, logical memory, the formation of concepts, and the development of volition. (Vygotsky, 1981, p.163)

Vygotsky clarifies the idea that higher mental functions begin with the "inter-psychological" category, then progress to the individual "intra-psychological" category via social interaction. As Vygotsky writes "every higher mental function ... was formerly a social relation of two people" (Vygotsky, 1997b, p.105). That is, social relations and interactions are not merely conditions for development, but rather the body of the interpsychic function, which can exist only when the intentions of the parties involved are harmonised (Zuckerman, 2007). This demonstrates the social genesis of higher mental functions. A social relation appears as a category such as one "emotionally colored and experiencing collision", the contradiction between the two people, and "drama between two individuals" in the dramatic event (Veresov, 2004, p. 19). It is clear that the interpsychological category means the contradictory collisions of characters in

social relations. Higher mental functions first experience the dramatic (emotionally and mentally) social plane, which later becomes the individual plane in a dramatic developmental event. Thus, bilingual heritage language development originally experiences the dramatic social family event in the relations between children and parents, and afterwards appears as an individual category in the same event.

The development of the child is a complex dialectical process. It initially begins as a social form of interaction, and later the social relation is transferred to the internal, intra-psychological functions. This constitutes the dynamic process of change from an intermental to an intramental function. In this process, children develop through collective activities and through their active relationships with adults of varying levels of skills, knowledge, and ability (Holzman, 2009). The 'transfer' of higher mental functions experienced in the social plane to the individual plane indicates that the child has advanced from collaborative activity with adults to individual (internalized) behaviour. The Vygotskian (1987a) perspective that children's development is in essence a social process, rather than an individual phenomenon, helps to explain why cultural-historical theory is useful for this study.

However, higher mental functions can only be created when the intentions of the child and the adult are interrelated through psychological tools or signs that act as mediators. In order to understand the higher mental functions of the child, the concept of mediation should first be explained.

3.4 Mediation

Veresov (2010) argues that "mediation is essential: every higher mental function is a mediated function" (p.86). Mediation is a central theme of cultural historical philosophy. Vygotsky places great emphasis on the nature of mediation and social interaction in his works. From Vygotsky's perspective, human mental functions are traditionally associated with the use of tools, especially "psychological tools" or "signs" (see, e.g.,Wertsch, 2007), which differentiates humans from animals (Vygotsky, 1997f). Signs serve as mediators of human mental functions. A sign can also be considered as "the actual carrier of human culture, as a means for the cultural (or social) determination of

individual activity and the individual consciousness", which plays an essential role in the process of higher mental function development (Davydov, 2008a, p.180). How, then, do signs serve as psychological tools in mediating human mental processes? To answer this question, it is necessary to examine Vygotsky's notion of signs.

3.4.1 Signs (psychological tools) mediating the development of the child.

Vygotsky investigates the use of tools and signs in human development, and argues that human beings master themselves and develop higher mental functions through contact with their external socio-cultural environment (Daniels, 2008, p.9). For the individual, the tool is a means for relations between an object and person. However, the sign is "primarily a social means, a kind of 'psychological tool'" (Vygotsky, 1997d, p.85), and a mediator of social relationships (Davydov, 2008a, p. 180). Thus, tools and signs have, of necessity, the characteristics of external activity, which assist humans in the development of each of the higher mental functions.

Exploring Stern's theory of speech development, when defining "signs", Vygotsky (1987c) states that "signs have their natural roots and transitional forms in more primitive modes of behavior, in what is referred to as the illusory significance of objects in play and, still earlier, in the indicative gesture" (p. 95). The sign is determined by the complex process of development and results from development (Veresov, 2010, p.86). Vygotsky (1997f) identifies the origins and functions of signs as "every conditioned stimulus created artificially by man that is a means of mastering behavior – that of another or one's own" (p. 54). Dialectically, the operation of using a sign initially in external activity has the character of an external auxiliary stimulus, and later enters the individual sphere of behaviour (Vygotsky, 1999b). With the aid of these artificial stimuli-devices, or signs, human beings are able to determine their behaviours. How does this happen? Consider this example of a young child using their fingers to count. Fingers act as a sign to aid in solving counting tasks. The child introduces auxiliary stimuli, and with the aid of these stimuli-devices, he solves the problem in front of him. This confirms that human beings can shape their own behaviour through the aid of stimuli (signs) (Vygotsky, 1997f, p.52). Because of the social nature of human beings, in the process of social life they can create signs as artificial stimuli to affect behavior and

regulate the development of connections in the human brain. Meanwhile, "the means of social contact [signs] are thus also basic means for the formation of the complex psychological links that emerge when these functions become individual functions and grow into a personal style of behavior" (Vygotsky, 1997d, p.96).

In order to clarify the difference between signs and tools, Vygotsky (1997f) identifies that "the invention and use of signs as auxiliary devices for solving any psychological problem confronting man (to remember, to compare something, communicate, select, etc.) is, from *the psychological aspect, at one point analogous* to the invention and use of tools" (p. 60). In this sense, the tool in a psychological operation is instrumental to the function of the sign, and the function as a stimulus-device that is carried out by the sign is a tool of human activity. The assumption could be made that tools and signs can be interrelated. However, it is necessary to see them as being separate functions to human development.

In further elaboration, Vygotsky (1997f) borrows Hegel's concept of mediation to explain the basis for the analogy between the sign and the tool for child development and mediation (See Figure 3.1).
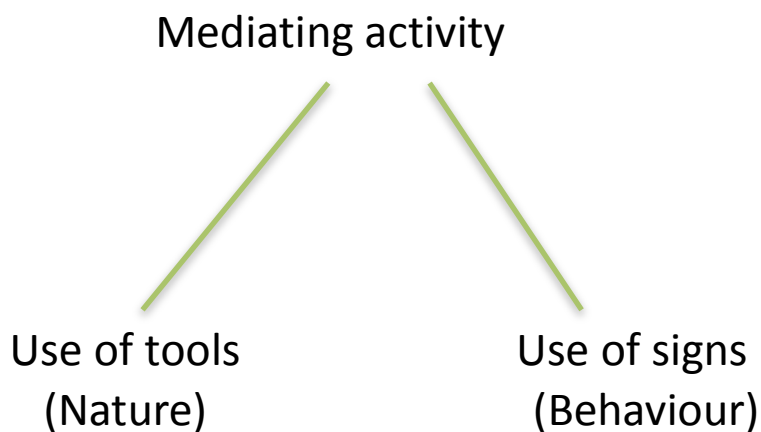
Figure 3.1. **Mediating activity (Adapted from Vygotsky, 1997f, p.62).**

This figure presents Vygotsky's (1997f) understanding of the logical relations of two concepts in relation to mediating activity and identifies the difference between tools and signs within the mediating activity. On the one hand, the use of signs should be

classified as a mediating activity because human beings regulate behaviour through signs, that is, *stimuli,* in terms of their psychological social nature. On the other hand, tools are devices of work, devices for mastering the processes of nature. In addition, in developing the theory of cognition defined by John Dewey, which suggests language is a tool, and further considering that speech is a "moving material" like a tool, identified by Kapp, Vygotsky (1997f) emphasizes language as a psychological tool for social interaction and communication. In conclusion, according to Vygotsky, the tool applies human manipulation on the object of the activity. The tool is directed outwards, as a means to apply human activity on external objects in order to alter them; it is called a *material tool*. On the other hand, a sign is a means of applying psychological action on behaviour, showing the relations between people or objects. It is directed inwards, an internal activity directed toward mastering oneself. It is considered a *psychological tool*. According to Vygotsky's concept of tools and signs, Kozulin (1988) clarifies that

> the concept of a psychological tool appeared first by loose analogy with the material tool that serves as a mediator between human hand and the object of action... Whereas material tools are aimed at the control of the processes in nature, psychological tools help the individual to master his/her own behavioral and cognitive processes (p.83).

In other words, material tools serve as conductors for humans' influence on the objects of their activity in relation to the external world, while psychological tools mediate humans' own psychological processes and influence humans' behavior in association with internal activity (Robbins, 2001; Wertsch, 1985b). However, how can psychological tools by themselves automatically mediate human mental processes? Karpov (2005) analyses Leont'ev's study in 1931 on mediated memory in children and adults in order to provide insight. In Leont'ev's study, seven to twelve-year-old children were able to use cards with different pictures as memory aids to memorize and recall a list of words that was given to them. Here, Vygotsky would argue that the cards with pictures act as auxiliary stimuli devices for children to memorize the list of words. Children could recall the list words because they were able to find the logical link between the word to be memorized and the selected card. Hence, the action of using the

cards, but not the cards themselves, served the role of the psychological tool that mediated the children's memory and recall (Karpov, 2005). This echoes Vygotsky's argument that the invention and use of signs (psychological tools) serves "as auxiliary devices for solving any psychological problem confronting man (to remember, to compare something, communicate, select, etc.)" (p. 60). In terms of the current study, there is an interest in exploring how immigrant parents support preschoolers' bilingual heritage language development in the home context. The procedure for the use of psychological tools (storybooks, language, concepts, etc.) must serve children's language development. Therefore, encouraging children to use psychological tools is the basic action toward establishing higher mental processes (language development, memorizing the vocabulary, internalizing the grammar in use). From a Vygotskian perspective, mediation is considered as "the determinant of child development" (Karpov, 2005, p.20). Children can be enabled to master the use of psychological tools only in the context of their shared activity with adults' assistance in performing an associated task (Karpov, 2005). It can be argued that parents guide and mediate children's mastery and internalization of the procedure through modeling, explanations and exploration. Thus, when parents participate in shared home activities they act as mediators to help children master the procedure of using psychological tools. Consequently, the internalized procedure also becomes a mediator, acting to serve the development of the child's bilingual language development. Alex Kozulin (2003) provides insight into the function of mediators in the development of children's higher mental function.

When using a Vygotskian approach, one can infer that the key to the development of the child's higher mental processes lies in the presence of mediating agents in the children's interaction with the environment (Kozulin, 2003). There are two main approaches, focusing on human mediators and symbolic mediators. From a human mediator approach, the key focus is the social interaction between adult and child; particularly what kind of adult involvement is effective in developing the child's behaviours (Kozulin, 2003). From a symbolic mediator approach, the interaction is mediated by psychological (symbolic) tools. This approach focuses on the changes in the child's performance that can be brought about by the introduction of symbolic tools, mediators (Kozulin, 2003, p. 19). As the purpose of this research is to explicate the role of family

child rearing practices in children's Mandarin as bilingual heritage language development, the notion of mediation in cultural-historical theory must become the theoretical orientation for the current study. Using these perspectives, human mediators are seen as playing a major role, though symbolic mediation is also likely a determinant of child development. The human mediators and psychological tools mediate and determine the dynamic transformation process of children's development, which is shown in Figure 3.2.
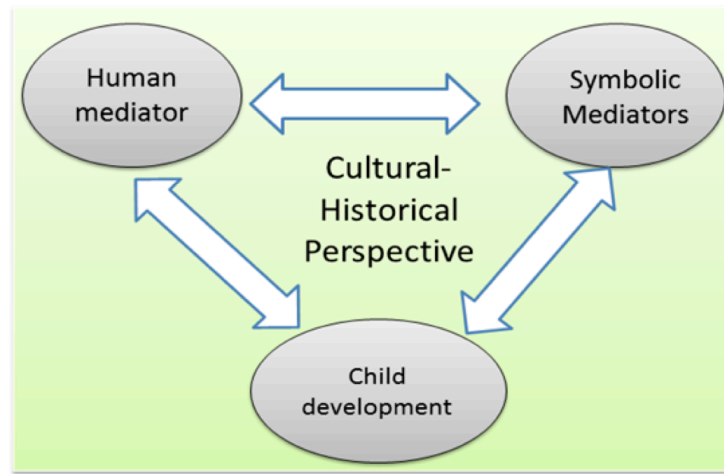
Figure 3.2. **The dynamic transformation process of child development.**

3.4.2 Adults' mediation.

According to Vygotsky, cognitive development for children concerns the process of the transition from the interpersonal (i.e. social) to the intrapersonal plane (i.e. individual). How the transition from interpsychological to intrapsychological functioning occurs can be understood only by tracing it back to its roots in mediation. With regard to this research about family involvement, parental mediation must be taken into account. Children's behaviour and learning is guided by the knowledge and instruction from their parents in the task setting, which can be seen as the social plane of psychological functioning. After mastering certain strategies under the guidance of parents, children gradually develop their own guidance and control, which can be seen as the individual plane of psychological functioning.

Kozulin (2003) discusses Portes' (1991) parental mediation studies and concludes that "not every type of parent-child interaction has a mediation effect" (p. 22). An important consideration regarding guidance is that not all forms of parents' meta-cognitive guidance in problem-solving tasks function effectively. Wertsch's *puzzle copy* studies suggest that the different types of parental guidance might have different consequences for children's intrapsychological functioning (Stein & Yussen, 1985). Wertsch (1985a) examines the interpsychological and intrapsychological functions of a two-and-a-half-year-old girl "copying" the way of doing a puzzle that her mother "modeled". As a result of the examination, Wertsch found that adults can manage interpsychological functioning that permits them to regulate children's strategic activity and children's understanding of tasks. Furthermore, Wertsch introduces the idea of a referential perspective in relation to interpsychological function within a task setting. He notes that a "referential perspective involved in an act of referring is the perspective or viewpoint utilized by the speaker in order to identify an intended referent" (Wertsch, 1985, p. 74). According to Wertsch's social interaction study, referential perspectives in adult-child interaction in a task setting may help make it possible for adults to provide strategic assistance at a variety of levels (Wertsch, 1985).

A different strategy for understanding mediation is offered by Kravtsova (2009; 2008), who uses the subject positioning theory to elucidate upon the nature of communication between adults and children within children's zone of proximal development. This will be discussed in the next section. From the cultural-historical perspective, Moll (1990) concludes that humans use cultural signs (language, literacy, codes, toys) to mediate their interactions with each other and their surroundings. It is the zone of proximal development (ZPD) that reflects the role and dynamic process of mediation in the development of higher level functions in cultural-historical theories (Wertsch, 2008). Moreover, mediation is considered as an instrumental agent in creating the ZPD for mental processes (Karpov, 2005). Thus, mediation acts dialectically to both influence and be influenced by the ZPD.

3.5 The Zone of Proximal Development (ZPD)

The present study is framed by cultural-historical theory to explore Chinese immigrant parents' beliefs and practices in relation to preschoolers' development of Mandarin as the heritage language in children's bilingual development. In order to explain the social roots of higher mental functions, Vygotsky developed his well-known concept of the Zone of Proximal Development (ZPD), which asserts that a person's development must be effected within a cultural-historical environment, as noted by the establishment and maintenance of the ZPD (Levykh, 2008).

The concept of the ZPD was first introduced into the social science world by Vygotsky (1978) and is understood as meaning "what the child is able to do in collaboration today he will be able to do independently tomorrow" (Vygotsky, 1987d, p. 211). Vygotsky particularly discusses how the ZPD works for young children and for children with special needs. Holzman (2009) further examines Vygotsky's notion of the ZPD and considers the ZPD as a "collective form of working together" and a "dialectical, tool-and-result activity" in that it requires "relating to people as capable of doing what they do not yet know how to do and what is, therefore, beyond them" (p. 30). Linking that to this study, the ZPD reflects two aspects. On the one hand, the ZPD is the zone of collective activity in which children and adults interact and share their understandings of tasks by using cultural tools such as language. On the other hand, the developmental process for children occurs when children interact with adults or other more capable peers within their ZPD. As Davydov (2008c) emphasises, Vygotsky introduced the concept of the ZPD to psychological science in order to "express the interlink between instruction and development" (p. 40). This is the reason why the concept of the ZPD is very important to a child's development and adults' instruction. Vygotsky discusses the crises, the contradictions or conflicts from the point of view of the ZPD in children's development.

3.5.1 ZPD and contradiction/ conflicts.

The child's ZPD also reminds us that children's development is in response to a conflict or contradiction between what children can do and what they are motivated to do, or

what others (parents/adults) demand them to do. Within children's ZPD, not only the adult provides the assistance to the child's development, but also the child has their self-awareness of their possibilities and interpretation of the situational practices. In relation to children's development, Vygotsky (1998c) evaluates this critical time from the point of view of ZPD, as the conflicts "between internal possibilities and external needs" that occur within the ZPD spearhead development (Schneuwly, 1994, p.289). Vygotsky (1998a) also argues that "each age period has a characteristic central *new-formation* in relation to which psychological functions develop" and clarifies that the process of mental development is "more or less directly connected with the basic neoformation we call *central lines of development* at the given age and all other partial processes and changes occurring at the given age, we shall call *peripheral lines of development*" (p. 197). The central lines of development at one age become the peripheral lines at the next age; the peripheral lines of development come to the forefront and become the central lines at another age as the relations of the child to the world around him [her] changes and the consciousness of the child to the surrounding world changes. It can be seen that the whole structure of mental development becomes a dynamic psychological process, in which the conflicts within peripheral lines of development or crises within the central lines of development become key to child development. Chaiklin (2003) further states that within each age period,

> This new-formation is organised in the social situation of development by a basic contradiction between the child's current capabilities (as manifested in the actually developed psychological functions), the child's needs and desires, and the demands and possibilities of the environment. In trying to overcome this contradiction (so that it can realize its activity), the child engages in different concrete tasks and specific interactions, which can result in the formation of new functions or the enrichment of existing functions. (Chaiklin, 2003, p. 47)

In other words, the new-formation functions are shaped as a result of the child's interactions with others in tasks or activities, in order to deal with the contradiction between what he/she can do independently (matured psychological functions) and what he/she can do collectively (maturing psychological functions), the child's motives, and

the requirements of their environment. Essentially, the conflict/contradiction is rooted in the relations of the child to others and the environment, which echoes Vygotsky's argument that higher mental functions begin in the interpsychological category of social relations between people (Section 3.2). At the centre of each crisis, the child's internal understanding of the experience undergoes a reconstruction. This reconstruction is determined by a change in the child's motivation and needs, which regulates the child's behaviour and shapes their relation with the environment (Vygotsky, 1998b). As noted by Hedegaard (2009), a crisis is connected with a child's development, which contributes to the formation of new functions through the interactions of the child with others within social situations and within institutional (e.g. schools or family) practices. Fleer (2010), inspired by Vygotsky (1998g) and Hedegaard (2009), discusses an example of meal time in a family and at school to identify how "the different demands, expectations, and activities that a child experiences across these institutions shape their motives and create new possibilities for development" within their ZPD (p.197). Therefore, in researching children's bilingual heritage language development, the conflicts between the child's motives and family demands need to be taken into account. As discussed before, the social relations between parents and child determine children's higher mental function development. Therefore, the child's development is also directed by whether the communication between parent and child meet the child's needs and parent's demands. How to deal with conflicts and support children in making a quality change in their development requires a wealth of understanding of children's ZPD.

3.5.2 Adults' instruction and children's imitation within the ZPD.

The concept of the ZPD is used and discussed in a number of cultural-historical research studies and various understandings of the concept are contemplated in contemporary psychological-pedagogical literature (Chaiklin, 2003; Davydov, 2008c; Hedegaard, 2005; Holzman, 2009; Kravtsova, 2009; Lee, 2005). The main focus of the research is the problem of the relationship between possibilities of instruction and the child's process of development. First of all, it needs to be made clear that Vygotsky's focus on the ZPD is not related to all kinds of learning, but to the child's full development from instruction, looking at the maturing developmental functions (Chaiklin, 2003; Kravtsova, 2009). In other words, it is very important to ascertain the maturing psychological functions that

46

result from particular forms of instruction that make up the zone of proximal development (Vygotsky, 1998g).

Furthermore, with regard to the understanding of the ZPD, Chaiklin (2003) critiques Gillen's (2000) view that the notion of the ZPD is meaningful when an adult or more capable peer influences a child directly or indirectly. Chaiklin emphasizes that the importance of the ZPD is not the competence of the more capable person, but to "understand the meaning of that assistance" in relation to a child's development (p. 43). It reiterates Vygotsky's (1987d) statement regarding the ZPD, which is "with collaboration, direction, or some kind of help the child is always able to do more and solve more difficult tasks that he [sic] can independently" (p. 209). Vygotsky views thinking and its development as a dynamic process not only for the child but of the child within shared interactive activities with others (Moll, 1990). With regard to language development, Vygotsky specifically emphasizes the relationship between language and thought through mediation/instruction within the child's ZPD. That is why the notion of the ZPD frames this study and provides a unit of analysis that focuses on dynamic transformation from the social to the individual plane.

How does the child make the quality change from the ZPD to actual development? That is, why does this transition occur? There are two main points. First, in relation to instruction, the ZPD must be noticed. The process of teaching must be completed in the form of children's collaboration with adults. That is, the instruction depends on the immature, but maturing processes that are determined by the ZPD of the child. Second, the ZPD moves towards the level of actual development, which is related to the dynamic process of development (Vygotsky, 1987d). Instruction has productive functions only when it occurs in the ZPD. Vygotsky reminds us that "the potentials for instruction are determined by the zone of proximal development" (Vygotsky, 1987d, p.211). Thus, instruction must be based on the clear understanding of a child's current level of development (Chaiklin, 2003). Indeed, Vygotsky uses the zones to emphasize the importance of instruction or social relations in understanding development (Karpov, 2005).

A central feature for the psychological study of instruction is the analysis of the child's potential to raise himself to a higher intellectual level of development through collaboration, to move from what he has to what he does not have through imitation. This is the significance of instruction for development. (Vygotsky, 1987d, p. 210)

Here, imitation does not mean simply copying actions or words like a parrot does, but "an active, creative and fundamentally social process that is essential to creating the ZPD" (Holzman, 2009, p. 30). This means imitating what is beyond them in their relationships with others. The important aspect of play is that the players are intent to imitate adults' social models within cultural events. In other words, the players reinterpret real life situations and act out the roles in play by creating new knowledge and imitating the adult model. Furthermore, Chaiklin (2003) describes that "a person's ability to imitate...is the basis for a subjective zone of proximal development" (p. 83). This means that imitation reveals "some possibility of moving from what I can do to what I cannot do" (Vygotsky, 1987d, p. 209). Additionally, imitation exists because the mentally functioning level of development of the child is still not enough for him or her to perform independently, yet is sufficient enough for him/her to understand how to use others' assistance and directions to support his/her own performance. Aided by imitation, the child cannot do things independently but is able to do so in collaboration with adults or with more knowledgeable peers. Holzman (2009) concludes that imitation is a creative process, a type of performance, relating to Vygotsky's analysis of language development in the ZPD. In terms of language learning, this performance is "a way of taking who we are and creating something new – in this case a newly emerging speaker, on the stage a newly emerging character – through incorporating the other" (p.31). The development of speech is connected to transforming the context of a relationship.

Most importantly, the collaborative intervention relies on maturing psychological functions only under the assumption that "the child could only take advantage of these interventions because the maturing function supports an ability to understand the significance of the support being offered" (Chaiklin, 2003, p.54). In other words, imitation and collaboration become an assessment of the developmental level and ZPD.

48

El'konin (1978) explores the functions of imitation in role play in children's development. Children have the intentional motive to act as adults, so the roles and actions children imitate in play are those of adults. They learn to regulate their actions so as to meet the norms associated with the role models provided, thus practising planning, self-monitoring, problem-solving and reflection, which are essential for intentional behaviours (El'konin, 1978; as cited in Bodrova & Leong, 2003). Thus, from a cultural historical perspective, imitation is interpreted as "learners' creative actions toward the model form in the dialectical way" (Kinginger, 2002, p.245). As a result of imitation and adults' support, children are able to understand the chosen model, transmit knowledge through social interaction, and internalise their understanding of the assistance and language provided. What is more, adults' instruction and the child's imitation within children's ZPD also echoes Vygotsky's fundamental concept of higher mental psychological processes: the "interpsychological" and "intrapsychological" category, which has been discussed in Section 3.2 (Higher mental function development). The child as an individual initially engages in immediate social interaction with adults' instruction within some collective activity by using various materials and semiotic tools, and this forms interpsychological processes; then the way of using the materials and tools transforms into the child's internal/intrapsychological processes through children's imitation (Davydov, 2008c).

In the process of providing support, the adult, once having gauged the child's ZPD, needs to decide what type of assisted performance would be most beneficial for him/her at that point (Henderson, Many, Wellborn, & Ward, 2002). It would help to answer the question of whether teaching leads development. The ZPD of the child is described as the kinds of help that, to a greater or lesser degree, assist the child in resolving difficulties (Zuckerman, 2007). The amount of help children need is oriented to the size of the ZPD (developmental level), which refers to the extent of the collaboration procedure and the form of communication. That is, children who are identified as having a 'larger' ZPD take advantage of the lower stage of communication. Thus, in order to make adult help truly effective, Kravtsova (2009) proposes to divide adult's participation into different functions in a collective activity, which is associated with the size of the ZPD. Based on her research practice, Kravtsova diagrammatically

represented the "logic positions" adults create for children as the "greater we," the "above" position, the "under" position, the "equal" position, and the "independent" position (p.23). Kravtsova further states that

> The study of children with learning problems has shown that they have a smaller zone of proximal development than their peers. Furthermore, for the most part they are able to master only the next stage of personality development with the help of an adult, and even this proximal prospect can be assimilated only when an adult helps them from the "under" or "greater we" position, while their peers who learn more easily can realize not only the following position, but also more difficult personality positions and can do so in an "independent" position with an adult or an "equal" position. (Kravtsova, 2009, p.23)

In other words, when the child has a 'smaller' ZPD than their peers in the dramatic event, an adult can help him/her only from the "under" or "greater we" position, so the child is in the "above" or "independent" position. Likewise, when the child has a 'larger' ZPD than their peers in the dramatic event, an adult may help him/her in the position of "independent" or "equal", then the child is in the "greater we" or "equal" position automatically. In other words, the position of the adult is dialectically related to the positioning of children. This is shown in Figure 3.3 below, Communication between adult and child within the child's ZPD

The logic positions adults create are determined by the scope of children's ZPD, and the position of children is inversely related to adults' positions. In reference to pedagogical strategies, although Kravtsova's subject positioning theory focuses on adults' instruction towards groups of children in a collective activity, it was developed through the analysis of family strategies in Russia. It still orients immigrant family pedagogy in Australia when parents engage in preschoolers' practices to enhance their bilingual heritage language development. How the subject positioning strategies may be best used is determined by the child's limitations of knowledge and developmental level in the activity. Thus, to a certain extent, adults involve and guide the child in mastering the psychological tools for children's mental processes, and the way they do this depends on the position the child has been placed in within the mediation. Wertsch (1993) argues that for the mediated action the "social languages and speech genres and the dialogical processes by which they are appropriated almost guarantee the centrality of the relationship between psychological process and sociocultural setting" (p. 122). As a result, the adult's strategic assistance improves children's independent functioning, contributing to the transition from the interpsychological to intrapsychological plane. This kind of adult-child interaction reflects the power of Vygotsky's (1981) statement, "all higher mental functions are internalized social relationships" (p. 146). Regarding this current study, how parents communicate and interact with their children shapes the form of the mediated action, which in turn influences children's higher mental

51

functioning and language development. Hence, social interactions between parents and children need to be explored in this cultural-historical study.

It is important to understand that changes take place within the ZPD after adults' instruction, and these are often characterized as individual changes, in that the skills that can be developed with the assistance of capable collaborators exceeds what can be achieved alone. Moll (1990) further considers the focus of change within the ZPD to be on the appropriation and mastery of mediational means, such as telling a story, "not only through independent performance after guided practice but by the ability of children to participate in qualitatively new collaborative activities" (p. 13). Here, the role of the adult is to mediate/instruct children's actions by asking questions or offering a useful hint through exploratory or explanatory talk, rather than only providing structured cues in order to move towards their actual development (Moll, 1990). This also reflects Vygotsky's notion of instruction for development. Longstanding work by Bruner (1975) named this kind of mediation scaffolding.

3.5.3 Scaffolding and the ZPD.

Scaffolding was first described as how parents provide their young children with instinctive instruction to learn a language. The instructional scaffolding is offered by the adult or more capable peers, and supports a child or novice to move from their ZPD to actual development, which is similar to the way scaffolding supports a builder while working on the next floor above. Wood, Bruner, and Ross (1976) used the idea of scaffolding in accordance with Vygotsky's work to explain children's learning process. They believed that scaffolding represents the supportive interactions between an adult and child that enable "a child or novice to solve a problem, carry out a task or achieve a goal which would be beyond his unassisted efforts" (p.90). When the child increases their understanding and feels comfortable with new concepts, the assistance will be decreased. Eventually, the adult needs to remove the scaffolding and "hand over" responsibility for the performance to the child (Bodrova & Leong, 1998, p.5). At this point, children's development moves from other-regulation to self-regulation.

3.5.4 Self-regulation and private speech.

Self-regulation, also called independent strategic functioning, means that the child has control over his or her own behaviour without any help (Lantolf & Appel, 1994b). The transition from other-regulation to self-regulation occurs in the ZPD, where the child and the adult engage in the dialogic process – a process in which the child is guided by adults' scaffolding and instructed by the adult through their communication and interaction. As a result, the child is able to take over the responsibilities for regulating his/her own behaviours without any strategic assistance from the adult. Meanwhile, higher psychological processes have taken place, where the shift from the interpsychological plane to the intrapsychological plane is completed in the problem-solving activities.

Wertsch's (2008) *puzzle copy* studies theorize about the origins of self-regulation. In adult-child interaction, where adults provide the 'other-regulation' to scaffold the child to be able to carry out a task, the child can develop self-regulative abilities in a communicative setting. The child's speech in the self-regulatory function is social (Lantolf & Appel, 1994b). This is based on the understanding of Vygotsky's theory of the functions of private speech, which will be further discussed in the next section. Private speech is a kind of self-talk, self-guidance, self-direction and self-regulation of behaviours (Vygotsky, 1987e). It is a necessary step in the transition from assisted to individual functioning (Bodrova & Leong, 1998). Vygotsky maintains that scaffolding facilitates this function by encouraging children to use private speech to guide their own thoughts and behaviours (Berk & Winsler, 1995).

From the above discussion, one can surmise that language is not only for communication with others, but is also a tool of the mind or a tool of thinking that can be a means to guide one's own actions (Vygotsky, 1978). Children develop their language and cognitive skills by engaging within the context of social communication, which then prompts them to begin to guide their behaviours verbally. Moreover, private speech is internalized to form inner verbal thinking (Berk & Winsler, 1995). The transformation of the regulatory role from others to the self is a process through private speech in which children direct their thought processes and behaviour during cognitive developmental

activities. In conclusion, children use private speech as a tool for self-regulation to guide their thoughts and actions during the process of internalizing language.

3.6 Internalization and Private Speech

Internalization is considered as being one of the core concepts of Vygotsky's cultural-historical theory. Internalization refers to "the subject's ability to perform a certain action (concrete or ideal) without the immediately present problem situation 'in the mind'" (Stetesenko, 1999, p.245). Internalization is the process of human mental development. As Davydov (2008c) explains Vygotsky's concept of internalization,

> It is precisely in this transition from external, unfolded, collective forms of activity to internal, folded-up, individual forms of activity-i.e. in the process of internalization, in the transformation of the interpsychical into the intrapsychical-that a person's psychical development is realized. (Davydov, 2008c, p.41)

Internalization is also linked to *self-regulation*, whereby through the transition from other-regulation ("Interpsychical") to self-regulation ("Intrapsychical"), the individual is able to internalize the use of new psychological tools (language) and develop new linguistic resources that can be used to mediate mental and social activity (Lantolf & Thorne, 2006). After achieving certain strategies under adults' other-regulation/instruction, children may gradually move to self-regulation and control their own behaviour, having internalized some representation of the strategies (Stein & Yussen, 1985).

Internalization is manifested by the "abbreviation of interactive social speech into audible speech to oneself, or private speech and ultimately silent speech for oneself, or inner speech. Social dialogue condenses into a private dialogue for thinking" (Frawley, 1997, p.95). Vygotsky identifies the nature of private speech and how human cognitive development proceeds.

> The earliest speech of [the] child is ... essentially social. At first it is global and multifunctional; later its functions become differentiated. At a certain age the

social speech of the child is quite sharply divided into egocentric speech and communicative speech...Egocentric speech, splintered off from general social speech, in time leads to inner speech, which serves both autistic and logical thinking. (Vygotsky, 1986, p. 231)

Private speech represents a transitional stage from social to inner speech and a functional differentiation in the speech of a child (Minick, 1987). And inner speech represents "an internal plane of verbal thinking which mediates the dynamic relationship between thought and word" (Vygotsky, 1987e, p. 279). The 'I-You' conversation (social speech or external speech) of social interaction becomes an 'I-Me' (egocentric speech or private speech) in which 'I' makes choices of what to talk about and 'Me' interprets and critiques these choices, with the latter becoming verbal thought, or inner speech (Lantolf & Thorne, 2006). It can be seen that private speech does not disappear and becomes a mediating link between external and inner speech. In this transition from intermental to intramental functions, children appropriate the cognitive patterns of their culture as presented to them by others such as parents, teachers, siblings or other peers (Lantolf & Appel, 1994a). Children not only internalize the object of learning, but are also capable of exercising control over their behaviours (self-regulation) through the 'I-Me' dialogue (private speech) which is derived from the 'I-You' conversation (social speech). Vygotsky believes that the onset of private speech plays an important role in the development of children's thinking, as it can be seen as the beginning of verbal thought, serving the transformation from externalization to internalization. Private speech is derived externally from social interactions with other people, and then is internalized and used by an individual to master his or her own mental functions (Bodrova & Leong, 2003). Children begin their practical actions from other-regulation through social interaction, later using private speech to regulate their mental thinking and achieve control over themselves in practice.

According to Lantolf and Thorne (2006), Vygotsky recognizes that "internalization is not a one-way street. Internalization forms an inseparable unity with externalization." (p. 154) When children face problem-solving tasks, they externalize their inner speech to

control the task and address the issue. In other words, through externalization, individual's inner speech surfaces as a form of private speech.

Furthermore, regarding Vygotsky's view of preschool children, the development of self-regulation is connected to two contexts. The first concerns the development of private speech as mentioned previously, and the other concerns the development of make-believe play (Bodrova & Leong, 2003). Play provides a particular context in which children are able to develop their self-regulation by playing different roles and following corresponding rules.

3.7 Cultural- Historical View on Play

3.7.1 What is play? Object, meaning and action in play.

Play is a vital transitional stage which can provide the impetus for a child to sever the originally intimate fusion between meaning (word) and reality perception, meaning and object, and meaning and action (Nicolopoulou, 1993). Play is characterized as a vehicle for operating with meaning. In play, a child acts out the role of an adult, and acts out the adult's social relations by generating objects and actions in representational thought, in which meaning is transferred from one object to another, from one action to another.

El'konin (2005a) discusses Vygotsky's play, whereby the characteristic of play is the creation of an imaginary situation in which the child acts like an adult in a play situation that they create. In play there is the possibility of separating the visual field from the field of sense by enacting imaginary situations of play at a preschool age. The separation of the visual field from the field of sense by a child means the child can perform the actions of what he/she can see.

At a very early developmental period, children experience confusion between words and objects, and between meaning and what is seen. They are not able to differentiate between the situation in thought and real situations. At preschool age, in play, thought becomes separated from objects, and based on observations by Vygotsky (1966), "a piece of wood begins to be a doll and a stick becomes a horse" (p. 12). Vygotsky

emphasizes that it is initially impossible for a preschool-aged child to sever the meaning of a word from an object directly. In play, they use a pivot for severing thoughts from objects. Children use substitute objects/actions as symbols to represent other objects/actions and sever them from their real meaning. For example, in play the child sees a box as a car to drive or a wooden block as a boat to sail in the ocean. In this process, a box or a wooden block acts as a substitute object and functions as a "pivot" for severing the meaning of 'car' or 'boat' from the real objects. Or, it can be said that the substitute action itself acts as a "pivot" that makes the child sever the meaning of 'car' or 'boat' from the real car or boat. At this point, the meaning in play becomes the determinant and dominates over the objects/actions. Inversely, objects/actions are moved from a dominant to a subordinate/secondary position and subordinated to meaning. This can be explained as follows:

$$\frac{\text{Object}}{\text{Meaning}} \quad \text{to} \quad \frac{\text{Meaning}}{\text{Object}}$$

and

$$\frac{\text{Action}}{\text{Meaning}} \quad \text{to} \quad \frac{\text{Meaning}}{\text{Action}}$$
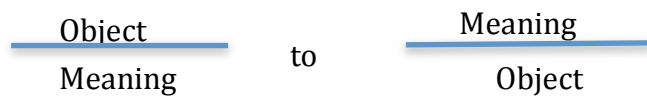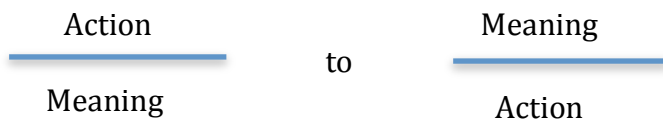
(Vygotsky, 1966, p.15).

The substitute objects/actions become mediators/cognitive tools, which shows "children's internal process in external way…and the internal transformations brought about by play in the child's development" (Vygotsky, 1966, p.15). In play, children rely on this kind of mediation by concrete objects or representational actions to develop their imagination and reproduce real situations. Through this imagining process in role play, children make meaning of social relations and interpret everyday concepts. Adults' engagement within their role play is particularly helpful for their exploration of new concepts as it encourages them to use substitute objects and enhances their play dialogue, thus improving their language in play.

3.7.2 The historical origins of play.

Children's play in a given community varies from one context or community to another and is considered in relation to the cultural milieu. Leont'ev (1981) theorises that children's different patterns of play can be generated depending on how the context of the community is structured, how play is defined and understood, and the significance of play. Thus, "play is a common childhood activity across cultures, but at the same time play typically expresses concerns that are culture specific" (Göncü & Gaskins, 2006, p. 113). Therefore, while play may be a universal activity, it is culturally diverse. El'konin (2005b) also analyses of how role playing originated and concludes that

> Role play develops in the course of society's historical evolution as a result of changes in the child's place in the system of social relationships. It is thus social in origin as well as in nature. Its appearance is associated not with the operation of certain internal, innate, instinctive energy, but rather with well-defined social conditions of the child's life in society. (El'konin, 2005b, p.86)

This challenges the idea that children's play is a biological phenomenon. On the one hand, the role the child plays and the content of play come from the social roles and adults' relations available to them. On the other hand, children's play is a result of adults' mediation (this mediation is discussed above). Adults introduce and model the social roles in the world to children. Thus, children's role play has a social nature.

3.7.3 The nature of play: Creating imaginary situations.

In cultural-historical theory, play is thought to show how "developed cognitive capacities serve important cognitive, emotional and motivational functions and by so doing, potentially influence the child's development" (Gaskins & Göncü, 1992, p.34). Vygotsky (1966) considers that in play children create an imaginary situation as "a means of developing abstract thought". Play is a vital transitional stage which can provide the impetus for a child to sever the originally intimate fusion between meaning (word) and reality perception, meaning and object, and meaning and action (Nicolopoulou, 1993). It should be made clear that Vygotsky's play does not include any

58

other kinds of activities, such as movement activities, explorations, and object manipulations, which are still considered as 'play' by many other scholars. The 'real' play of Vygotsky focuses on three aspects, in that "children create an imaginary situation, take on and act out roles and follow a set of rules determined by specific roles" (Bodrova, 2008, p. 359).

Preschoolers begin with creating a "make-believe" situation. It is possible for preschoolers to separate the sense field from the visual field. As discussed earlier, to meet the needs of acting like an adult, the preschool child enters "an imaginary, illusory world" in which they can realize unrealizable desires (Vygotsky, 1978, p.93). This is the world of Vygotsky's play. In establishing criteria for distinguishing a child's play activity from other forms of activity, Vygotsky (1966) concludes that "in play a child creates an imaginary situation" in which children take on the role of adults and act it out in a play situation that children create (p.8). The creation of imaginary situations becomes the central and most characteristic activity in play (El'konin, 2005a). In other words, "the basic criterion of play is the imaginary situation, which is the space between the real (optical) and sense (imaginary) fields" (Kravtsov & Kravtsova, 2010, p.29). In children's play, "two kinds of subjectivities appear in which, initially, the child imbues objects (optical field) with new meaning (sense field) and through this are enabled to consciously know their feelings of happiness while playing out the character who is expressing quite different emotions" (Fleer, 2010, p.127). Kravtsova (2008) has developed a model to explain this in Figure 3.4.
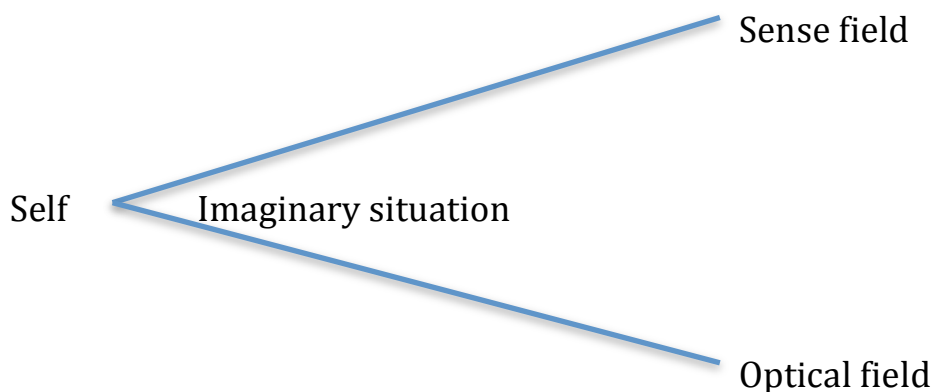
Figure 3.4. **Kravtsova's model of the imaginary situation in play.**

In play, the child can change the space of his/her optical field to the sense field through the imaginary situation. For example, a child can be playing the role of a patient with a broken arm. While the "doctor" places a "bandage" on their arm, they may act as though they are in pain, while in actuality the child is enjoying him/herself. Moreover, although the bandage is a real object, such as a tea towel, it is given new meaning in the imagined situation. It can be seen that the child is both inside and outside the play. Imagination enables them to independently act out their perceptions and understandings of the social relations in reality. In other words, with the help of their language and speech, children are able to perform their sense field through imagination. Therefore, in play, children are able to express their awareness of the world through play actions and communication (Winther-Lindqvist, 2010).

This study provides insight into the links between the development of imagination and language use within play in relation to family pedagogy. Vygotsky (1987) argues that the development of speech is linked to the development of imagination as a cultural function. Play paves the way for children to create an "imaginary situation" that is henceforth converted into an internal process such as internal speech, logical memory, and abstract thought in external action (Vygotsky, 1966). Imagination is a kind of psychological process for the child.

As Vygotsky (1966) argues, children experience "make-believe" play and perform actions unintentionally and spontaneously.

> In play a child unconsciously and spontaneously makes use of the fact that he can separate meaning from an object without knowing he is doing it; he does not know that he is speaking in prose just as he talks without paying attention to the words (p. 13).

In the beginning, in play a child performs the actions with the object to imagine/imitate the real situation. The child does not know what he/she knows although he/she knows how to act them out. Later, the child can realise the nature of the real objects consciously and internalise them. Thus, in this transitional direction, play paves the way for children to create an "imaginary situation" that is henceforth converted into an internal process

such as internal speech, logical memory, and abstract thought in external action (Vygotsky, 1966). Imagination is a kind of psychological process for the child. "From the point of view of development, the fact of creating an imaginary situation can be regarded as a means of developing abstract thought" (Vygotsky, 1966, p.17). Thus, how to develop preschooler's imagination is a key point for educators. It is necessary to understand the nature of the imagination in play before considering the development of imagination.

3.7.4 The nature of the imagination in play – dialectic relations between imagination and reality.

When interpreting Vygotsky's concepts of creativity and imagination in childhood, it is important to acknowledge the dialectical relation between imagination and reality. Vygotsky (2004) argues that imagination is associated with reality, suggesting that drawing an exact line between imagination and reality is not plausible. He asserts that "everything the imagination creates is always based on elements taken from reality" (p. 13), and is therefore dependent on a person's past experience (Fleer, 2010). A child's play is not simply an echo of what he/she has experienced, but a creative reworking of what he/she saw and heard in reality (Vygotsky, 2004). In imagined play, children pretend how to behave like a mother, sister, doctor, teacher, etc. showing the rules behind their imaginary situation. "The rule has its roots in reality, reflected in the child's imagination" (Kravtsov & Kravtsova, 2010). The real world thus informs their role play, influencing the objects children play with and the social roles they imitate.

When El'konin (1999) discusses the significance of play, he too confirms that "play is an activity in which children assume the role of adults and model the relationships entered into by adults in their real lives, especially as they go about their basic social and work functions" (p. 61). As children's past experiences form the origin of their imagination in play, the richer children's experiences, the richer the material they can imagine in their play (Vygotsky, 2004). Adults' experiences are much richer than a child's, thus, adults' imaginings are much richer. Therefore, by engaging in children's play adults bring their experience to the imagined situation, which may enhance the play experience and support the development of their imagination and thinking. Fleer (2010)

calls this collective imagining in play. In play children connect with the historically formed collective knowledge that has been generated over time, while collectively creating imaginary situations with adults to make new meaning of their play.

From the pedagogical perspective, to develop children's imagination is to broaden their experience. When children are given more opportunities to see, hear and experience reality, their creative scope is enriched and can be engaged in more productive endeavours (Vygotsky, 2004). El'konin (2005a) supports this point of view, asserting that

> Role play is especially sensitive to human activities, work and the interactions among people, and thus that the major content roles that children take on involves the reproduction of precisely this aspect of reality. (El'konin, 2005a, p.41)

It is clear then that the content of role play comes from reality, such as the objects children play with and the social roles they imitate. As Winther-Lindqvist (2010) argues, reality provides the materials and rich experiences with endless possibilities for children's imaginative creation. Conversely, when observing children's role play, we also learn that to support their play and imagination, various real life situations and relationships need to be introduced and provided for them to draw on.

From the Vygotskian perspective, it can also be seen that in "the forms of imagination that are directed toward reality, we find that the boundary between realistic thinking and imagination is erased ... Imagination is a necessary, integral aspect of realistic thinking" (1987b, p. 349). This resultant dialectical relationship between reality and imagination indicates two important aspects. On the one hand, reality is considered to be the origin of imagination; on the other hand, it is imagination that informs innovative creations in the real world. "The creation of this autonomous world of imagination also leads the child, paradoxically, back to reality (Nicolopoulou, Sa, Ilgaz, & Brockmeyer, 2010, p.45)." This is why imagination is so important. "Imagination is a transforming, creative activity directed from the concrete toward a new concrete... with the help of abstraction" (Vygotsky, 1998f, p. 163). It is said that imagination is a way to demonstrate reality and

to make it both richer and broader. The richer the reality and experience of players, the richer their imagination and creativity, and vice versa (Baumer & Radsliff, 2010, p.13). Play can be considered as a unit of imagination and reality. The richer the content players act out in the play, the stronger the relationships between imagination and reality (Baumer & Radsliff, 2010). In order to support children's language development in play, we also need to understand the different types of play in terms of children's developmental periods, which are discussed in the following part.

3.7.5 The various "types" of play in child's mental development.

How does play lead to children's development? In light of the significance of play, it is important to understand how "play" takes place. Vygotsky (1966) interprets play as "the imaginary, illusory realization of unrealizable desires" for preschoolers (p.8). During activity, young children use language and imagined roles as mediatory tools to understand and master social relationships within society. Kravtsov and Kravtsova (2010) further elaborate on the understanding of Vygotsky's context of play, categorising the different types of play of young children according to the child's mental development, as follows:

- Director's play: At an early age children engage in director's play, which is of an isolated nature involving different objects (words, characteristics, etc.) that are able to take on various meanings (the field of "sense"). For example, a child may use a doll to make up a story about a doll. As Kravtsov and Kravtsova's (2010) work elucidates, "this play represents the 'imagined situation', where the child takes a 'real position' (by looking at the objects, by touching them, etc.)" (p. 38).
- Image play: the child should have a strong attachment to the role they imagine in image play. One prominent example given by Vygotsky is of a child who picks up a stick and stands astride of it, pretending he is riding a horse. The child's idea first involves imagining a horse being ridden. He/she then makes a link between a stick and a horse. Thus, his/her imagined role is of a horseman. This type of play "allows the child to establish a role of identification …the image should be thoroughly familiar to the child" (Kravtsov & Kravtsova, 2010, p.39).

- Plot-role play: This is developed from the two previous types of play. The plot-role play, as seen from the name, creates an imagined plot with different roles with different contents. It leads to different types of communication and collective imagining. For instance, it can be observed that children play "doctor and patient", "teacher and student", "waiter/waitress and customer", "mother and baby", etc. This type of play allows preschoolers to focus on their roles in relation to other play partners rather than only focus on their movements (Kravtsov & Kravtsova, 2010).

- Rules game: Following plot-role play, "the imagined situation of a game with rules is determined by the rules" (Kravtsov & Kravtsova, 2010, p.39). In cultural-historical theories the analysis of play and its developmental process focuses on the importance of rules within these imaginary situations (Duncan & Tarulli, 2003). From Vygotsky's viewpoint, play demonstrates "the significance of the movement from the predominance of the imaginary situation to the predominance of rules" (Vygotsky, 1966, p. 71). In socio-dramatic play the rules become explicit (Duncan & Tarulli, 2003). For instance, the child who wants to play the role of the mother must follow the rules of maternal behaviour as a mother. As the result of the social interaction with others that occurs during the play, the child can understand the role of motherhood and maternal behaviour. For children at the end of preschool and primary school-aged children, the rules inherent to the imaginary situation become the focal point and the imaginary situation changes to a subordinate or secondary position (Duncan & Tarulli, 2003). "Role-play becomes rule-play" (Leont'ev, 1993, p.26), making apparent that in socio-dramatic play self-control and self-regulation occur within the child. Children's play is called games (rule-play).

Understanding children's various types of play allows us to help children carry out the different forms of actual activity. Play can be considered as a pedagogical tool to support children's higher mental functions development. This will be discussed in the following section.

3.7.6 Play as the leading activity during the preschool period.

The concept of a leading activity was first introduced by Vygotsky (1966) when he discussed play and its role in children's mental development. Subsequently, A.N. Leont'ev (1981) developed the idea of a "leading type of activity", followed by D.B. El'konin, who developed a periodization of psychic development based on this concept (Kravtsova, 2006). El'konin argues that "a leading activity is an activity that is central in the structure and system of activities – that is, their development proceeds under its influence and it enters into them" (cited in Veresov, 2006, p. 18). Development as a dynamic process concerns the changes in the system structure at the given age. The continuity of development comes into actuality during the "constant structural reorganization of the entire system of the child's activities as a living, organic system" (Veresov, 2006, p. 19). Kravtsova (2006) argues that "a child's transition from one chronological stage to another is marked by a change in leading activity" (p. 8).

As a corollary of these ideas, Vygotsky, El'konin and Davydov identify a "leading activity" for each age-related period, according to the law of children's higher mental development and the sources of development. Each given period must be in accordance with the "type of the child's holistic activity that is most significant for that period (Davydov, 2008c, p.49), which is called the "leading activity" in that period. The concept of a leading activity for each age period involves psychological changes, which means the "transformation of child psychology into a developmental psychology based on the concept of age-specific new psychological formations" (Kravtsova, 2006, p.10). According to Vygotsky (1998g), "At each given age level, we always find a central neoformation seemingly leading the whole process of development and characterizing the reconstruction of the whole personality of the child on a new base" (p.197). During a given age period, the child develops a new self-awareness of the neoformations through communication with adults. At the beginning of the stable period age, adults support children within their ZPD to develop the new concepts through everyday communication working on the leading activity. As a consequence, the child makes sense of new concepts and masters the leading activity, and he [she] is able to regulate the leading activity independently at the end of the stable period. Meanwhile, a qualitative psychological change occurs when the child realizes concepts through new

and different ways. This new developmental period is replaced in association with the leading activity at a given period, which shows a "dynamic relation that determines the change and development of the whole and its parts" (Vygotsky, 1998g, p.198). The periodization of a child's mental development also indicates that the relations between the child and his [her] social environment are dynamic.

El'konin states that in infancy (from birth to one year) the leading activity is direct emotional communication (Veresov, 2006, p.10). Following that, Davydov (1988b) argues that learning activity is the leading activity in the younger school-age period. In the process of learning activity, children reproduce knowledge, skills and historically emergent abilities. When children develop to the preschool period, children want to act like adults as they observe adults' relations and actions in their everyday life. Play allows children to meet their motives and "perform an action in the absence of the conditions needed for the actual achievement of that actions' results" (Davydov, 2008c, p.56). Thus, play becomes the leading activity for preschool aged children. Play creates a special social situation of development in which the learning activity emerges (Veresov, 2006; Vygotsky, 1966). Vygotsky (1966) argues that "play is not the predominant form of activity, but is, in a certain sense, the leading source of development in preschool years" (p.1). Play as a "leading activity" creates the social source of development. That is, the leading activity during the preschool period concerns imaginative play, because it helps children to appropriate a given imagined situation in and enables them to practise adult roles for future reference (Göncü, 1999).

Vygotsky asserts that children move forward and develop through play activity during the preschool age period. Kravtsov and Kravtsova (2010) give us a very good example of "plot-role" play as follows;

> One of the most favourite games children love is learning how to read, by using the example of a post office, where the postman reads addresses and brings letters to a particular child, and this child in turn carries out the task written in the letter, or writes a reply to the sender. If children/adults have a poorly developed understanding of the "plot-role" in play, then the actions will be made on an imagined plane. For example, a child who has received a letter and does not read

66

it, but invents a text as if he/she were reading it, fits the example of the imagined plane. At the same time, when the "plot-role" play becomes integrated into a "life activity," then reading letters, carrying out tasks, answering the letter, and so on all become real. (Kravtsov & Kravtsova, 2010, p.39)

Their example shows that if children and adults have a good understanding of the "plot-role" in play, adults may help children engage in the play as a "life activity" (life learning skills). Through communication and performing the plot role, children may develop relevant skills such as literacy (reading letters/answering the letter) and problem solving (carrying out the tasks). That is, under the adult's support,

> the child begins to distinguish between the external and internal aspects of adult life and of his own life... these experiences are generalized... [through] the imagination and the symbolic function of consciousness, which enable the child to transfer, in his [her] actions, the properties of certain objects to other objects...[thus the child] develops an orientation towards the general sense and character of human relations. (Davydov, 2008c, p.56)

Therefore, play is considered as "the source of development and creates the zone of proximal development" (Vygotsky, 1966, p.16). In this sense, play as a leading activity determines preschoolers' development. The child at play "jumps above the level of his [her] normal behavior", behaving "a head taller than himself" (p.16). El'konin (2005c) also considers pretend play to be a result of the social interaction between a child and an adult, connected through a social relationship. Adults' play with children, as a leading activity in the dynamic process of development, not only creates the ZPD, but also promotes children's development from the ZPD to actual development, and helps children make a quality change. Vygotsky's play in creating the ZPD refers to:

> In play, children collaborate in constructing and maintaining a shared imaginary situation in an activity that is simultaneously voluntary, open to spontaneity, and structured by rules – but these are rules recognized and accepted as necessary by

the children themselves, not simply handed down by adults. (Nicolopoulou, et al., 2010, p.45)

In other words, children make sense of the collective imaginary situation, thus enjoying themselves when they engage in play activities in collaboration with adults. Under the support of adults, children are able to interpret and explore their collective imaginary situation, thus mastering rules and developing skills in the play. As a result, play guides the transition from interpsychological functioning to the intrapsychological plane. This current study establishes how families participate in preschoolers' play and the contribution of this to children's bilingual heritage language development. The ways in which play with children can be developed, and how to support children in play in order to make a quality change, is another focus in the study.

3.7.7 The path of development of children's imagination as the development of higher mental functions.

Fleer (2010) has shown how imagination develops within play and further confirms that play is a leading activity for preschool age children. Her imagination and creativity model (Figure 3.5) of play and pedagogy is shown as a cultural-historical framework. Her work illustrates how early learning studies on play builds up the pedagogical model for developing theoretical knowledge and practice in play-based activities, which helps us respond to this question in relation to pedagogy.

Fleer argues that from a cultural-historical perspective, creativity and imagination are the result of a combination of collective and individual imagining. The **collective imagination/creativity is** "enshrined in the living process and artefacts that society uses today, and continues to be shaped in relation to new needs and materials" (Fleer, 2010, p.139). That is, on the one hand, in play children connect with the historically formed collective knowledge that has been generated over time. On the other hand, children in play create imaginative situations to develop their knowledge and build upon these concepts under some form of adult support. **Individual imagination** in children's play does not simply show what the child has happened to observe or experience, but "the creative reworking of the impressions he [sic] has acquired. He [sic] combines them and

68

uses them to construct a new reality, one that conforms to his [sic] own needs and desires" (Vygotsky, 2004, pp. 11-12). Children use role play to act out what they create with their imagination.

Fleer (2010) further argues that the nature of a cultural-historical perspective on imagination dictates that it must be considered as a dynamic interplay between individual and collective creativity.

> In developing concept formation it is important for teachers to actively consider the nature of the history of discipline knowledge as a collective imagining, and to determine its relationship with children's individual imagining during play. (Fleer, 2010, p.148)

Within the theoretical framework, imagination moves from the individual plane to form a dialectical connection between collective and individual imagining (Fleer, 2010). Furthermore, Fleer thoroughly analyses the empirical research data to see imagination forms a pedagogical representation, as seen below.
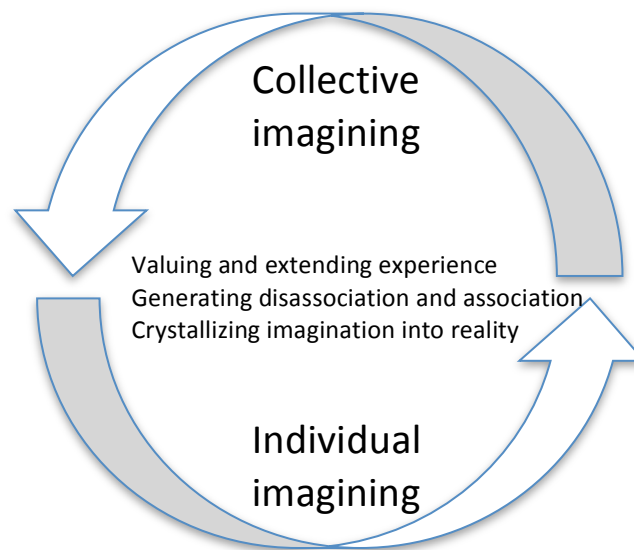
Figure 3.5. **Imagination and creativity (Fleer, 2010, p. 143).**

The above figure shows Fleer's (2010) dialectical pedagogical model for supporting the development of imagination.

> The development of imagination proceeds in a dialectical way, where the importance of a child's prior experience, the disassociation and re-association process involved in the imaginative act, and the crystallization process of imagination into a material form, come into play during their development. (Fleer, 2010, p. 143)

In other words, a child's play situation is based on past experiences that have been observed and noticed, which enables the child to decide what to include or disregard in their imagined play, and to connect separate actions into a whole distinct process or a new schema.

Fleer's approach reflects Vygotsky's statements that all higher mental functions are internalized social relationships (1981, p.146). The development of imagination as a higher mental function begins with the "interpsychological" (i.e. social) plane and then progresses to the "intrapsychological" (i.e. individual) plane via social interaction (Wertsch, 2008). In addition, Vygotsky (1987d) argues that the development of speech is linked to the development of imagination as a cultural function. This connection is related to the child's interactions with their surroundings, through which collective social activity informs the child's consciousness of basic psychological forms (p.346). Smolucha (1989) outlines Vygotsky's basic ideas regarding the development of imagination, in that "creative imagination develops from children's activity into a higher mental function that can be consciously regulated through inner speech" (1989, p.2). That is, creative imagination becomes a higher mental function directed by inner speech/verbal thinking, which can facilitate connections between word and object with meaning as the internal mediator. Thus, children use word meaning to mediate their thoughts in order to create imaginative situations in play. "Speech frees the child from the immediate impression of an object. It gives the child the power to represent and think about an object that he has not seen" (Vygotsky, 1987d, p.246). Therefore, "both imagination and realistic thinking are social and verbal" (Gajdamaschko, 2006, p.37).

Imaginative situations in play provide a particular context in which children are able to build up their theoretical knowledge and develop their skills. This offers a new dimension to Vygotsky's comprehension of children's play. Bodrova (2008) demonstrates her further understanding of play by suggesting that under the active support of adults young children can master the competencies – language, cognitive, social and emotional skills – through engagement in play. Linking this notion to the current study, preschoolers' bilingual heritage language development is investigated as a dialectically dynamic process in play, in order to provide parents with better pedagogical tools for thinking about and supporting their children's development. Parents, as active participants in joint play activities, can apply strategies such as questioning and negotiating in order to encourage children's exploration of new concepts and word meaning. In the process of exploration, children are able to develop their abstract thinking, which can result in an improvement of their language and vocabulary. As a consequence, language is able to develop and be internalised, as the dynamic process of convergence of imagination and reality enhances children's higher mental functions.

Karpov (2005) believes that one of the major developmental outcomes of adult mediation of children's activity is the development of motives in children's play. In cultural-historical theory, "motive" is another important concept in children's development.

3.8 The Development of Motives

According to Leont'ev's (1978) activity theory, as opposed to having an internal source, motives are determined by cultural practice, and in turn influence how practice is structured. Children need motives to engage in institutional and social practices. Development can be understood "as a result of the demands created in the social situation of development, which arises from the interaction between the children's motives and the adult demands associated with the practice in which they are engaged" (Hedegaard & Chaiklin, 2005, p.64). With regard to this study, the development of motives needs to be considered when parents contribute to their children's bilingual heritage language development.

Contemporary cultural-historical scholars such as El'konin (1972), Göncü (1999), and Kravtsova (2008) link "motives" to activity, but through different theories. They introduce the development of motives as the main point of child development. Leont'ev (1993) claims that "children's development is distinguished first and foremost by the transformations that take place in the motives for their activity" (p. 24). Activity is always linked to motive and motivated by social or biological needs and desires. In other words, there can be no activity without motive to drive and guide it (Leont'ev, 1981). A motive reflects why something has to be done, while the motive of the individual determines how actions will be constructed as well as their significance (Lantolf & Appel, 1994). Furthermore, Gonzalez Rey (2011) sees "motives" from a different perspective, in that "motives must be analyzed as particular moments of the subject's subjective configurations in his or her multiple and simultaneous expressions" (p. 38). When children make sense and become conscious of the world through exploration with adults in activities, they "generate new networks of subject senses and possibilities for the subject's actions" (Gonzalez Rey, 2011, p. 36). In other words, children develop motives for further action. Therefore, the motivation for activity needs to be taken into account when researching bilingual heritage language in social interactive activities.

For instance, in sociodramatic play activity, children have the need to act like adults (Leont'ev, 1981). D.B. El'konin (2005c) also analyses the theories of play and confirms that the major motive of play is "to act like an adult – not to be an adult, but to act in the way that adults do" (p. 86). Preschool children in play-based activity are interested in the adults' world. As evidence, in play preschool-aged children initially imitate familiar social roles such as mother and baby, teacher and student, doctor and patient, etc. In this sense, children develop their motives when performing these social roles in play and gain access to the social meaning and aims of adults' activity through play activities. Thus, motives develop as a relation between children and the activity they engage in (Hedegaard & Chaiklin, 2005). El'konin (2005b) criticises the view that children's play is a biological phenomenon and contends that "play is social in its origin" (p. 88) and driven by social relations and situations. Thus, children's motives must be created from their engagement in social activities and their interactions with others and objects. The development of motive, from the cultural-historical perspective, is generated by

children's relationships with the social situation of development at the given period and "reflect[s] the child's social situation of development" (Hedegaard, 2012, p.24). Furthermore, Hedegaard (2012) also contends that a motive can be seen "as something which exists in institutional practices that a person confronts through the activity settings in his/her everyday life" (p. 15). We can notice that "motives are developed in the course of the person's interaction in social institutional practices" (Winther-Lindqvist, 2012, p.129). Therefore, researching children's motives requires seeing the child in his or her activities and institutional practices in their everyday life (Hedegaard, 2012). This study focuses on children's play activity, household practices and shared book reading activities in everyday family contexts to investigate the interactions between children and parents, and identify children's motives development.

As discussed earlier, children participate in different practices in different age periods. Furthermore, each major period of childhood is determined by changes in practices, which result in new motives and competencies (El'konin, 1972). The dominant preschool activity is play, which takes the leading role in development. El'konin (1972) completes the work of Vygotsky, and explains why role play occurs and what the real meaning of role play is.

> Role-playing is an activity within which the child becomes oriented toward the most universal, the most fundamental, meanings of human activity. On this basis the child begins to strive for socially meaningful and socially valuable activity, and in so doing demonstrates the key factor in readiness for school. This is the chief significance of play for mental development; it is its dominant function. (El'konin, 1972, p. 242)

Through play, the child has achieved the cognitive skills, the development of symbolic thought, and the ability of self-regulation in non-play activities, which gets him/her ready for the demands made of school students. At the transition to school age, the changes in a child's motives are related to changes in their social relations to others and the material world. Merely performing adults' roles in play activities is not enough for children to become more knowledgeable. Play thus needs to lead to the development of

73

new motives to be able to master the skilled activities of adult life, such as reading, calculating, writing and using scientific tools like adults (Hedegaard & Chaiklin, 2005; Karpov, 2005). As a result, the motive to learn subject-matter skills in the course of school programs arises and becomes much stronger than children's motive for the imitation of social roles and relations in play-based activity.

As has been argued, the development of motive results from adult mediation. Traditional western psychological researchers hold the view that children's play is a spontaneous and self-motived activity, which ignores adult's mediation and guidance to children's play. Karpov (2005) discusses the observations and studies of western researchers and confirms "children's pretending a play role is not spontaneous and self-motivated, but is the result of adults referring them to the roles that they are performing without realizing it" (p.123). As a result of mediation within the activity, the child develops new mental functions and new motives because of the demands and drives from the institutions. This mirrors Hedegaard's (2012) argument that "a child's playfulness and modeling of other persons in his or her social situations lead to new motive orientations that surpass the basic needs for care" (p.58). Furthermore, the relationship between demands from the adults that children encounter, and demands children place on parents which are driven by their own motives, shape the conflicts that occur. From a child's perspective, adults support children's new motives in "creating new possibilities for a child's interactions, learning and development" (Hedegaard, 2012, p.58). Mediation acts not only to support children's experiences, but also to motivate their full participation. Vygotsky views "mediation to be mainly responsible for the development of new motives in children" (Karpov, 2005, p.41).

As an example, two to three-year-old children like role-playing mothers. On the one hand, they experience mothers' care such as feeding, bathing, and putting them to bed in their everyday lives. On the other hand, in their play with adults, the adult reacts to their role play by asking them "how is your baby today?" or "did they cry a lot?" Gradually, play is enhanced because of adults' mediation, and children's motives develop. Therefore, adults' mediation, although mostly unconscious, is very important to the development of the motives in children. One of the research questions of this study aims to find out the ways parents support and mediate preschoolers' bilingual language

74

development in shared family activities. The development of motives and adult mediation needs to be taken into account.

3.9 Chapter Conclusion

The current study's research questions and aims regarding family involvement in preschoolers' bilingual heritage language in home contexts have been informed by cultural-historical perspectives. Through cultural-historical theories the study examines family child-rearing practice in children's Mandarin as a bilingual heritage language development. This perspective mainly utilizes Vygotsky's concepts of mediation, the ZPD, role play and motives to aid analysis of the data. The theoretical framework is shown in the following Figure 3.6.

First of all, since the main purpose of this study is to identify family child-rearing practices in preschoolers' bilingual heritage language development, parents' mediation must be taken into account. As discussed above, adults' mediation is the major determinant of preschoolers' language development. Thus, the mediation approach is the theoretical orientation for this study. Conflict occurs within and is rooted in the relations of children with adults, which provides opportunities for children to develop their motives. The development of motives is an outcome of adults' mediation in joint activities. From a cultural-historical perspective, motives determine what activities children participate in, and the ways in which they participate. Furthermore, parents mediate children's language development within the ZPD. The notion of the ZPD provides the theoretical basis for this study. Play as a leading activity creates the ZPD for preschool age children. Parents can use play as a pedagogical tool for supporting their children's bilingual language development. Vygotsky's play theory takes centre stage in this study.
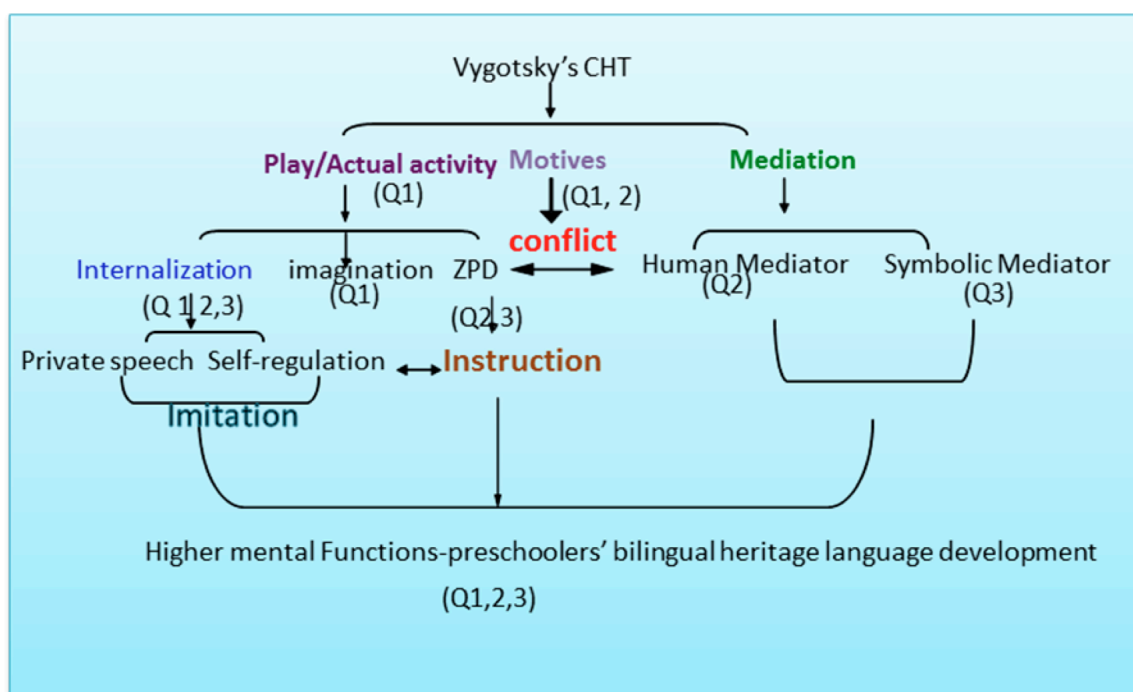
Figure 3.6. **Theoretical framework based on Vygotsky's concepts.**

Subsidiary research questions:

Q1: How do parents participate in play activities in order to contribute to children's bilingual heritage language development?

Q2: What other interactions between parent and child appear to be important in supporting children's bilingual heritage language development?

Q3: What are the strategies parents use to support their children's bilingual heritage language development in relation to their cultural beliefs about child rearing and learning?

It is important to note that cultural historical theory has been understood as offering a guide to the study. In a research context, the methodology driven by the cultural historical theory needs to be clarified. The next chapter illustrates methodological issues in cultural-historical study by discussing the research paradigms, research methods and design, the role of researcher, etc. The methodology chapter provides an account of how

research approaches were devised for the generation and analysis of data and strategies for exploring children's meaning making.

Chapter 4

A Dialectical-Interactive Methodology: A Wholeness Approach

Qualitative research is a situated activity that locates the observer in the world. It consists of a set of interpretive, material practices that make the world visible... Qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them. (Denzin & Lincoln, 2005, p.13)

4.1 Introduction

In the previous chapter, the theoretical foundation for the research was presented. Chapter 3 shows how the research fits within the cultural-historical paradigm. This chapter draws connections between cultural-historical theory and methods and brings new insights to the methodological principles that animate Vygotsky's philosophy. What emerges from this cultural-historical perspective is an approach to social scientific study that remains vital and useful for contemporary research on child development. As Vygotsky (1997c) specified, "every basically new approach to scientific problems leads inevitably to new methods and ways of research" (p.27). Contemporary methodology writings mostly focus on how to design and employ useful research methods and the issues of validity and reliability, however, they ignore the most important thing: "what we do in practice is to a very large extent determined by our theory" (Tudge, 2008, p. 88). Thus, the most important thing to acknowledge is that research methodology must be driven theoretically. The following section focuses on how cultural-historical theory orients the methodology of this study.

The cognitive revolution occurred in the 1960s, eliciting a change from individualism to social-culturalism. Educational researchers developed a cultural-historical approach to understanding the meaning of human development and how mental functions develop culturally, socially and historically. This kind of cognitive theory is deeply influenced by

Lev Vygotsky (1987d) and his followers such as Leont'ev and El'konin. If the construction of learning is linked to a cultural-historical context, then what kind of appropriate research methods may help to explore the situational aspects in which learning and development take place? The purpose of this chapter is to discuss the ways in which research methods should be framed theoretically, in order to examine how a dialectical-interactive methodology (Hedegaard, 2008c) is useful and suitable for research on family pedagogy supporting preschoolers' bilingual heritage language development.

4.2 Philosophical Assumption and Research Theoretical Paradigms

Qualitative research is "the collection, analysis, and interpretation of comprehensive narrative and visual data to gain insights into a particular phenomenon of interest" (Gay, Mills, & Airasian, 2009, p.7). I chose this qualitative research methodology primarily because the nature of the research seeks depth and detail in order to find out holistic perspectives of how Chinese immigrant families contribute to children's Mandarin development at home. This current research focuses on the collection, analysis and interpretation of data regarding Chinese immigrant families supporting young children's bilingual heritage language development in Australia, using qualitative methods (i.e., interview and video observation) to interact extensively and intimately with participants.

According to Creswell (2007), "the research design process in qualitative research begins with philosophical assumptions that the inquirers make in deciding to undertake a qualitative study" (p.15). Good qualitative research requires making assumptions, paradigms, and theoretical frameworks that shape the content of the research project and influence the conduct of inquiry. The aim of this section is to build upon this argument in the following aspects: what philosophical assumptions are being implicitly acknowledged, and what particular alternative paradigm stances and interpretive frameworks are likely to fit within cultural-historical theory.

4.2.1 Philosophical assumptions.

As Bakhurst (2007) has explicated, Vygotsky's cultural-historical philosophy was much influenced by Marxist dialectical materialism. According to Davydov (1988a), the dialectic-materialist philosophy which was created by Marxism-Leninism is of "determinative significance to the elaboration of the problems of psychological science" (p.15). Marx and Lenin's work is centred around economics and capital in bourgeois society. Marx's dialectical materialism takes humans' material activity as its basis, which is the opposite of idealism and mechanical materialism. Marx analysed the dialectical nature of humans' relationship with the natural world. Holt (2009) reviewed Marx's understanding of nature and concluded that "nature is objectively real for Marx and the regularities of its natural process can be discovered via material activity" (p.14). This means that human beings are able to discover the laws of the nature through material activity within social and material relations. Following Marx, Lenin (1976) wrote: "The condition for the knowledge of all processes of the world in their *'self-movement,'* in their spontaneous development, in their real life, is the knowledge of them as a unity of opposites" *(*p. 357). The nucleus of the dialectic is defined as "the doctrine of the unity of opposites". Lenin's idea of dialectical logic is fundamental to analysing human development. Davydov (1988a) further elaborates that, "the categories of dialectical logic and the human consciousness that is internally linked with them arise and take shape within the unitary and manifold living practice of concrete individuals and of human society as a whole" (p. 17). Vygotsky (1987d) utilizes the dialectical method and the ideas formulated in the works of Marx and takes a psychological view to the study of human consciousness and development. Specifically, he applies the dialectical method to the genesis of thought and language (Vygotsky, 1987d). Dialectical studies of child development aim to investigate the contradictory unity of these opposite aspects and the tendencies of children's social situation of development in order to find out the possibilities and conditions of development.

This study adopts cultural-historical theories to examine family child-rearing practice in the cultivation of children's Mandarin as a bilingual heritage language development. Vygotsky's (1986) cultural-historical approach suggests that human developmental processes emerge by participating in cultural, linguistic, and historical contexts such as

family life, school settings and various other environments. To examine how young children interact with adults and other peers within the family, community and educational institutions in which they take part, cultural-historical research requires the researcher to be a partner with the researched person within the activity (Hedegaard, 2008c). The dialectical-interactive research approach creates the conditions for the researcher to study young children's activities in the social practices of everyday life, so as to examine different people's perspectives including the researcher's own point of view.

Drawing upon the theories of Guba and Lincoln (2005), Creswell (2007) and Hedegaard (2008c), I have compiled the following table which provides an overview of the basic theory of the dialectical-interactive research approach in practice that will be employed in the current study, in order to think methodologically in relation to cultural-historical theory.

Table 4.1

Philosophical Assumptions with Implications for Practice

Item	Vygotskian cultural-historical theory	Basic focuses of dialectical-interactive approach	Research issues	Implications for Research practices
Ontology	Cultural, historical, dialectic reality **Children grow up within social, cultural and historical realities** **Collectivism**	**Everyday immediately experienced reality** Children's everyday activity in **institutional (family) practices, social situations and societal conditions**	**What is existence? What is the nature of reality?** Is existence a property? Which entities are fundamental? **Dialectic materialist-realist ontology**	By using the **dialectical approach** the researcher uses quotes and themes in the participants' own words and provides evidence of different perspectives and examines the participants' everyday activities **as a whole**.
Epistemology	**Cultural-historical theoretical knowledge** **Social origin**	**Dialectical theoretical** knowledge **Interrelatedness of** people's perspectives	**What is knowledge?** How is knowledge acquired? What do people know? How do we know what we know?	The researcher collaborates, spends time in the field with participants, and becomes an **"insider"** in the

81

Item	Vygotskian cultural-historical theory	Basic focuses of dialectical-interactive approach	Research issues	Implications for Research practices
	of knowledge **The social distribution of** knowledge **Social construction of development**	**Social interaction of people** **Conflicts and transitions during development**	**How do researchers interact with and relate to what is being researched?**	researched activity
Axiology	Dialectical materialism and cultural-historical analysis	Researcher acknowledges that research is **value-laden** and that **biases** are present	**What is the role of values?** To acknowledge research is **value laden**. Note contradictory views. Admit and account for own views/interpretations	Researcher openly discusses **values** that shape the narrative and **includes his or her own interpretation** in conjunction with the interpretations of participants **Different forms** of interpretation such as the **common-sense** level, the **situated institutional practice** level, and **theoretical thematic** interpretation
Rhetoric	Cultural-historical analysis Looks at the subjective production of people	Researcher writes **in a literary, informal style** using the **personal voice** and uses qualitative terms and limited definitions	What is **the language** of research?	Researcher uses an engaging style of narrative – may use **first-person** pronouns – and employs the language of qualitative research.
Methodology	Children's development in everyday life and understanding of thought and language development as **a whole** and as **a psychological union.**	Theoretical planned interventions in practice; Participation and interaction with the participants in shared activity; Leading and provoking questions to communicate with partners	How do we come to know **knowledge or the world**? It involves practices **Naturalistic methodology**	Researcher works with particulars (details) before generalizing, describes in detail the context of the study, and continually revises questions from experiences in the field through **the dialectical** approach.

Item	Vygotskian cultural-historical theory	Basic focuses of dialectical-interactive approach	Research issues	Implications for Research practices
				The importance of **Video observations**; and **interview** and **photography** as evidence

Without understanding what the beliefs of the researcher are, how the beliefs emerge, and how the beliefs function in researching, the understanding of the research will be difficult and deficient. These beliefs are grounded by cultural-historical theory and shape how the researcher sees and feels the world and acts in it in a dialectic-interactive way. These beliefs form a net which contains "the researcher's epistemological, ontological, and methodological premises [which] may be termed a paradigm" (Denzin & Lincoln, 2005, p.22). The research paradigm structures this qualitative study.

4.2.2 Research paradigm: A dialectical-interactive framework.

In regard to Table 4.1 above, concerning the **ontological assumption**, dialectical-interactive research focuses on the social reality, which is not to be seen as fixed, and an objective external reality. According to Schutz (1953), it can be seen as a product of human activity, in humans' experiences of social reality that occur in their everyday lives. Within **the epistemological** issue, Schutz (1973) states that "this world is not my private world but an intersubjective one and that, therefore, my knowledge of it is not my private affair, but from the outset intersubjective or socialized" (p. 11). Thus, we need to identify the social origin of knowledge and the social distribution of knowledge. To research the human activity reality is to examine social agents such as families, schools and social institutions and identify the genetic socialization of reality. Hedegaard (2008c) states that "One has to realise that facts are not facts in themselves, but should be seen in relation to the practices as conditions for establishing facts" (p. 40). It is a new ontological dimension that includes the relationships people have with one another and forms a diverse "network" of all higher mental functions in its true

wholeness and social determinedness (Gonzalez Rey, 2009). Thus, dialectical theoretical research is used to study human activity and make common-sense interpretations of social reality (Hedegaard, 2008c).

Furthermore, the dialectic-interactive approach is driven theoretically. In other words, this cultural-historical research orients this methodology. As Hedegaard (2008d) comments, "Collecting research material is always guided by theoretical preconceptions" (p. 48). This PhD study is directed by Vygotsky's cultural-historical theory. Vygotsky (1994) elucidates that "the environment is the source of development of these specifically human traits and attributes" (p. 349). In studying children's bilingual heritage language development in a society with an English-speaking majority, family support is very important. The family environment and interactions must be paid close attention. Vygotsky (1994) emphasises that,

> The child's higher psychological functions, his [sic] higher attributes which are specific to humans, originally manifest themselves as forms of the child's collective behaviour, as a form of co-operation with other people, and it is only afterwards that they become the internal individual functions of the child himself (p. 349).

Regarding this research on children's heritage language development, the child's collective behaviour and performance are produced in families' everyday activities. Thus, researching children's development in a dialectic way is to examine children's everyday activity in **institutional practices, social situations and societal conditions** and to comprehend the multiple perspectives of the participants in everyday practice. Regarding the current research theme, which is to examine the ways Chinese immigrant families support young children's bilingual heritage language development, there is a focus on researching children's everyday practices in the home and within the Chinese community. Furthermore, it explores the different perspectives from home and community to see how parents contribute to the conditions for children's Mandarin language development.

The **epistemological issue** relates to the philosophy of knowledge, or how we come to know about the world. Researchers try to minimise the "distance" or "objective separateness" from the participants (Guba & Lincoln, 1988, p.94). In other words, the researcher tries to remain close to the participants and conducts the research in the contexts where the participants live and work. This is important for the researcher's understanding of the participants and for their understanding of the participants' thought processes and knowledge acquisition.

Furthermore, based on **dialectical epistemology**, researchers are inside the research activity, rather than outside of it, an idea which is grounded in theories from Vygotsky and El'konin (Hedegaard, 2008c). Hedegaard (2008c) also makes a case for the usage of the appropriate methodology when conducting cultural-historical research, whereby the researcher is situated within the shared activity as a partner with the researched persons whilst researching children's development in everyday activity settings. Hedegaard argues that in this way it is possible to examine how children themselves contribute to the interactions with both adults and other peers within the family community and other educational settings in which they are involved. Therefore, considering that the main research question of this present study concerns the ways in which Chinese-Australian families are involved in their preschool children's development of Mandarin as a bilingual heritage language, I position myself as an "activity partner" within the activity in which participants are involved in the field (Hedegaard, 2008c, p.35).

With regard to **the methodological approach**, the researcher relies on "multiple methods as a way of capturing as much of reality as possible" (Denzin & Lincoln, 2005, p. 11). The current study uses multiple research methods to find out how Chinese-Australian families assist preschool children's heritage language development. It involves participation and interaction with families and participant observation, interviews and communication with partners, video observation, and photography, which will be discussed later in this chapter.

According to Hedegaard (2008b), in a cultural-historical activity-based approach to researching children's activities in everyday life within the home context in order to understand parent-children interaction, the research methodology must be able to

investigate children's activities with parents and siblings within institutional practices, such as family settings, which are also impacted by societal traditions and values. That is, while investigating how children's learning occurs by using cultural-historical theory, dialectical researchers need to take into consideration "the child as an individual person and see the child as a participant in a societal collective interacting with others in different settings" (Hedegaard, 2008b, p. 10). As children's development and behaviour varies in the cultural-historical context, in order to understand the development of children it is necessary to analyse each child's activity through three different perspectives: the individual, institutional and societal practices under study.

4.2.3 Research approach: A wholeness cultural-historical approach.

In order to achieve the research aims – an investigation of family support of bilingual heritage language development of children from a cultural-historical perspective – a complex and dynamic methodology is needed. A dialectic methodology draws upon Vygotsky's cultural-historical concepts to seek the social situation of children's development. This study applies a dialectical methodology to explore parents' contributions to children's bilingual heritage language development in the home and weekend school context.

A dialectic-interactive methodology captures a 'wholeness' and 'dynamic' approach to research. According to Fleer (2008b), "a wholeness approach to research frames the study design in such a way that the perspectives of all the participants are captured and analysed" (p. 81). This study attempts to analyse the perspectives of the parents, researched child, siblings and even the researcher to examine how parents support their preschooler's Mandarin development.

In a dialectical-interactive approach, the researcher investigates the conditions and situations around the child, as well as how the child engages in everyday activities and interacts with others, in order to conceptualise the child's development as a whole (Fleer, 2008a). The current research aims to find out how immigrant families contribute to children's heritage language development in everyday activities in the home context. Thus, the home environment and situation surrounding the child, and how families and

children participate in everyday activities needed to be sought out in the research. I aimed to be able to conceptualise the family pedagogy in supporting child's language development as whole. The wholeness approach requires the researcher to capture and analyse different perspectives of all the participants in the study. Therefore, in this approach to undertaking research, the data interpretation includes the child's perspective and parents' perspectives. Furthermore, the researcher's views and efforts are not ignored, but become an important dimension of the research protocol that develops as the research progresses over time (Fleer, 2008b). Thus, the researcher's perspective becomes a part of interpretation protocol materials, which is different from traditional research, in which the views of the researcher in the field are not considered. Interpretation of different perspectives allows important findings, such as the strategies parents employ in joint activity to support children's language development, to be sought.

Why do we need to use the wholeness approach in studying family pedagogy and children's development? The wholeness approach is oriented by Hedegaard's (2008b) model of children's learning and development through participation in institutional practice (See Figure 4.1). In this study, data interpretation was conducted in terms of Hedegaard's model.
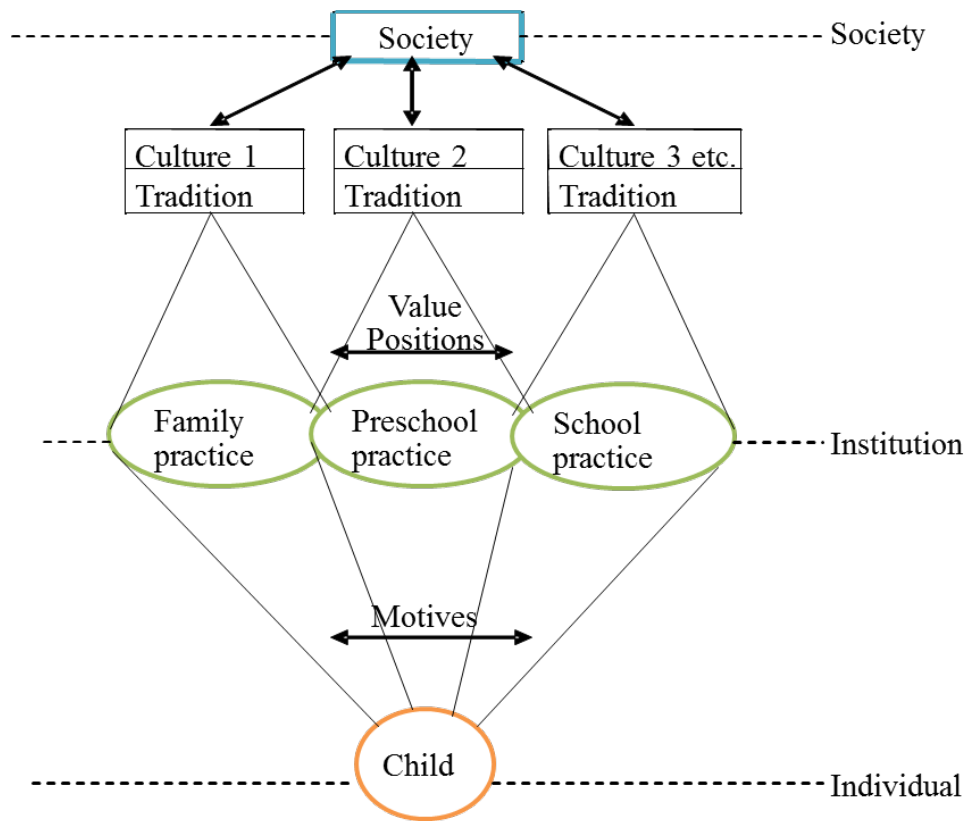
Figure 4.1. **Hedegaard's (2008b, p.10) learning and development through participation in institutional practice model.**

This model shows children's learning and development when participating in several institutional settings and contexts in everyday life. According to Hedegaard and Chaiklin (2005), an institutional practice children experience everyday has at least three perspectives that contribute to the conditions for production, reproduction and development. The **societal perspective** is reflected in historically evolved traditions and interests in a society, with children developing by experiencing the activities in the social institutions. The societal perspective is informed by the different institutional practices that children enter. The **institutional perspective** focuses on the general settings such as the home, school, and early childhood centres. Questions such as, 'How do children participate in those different institutions?' and, 'What do they learn through the different experiences and how do they make developmental changes?' belong to the

institutional perspective. The **individual (personal) perspective** characterizes the shared activities of persons in particular institutions. Children's development means several qualitative changes occur in their motives and abilities during different developmental periods. These three perspectives as a whole contribute to understanding institutional practice during children's development, with each aspect influencing the other. Without any single aspect it is not possible to see children's learning and development clearly, each being considered as conditional for the others (Hedegaard & Chaiklin, 2005).

This current study focuses on family practice, which is the first important institution for a young child. In terms of Hedegaard's (2008b) model, individual practice in a specific family means it is unique for that family. The child itself has his/her own motives and interests connected to the activities. Regarding this research focus, the child's personal motives and efforts in his/her Mandarin as bilingual heritage language development can be seen as personal practice, whereby they indicate their intentions and inclinations through action. It is important for parents to realise the intentional activities that lead to the appropriation of competencies and motives of their children. Cultural-historical researchers need to note the conflicts between children's intentions and what they cannot realise (Hedegaard, 2008c). Recognising conflicts can also be a way to understand the interactions between children and other family members.

Institutional family practice reflects children's social interactions and shared activities with other family members, and how they participate in weekend school activities, which are relevant to the research question, "What other interactions between parent and child appear to be important in supporting children's Mandarin development?" To some extent, this kind of family practice is conceptualized based on traditional and historical customs, which consist of shared meanings and knowledge for several generations of family life. This addresses the research question, "What are the strategies parents use to support their children's bilingual heritage language development in relation to their cultural beliefs about child-rearing and learning?"

Societal family practice means that families take part in a specific community and other societal institutions. The child engages in community activities with parents, which can

be seen as a societal aspect. With regard to this current research, the researched family engages in Chinese community activities and some traditional Chinese festivals and ceremonies. This relates to the research question, "What are the strategies parents use to support their children's bilingual heritage language development in relation to their cultural beliefs about child-rearing and learning?" Additionally, Hedegaard (2008c) argues that "traditions in a society influence the conditions for children's activity and the norms and values of those adults who have responsibility for guiding, supporting and restricting children's activity" (p.34). Everyday family activities should be examined in order to address the research question, "How are family strategies related to their cultural beliefs about child-rearing and learning?"

According to (Fleer, 2008b) and Hedegaard (2008b), children's development takes place through participating in societal institutions, such as weekend schools, child care centres and the home. Thus, institutional practice must be researched in order to understand children's language development. This study aims to understand children's heritage language development in the home and language school. Parents have the advantage of being able to draw upon their native language as a resource to assist their children's bilingual heritage language development in the English majority Australian society. Thus, the home is a necessary site to be researched and compared to Chinese language schools. Looking at the social situations of the institutional settings provides the opportunity to examine the qualitative changes in children's motives and competences in language use.

4.2.4 Research strategy: Cultural- historical case study of everyday lives within the family.

✚ Definition

Case studies are used in qualitative research as a research strategy whereby researchers focus on a unit of study known as a bounded system (Gay, et al., 2009). It is a kind of "logic design" that investigates a contemporary phenomenon within its real-life context. The bounded system is focused by using multiple sources of evidence and all-encompassing research methods (Yin, 2003, 2009). A case study research strategy is appropriate when the researcher wants to "answer a descriptive question (E.g., What

happened?), or an explanatory question (e.g., How or why did something happen?)" (Gay, et al., 2009, p.427). The researcher focuses attention on an in-depth exploration of the actual case. With regard to the current research, the main question that was explored concerns the ways families are involved in their children's Mandarin as a heritage language development. Furthermore, some relevant subsidiary issues are identified regarding play activities and social interactions in the family context. The study focuses on the in-depth exploration of two families as a collective case study, in the Chinese-Australian cultural group, and using the dialectical-interactive framework. Freebody (2003) points out that the goal of a case study is generally "to put in place an inquiry in which both researchers and educators can reflect upon particular instances of educational practice" (p. 81). The goal of this cultural-historical case study is to find out how families support young children's Mandarin as a heritage language development in the Chinese-Australian family context.

🔥 Characteristics

According to Gay, Mills and Airasian (2009), case studies can be characterised as particularistic, descriptive, and heuristic. In consideration of the research questions, this study describes and examines the ways families support children's heritage language development by using cultural-historical theories of child development as a theoretical framework. Adapted from Yin's (2003) key points of case study research design, the components of this research design are shown in Table 4.2.

Table 4.2

Case Study Research Design

Study question	The ways parents support children's heritage language development in three Chinese-Australian families.
Study propositions	In this study, immigrant parents' interactions with children are central to children's bilingual heritage language development. These interactions are shaped by families' values and beliefs, which are affected by their society and culture. In this way, the study is imbued with a cultural-historical approach to research.
Embedded units of analysis	Family 1 and Family 2 are Chinese-Australian families with 4.5-year-old girls who were born in a Melbourne. Family 3 is a Chinese-Australian family with a 4.9-year-old boy who was born in Melbourne. The units of analysis are families' values and beliefs related to children's bilingual heritage language development, the interactions between parents and children, the interactions among siblings and parents, and play or other family activities that support children's heritage language development.
Logic linking the data to the propositions	Pattern matching as an analytic technique (Yin, 2003) ↓ Statement or initial proposition of the cultural-historical theories ↓ Reporting each individual family's case story ↓ Comparing the findings of three cases to cultural-historical theories ↓ Identifying the findings as similar or dissimilar to cultural historical theories and analyzing data with a dialectical-interactive approach.
Criteria for interpreting the findings	The findings of three cases are interpreted in terms of cultural-historical concepts about child development within the cultural-historical context.

↓ Basic characteristics of the study design

Concerning the above discussion, as adapted from Yin (2009, p.57), Figure 4.2 provides the basic type of case study design that I will use in the current study, in order to think methodologically in relation to cultural-historical theory.
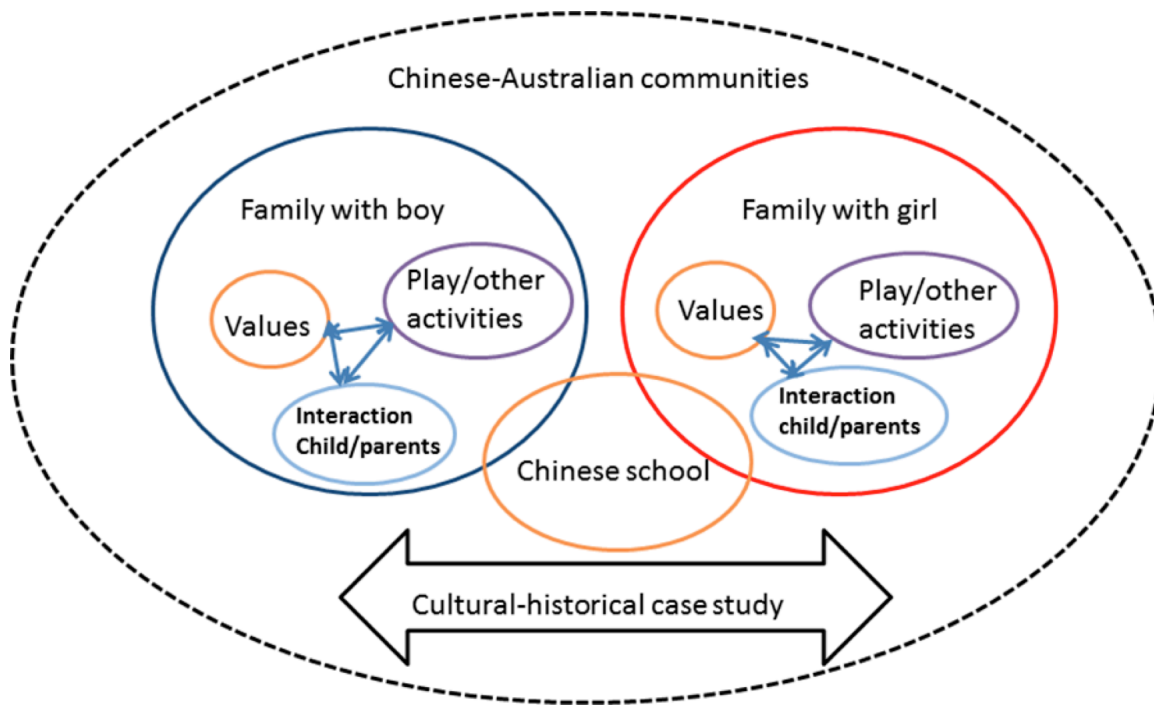
Figure 4.2. **Basic characteristics of the study design.**

How will the three families' everyday activities be investigated in order to reach the research aims? The researcher's role, the research method and research procedure are very important to the study. These are discussed in the next section.

4.3 The Role of the Researcher

In the study, I conceptualise myself as being within the context in which the participants' activities take place, which is different from traditional research. Traditional psychological research mainly places the researcher as a "fly on the wall", where the researcher is situated outside the research context, rather than interacting with the research participants and relating to the research participants. Hedegaard (2008c) argues that,

> In cultural-historical research, the researcher is positioned within the activity as a partner with the researched person. In this way, it is possible to examine how children contribute to their interactions with adults and other children within the

family, community and educational institutions in which they are involved (p. 30).

Hedegaard (2008c) also makes a case for the use of appropriate methodology when conducting cultural-historical research, where the researcher is situated within the activity as a partner of the researched persons whilst researching children's development in everyday settings (See Section 4.2.2). In this study, I consider myself as an active research partner building up good relationships with research families in order to have a strong understanding of their everyday practices.

4.4 Research Participants and Research Field

4.4.1 Research participants.

In the overall study, three focus families in Chinese-Australian communities were invited to the study for a period of eight months. Both parents are from China and speak Mandarin. The focus child in each family was at the age of 4-5 years old. Mandarin was their first language when they were born. All children were enrolled in English-based childcare centres and attended weekend Chinese school programs in Melbourne. The Chinese school provides a Chinese learning program from early childhood to year 12 on weekends. Flyers were distributed in the preschool classrooms inviting families to participate in the study. I selected children based on the following criteria: (a) They were born in Australia; (b) Their predominant language which they have been exposed to since birth – called their bilingual heritage language – is Mandarin. When they began kindergarten, English became the dominant language; (c) Their parents are first generation immigrants to Australia.

Detailed information about the research participants in this study is provided in the following Table 4.3.

Table 4.3

Information about Research Participants

	Focus child	Siblings and Family position	Parents	Home language	Chinese school	Research period	Age of starting childcare
Family 1	Yi, born in Melbourne, A girl 4.5 years old Goes to childcare five days, from 8:30am to 6:00pm	One single child	From Shanghai Immigrated to Australia 6 years ago	Mandarin	Two years experience	Sept, 2009-April, 2010	Age 3
Family 2	Lin, born in Melbourne A girl 4 years old and 3 months Goes to childcare four days from 8:00am to 5:00 pm	Two girls. Younger child, Meimei 1.5 years old.	From Taiwan Immigrated to Australia more than 6 years ago	Mandarin most of time, English on occasion	One year experience	Sept, 2009-March, 2010	Age 2.5
Family 3	Wen, born in Melbourne A boy 4 years and 9 months Two days a week at childcare	4 children Wen - second child His brother, 8 years old His young sister, 3 years old Young brother, 9 months old	From Yangzhou Immigrated to Australia ten years ago	English - main language, Learning Mandarin	One and a half years experience	Nov, 2009-April, 2010	Age 3

4.4.2 Research field.

As researcher, I collected data in the field following five steps. Phase One of the study involved the orientation and negotiation of access to the field site though phone calls and a visit to the family, to ensure that a level of trust was developed among me, the researcher, and the participants. These phone calls were retrospectively recorded in a personal research journal, which provided a means to reflect and generate hypotheses to guide future interventions or the direction of the research. Beginning with the first interview, I explained the goals and procedures of the project and had the parents sign

informed consent forms. The family was assured that their participation was completely voluntary and that all responses would be kept strictly confidential.

Phase Two of this study involved the parents taking photos of their child's activities within the home over the first two-week period of the research. These photos were to be taken in the natural home context and of activities that the parents believed to be important to their child's language or bilingual development. I selected and printed a few photos and categorized them into different groups in terms of the activities and research aims.

Phase Three of the study involved a second video-recorded hour-long interview with each family, which was completed based on the printed photos and conducted in Mandarin. This interview aimed to gain a basic understanding of family beliefs and practices in children's language development at home.

Phase Four of the study involved over 70 hours of video recordings in total. The video recorded the focus children at home playing and doing important family everyday activities at five different times. It also covered two two-hour Chinese classroom video observations for each focus child. In both settings, 'naturally occurring' interactions were recorded, when the children were engaged in normal everyday activities. After each video visit, I documented the photographs, transcribed the video data sets, and carried out some initial interpreting and translations into English.

Phase Five of the study included the final video interview with each family according to the transcribed video data, in order to get families' feedback and comments on my understanding of the family activities.

The procedure basically consisted of a video-based interview-observation-interview, which was driven by a cultural-historical approach. This was the wholeness approach to the research. Why and how the research procedure was conducted in this way is discussed in the next section.

4.5 Research Tools and Methods

When I entered the research field, the aim and the guiding cultural-historical theory framed the ways interaction could take place between me and the research families in the concrete social situation. As a dialectic-interactive methodology captures a 'wholeness' and 'dynamic' approach to research, I used multiple research methods in this study.

4.5.1 Dialogue-based interview and photography.

According to Fraenkel and Wallen (2006), interviewing is an important way for researchers to obtain data they cannot acquire from observation alone. Interviewing people is a purposeful interaction to find out what they think and how they feel about something and makes up for the limitations of digital video observations working within a 180-degree frame. It seeks "people's formulation of their experience and conceptualisations that …[are] being considered" (Hedegaard, 2008d, p. 49).

Interviews should not be seen as a simple process of an interviewer asking questions and receiving answers from the participant, but as a dialogue involving the sharing and interpretation of knowledge between the researcher and the researched participants (Hviid, 2008). This is driven by a cultural-historical approach. The researchers need to position themselves in the researched context, including the interview setting.

During the first weeks of field work, each researched family was asked to photograph or video record family activities that parents believed important for their children's Mandarin learning and development. After developing selected photographs, I interviewed the whole family for the final data contribution. The one to two-hour interviews with parents made it possible to examine their attitudes, feelings, concerns, and values about child-rearing practices before video observation (See Appendix C). According to Askey and Knight (1999),

Interviewing is a powerful way of helping people to make explicit things that have hitherto been implicit-to articulate their tacit perceptions, feelings and understandings. (Arksey & Knight, 1999, p.32)

Furthermore, the first interview was also useful as I used this opportunity to get to know the research families, and they started to feel comfortable with me. This was very important for the next research step – video observation. It was also my purpose to capture natural family practice where possible.

The video observations recorded family activities at different times and represented examples of the families in order to seek information on their family beliefs and values. This particular approach is very important for generating a dialogue on pedagogical practice. On viewing video clips the parents had produced and some selected video clips that I had recorded as examples of family activities at the final stage of field trip, parents were able to discuss their beliefs and practices in relation to the activities that they engaged in. Using the method of interviewing families at the final stage of data collection, it was possible to note demands or motives and through this gain insights into family pedagogical practice. I purposively created interview protocols that would generate information on family practices, beliefs and values. Through the final interview with the whole family, it was possible to get their feedback and comments on my understanding of some typical family activities, which I had determined after the video observation.

4.5.2 Video observation.

This study draws on Vygotsky's cultural-historical theory, with a focus on the inner-relationship between language, development and thought, in order to examine how parents contribute to their children's Mandarin as a bilingual heritage language development. The purpose of the study is to find out what kind of interactions between parent and child are important in supporting children's Mandarin development. Using video collection and observations as a research method helps the researcher to document family practice visually, which allows the researcher to identify various interactions

between parent, child or siblings. Therefore, the main research aim requires video records.

Video observation is a very important method in cultural-historical research. Theoretically, cultural-historical research focuses on studying children in everyday settings and examining different perspectives in order to identify the conflicts within the practices or activities, and the opportunities for children's development (Fleer, 2008d). Video records effectively allow the cultural-historical researcher to discuss data with participants or other scholars, in order to discover different perspectives regarding the practices, motives and demands of participants and other influences within the social situation. In order to find out the ways in which families support preschoolers in acquiring their bilingual heritage language within an everyday home setting, linguistic data is typically collected by audio or video recording of speech during naturalistic interactions. Video records offer the possibility and opportunity to identify family interactions (talking, doing, gesturing, listening), and to observe family strategies/contributions to children's language development. Additionally, video recording provides language researchers with "denser linguistic information" than field notes, as they ideally record all speech uttered (Dufon, 2002, p.44). Thus, cultural-historical theory drives the use of video research.

Goldman (2007) explains that "the use of video in research offers a panacea to the discontent with behaviorism and the cognitive revolution, demonstrating that learning is much more than an individual's mental input and output. It is the search for methods to bridge consciousness and experience" (p.23). In other words, video research enables multiple viewpoints and multiple uses. Most importantly, it provides a record of "the dynamic and evolving nature of the social situations" and interactive events in which children are located and construct their knowledge through, across institutions such as families, community groups, and preschools (Fleer, 2008d, p.106). The current study chose video observation as one of the research methods to apply Vygotsky's (1986) theoretical framework on thought and language, using it as the foundation for case study strategies on the study of preschoolers' bilingual heritage language acquisition within the Chinese-Australian family context. According to Vygotsky's (1986) cultural-historical approach, human developmental processes take place through participating in

99

cultural, linguistic, and historical contexts such as family life, peer group interaction, school settings and various other environments (Lantolf & Thorne, 2007). This study used videotaping to record the participants' developmental situation in a natural, everyday, shared family context in order to explore the role of families' social interactions in supporting preschoolers' bilingual heritage language development. Video collection is a useful way to record these kinds of natural exchanges and explore everyday, shared family activities; it enabled me to investigate families' dynamic interactions with their children using Mandarin.

Video records can be used in many different ways for research purposes. In this case study, video clips can be shared with participants so as to gain deeper insights from different perspectives (Fleer, 2008d). In this cultural-historical research, the video clips of observations are available for parents and children during the interview session. After several video observations, formal interviews were arranged with parents and children. These kinds of data are useful for parents to discuss their child-rearing practices at home. This provided me as the researcher with the opportunity to capture verbal and non-verbal cues while I focused on observing the children's interactions with others.

Moreover, video data provides a cultural context for sharing concerns, beliefs, attitudes, and pedagogical practices (Goldman, 2007). It stimulates the researcher and other experts to create shared perspectives and ideas that reflect the social interactions of the given situation and the child's development. In the current study, video data provided me with long segments of interaction to analyse, in order to understand the particulars of how communication proceeds in the context of face-to-face interaction, and how children acquire heritage languages through shared family activities (Barron, 2007).

The significance of cultural-historical researchers using video technology is the ability to capture the dynamics of a child's participation in different institutional settings such as within the family, the school and other communities. The dialectical-interactive framework requires the researcher to examine the dialectic relationships between personal motives, social situations and institutional practices. Video-based observation provides a useful way for cultural-historical researchers to understand the child's social situation in terms of their development and their family's perspectives. Therefore, using

100

video observation is an effective way to allow the researcher to share and discuss with participants the data, and identify the conflicts and interactions within the family activity. Dialectically, the research family also is able to rethink their family educational practice by sharing the video data with the researcher.

In this research, video observation focused on the research families' everyday typical activities including children's work, play, television viewing, bedtime stories, dinner, and morning tea/afternoon tea. Over 70 hours of video were taken in total. I video observed the focus children at home playing and doing important family everyday activities, as well as twice at weekend Chinese school.

Rosenstein (2002) states that good observations should include nonverbal language, such as movement or body language, which contribute to the understanding of a person's state of mind during an interaction. Therefore, educational researchers who work with videos have access to verbal and nonverbal cues and are able to observe each point during social interaction at the research site.

Because of physical constraints, video cannot show every movement that has occurred, but only the range permitted by the camera lens. It is a fact that "the camera's field of vision is so much more limited than the human eyes" (Tudge, 2008, p. 92). Furthermore, Goldman (2007) offers the notion of "*being there/being with*" for video research. "*Being there*" means that the viewer is able to make sense of what is happening in the video. "*Being with*" means that the viewer can find the whole truth of the given situation. Goldman argues that "it is more important for the readers to 'be with' rather than 'be there'" (2007, p.30). Thus, when considering the limitations of range and the idea of "*being with*", how to video the social setting and where the researcher points the video camera become very important during video observation. In the current study, two cameras were organised during field visits. One focused on the researched child's interactions with others, and the other filmed the whole setting, capturing the family/school activities and the interactions between parents, teachers, children and siblings as much as possible. This approach was designed to capture children's interaction with others in the family activities in a cultural-historically appropriate way.

4.5.3 The wholeness approach – data generation.

In summary, the interview-observation-interview method allows for a wholeness approach to understanding family pedagogy and the child's Mandarin development in the home context as shown in the following Figure 4.3.

Video Interview

Each researched family was asked to photograph/video record family activities that parents believe are important for their children's Mandarin development. After developing photographs and video clips, I interviewed the whole family as the final data contribution before video observation

Video observation

Video observation focuses on the research families' everyday typical activities including children's work, play, TV, bedtime story, dinner, morning tea/afternoon tea and Chinese school.

Final video interview

Interviewing families through showing the example of family activities, in order to note demands or motives and through this gain the insights into family pedagogical practice

Figure 4.3. **The wholeness approach.**

The research began with an interview with the researched families using photos and video clips the families took within the first two weeks, in order to determine the family's values and beliefs on children's bilingual heritage language development. The first interviews helped me have a basic understanding of the researched families. This created a foundation which shaped the next stage. The video observation, as a second step of data generation, helped me to capture typical everyday family activities within the home context and children's performance in the Chinese classroom. As Hedegaard (2008c) has elaborated, "research that is culturally and historically framed takes into account all of these multi-dimensional elements of children's participation in everyday life" (p.30). Thus, in order to study children's language development within a home context, it is necessary to video everyday activities which children engage. In doing so,

it is possible for the researcher to understand families' child-rearing practices in terms of children's home language development, and to notice the crises caused by societal change, and the change is social relations in new institutions children participate in (Hedegaard, 2008c, p.32).

In order to develop a good understanding of the historically-located family practices in the everyday home context, it was necessary to arrange additional interviews. After the initial data analysis, I chose some important video clips covering typical everyday activities within the home context to show during a second interview with the research families. On the one hand, this enabled me to gain further knowledge on why the family organized such an event in the everyday context. On the other hand, I was able to confirm my initial understanding of the data with the researched family and get the family's feedback and comments. In summary, I have compiled Table 4.4. to show the whole process of the interview-observation-interview data collection for the three research families who participated in the study.

Table 4.4

Field Work Matrix

Field work	Video interview At home 1 Voice recorder 1 Video camera	Video Observation At home 2 Cameras	Video observation At school 1 Camera
Visit 1	Orientation Consent Get to know each other (Lin, Wen and Yi)		Recruit participant Distribute research flyer
Visit 2	Using photos (Lin, Wen and Yi)		Consent from other children's parents in the class
Visit 3		Morning activity (Lin,Wen and Yi)	
Visit 4		Sunday afternoon activity (Lin and Wen)	
Visit 5		Afterschool activity (Yi and Wen)	
Visit 6		Dinner/after dinner activity (Lin and Yi)	

Field work	Video interview At home 1 Voice recorder 1 Video camera	Video Observation At home 2 Cameras	Video observation At school 1 Camera
Visit 7			Chinese classroom video observation (Lin, Yi and Wen)
Visit 8			Chinese classroom video observation (Lin and Yi)
Visit 9	Using video clips and photos (Lin, Wen and Yi)		
Additional Data	Parents also took photos of activities that they believed important to their children's language development. Parents videotaped their bedtime stories, holiday play activities, dinner times, their Chinese festival activities, etc.		
Focus	Family practice Family perspectives Family feedback and comments Values and beliefs	Family activity Interaction Motives Conflicts Transitions	Children's behaviours Interaction Motives Conflicts Transitions

As shown in Table 4.4, the videoed interviews by a researcher and a research assistant generated data for each research family for the larger study, complemented by data provided by the parents, who took over 200 photos of their child's activities within the home. Also, additional data was generated by parents, who videotaped important family activities they believed were useful to their children's Mandarin development at home, totalling 40 video clips. All the interviews were conducted in Mandarin.

4.6 A Wholeness Approach – Data Analysis of Research Protocols

Analysis in case studies within the dialectical-interactive framework consists of dealing with the data from the observations, interviews and other data sources. In this study, data analysis followed five steps: managing data, developing observational and interview protocols, classifying the data and interpreting data (Gay & Airasian, 2009).

4.6.1 Managing data.

Data management involved creating and organizing the data collected during the study. All the field notes, interview transcripts, comments and reflections were put into different folders by date. All data were downloaded to my computer and two files were

created. The first data file was kept intact for interpretation and translation. The data in the second file were broken up into clips of activities. Then, I transcribed these activities, which were generated into video clips in terms of the research questions, themes and cultural-historical concepts such as play, work and storytelling. These video clips of activities are directly linked with the interpretations already made.

4.6.2 Developing interpretation protocols.

The written results of the research process can be called research protocols; in this study, these protocols foregrounded how parents and children joined in home activities. They formed a kind of "field text" for a first qualitative interpretation (Denzin & Lincoln, 2005). In this qualitative study, the development of interpretation protocol included the transcripts of the interviews and video data sets, and the translation of transcripts into English.

In a cultural-historical approach to research, it is necessary to record how parents and children interact in the activities. According to Fleer (2008b), it becomes important for the researcher to generate protocols which provide valuable insights into family practices that shape or are shaped by children, and support language potentialities. This study mainly focuses on documenting family institutional practice, in order to investigate the family practices in which children participate in daily life, and find out how parents contribute to children's Mandarin development in the Australian context. As Fleer (2008b) argues, "documenting the institutional practices allows for a better understanding of the conditions that the institutions give for the different kinds of interaction and activity – thus influencing the 'potentiality' for the development of children" (p. 66). The protocols cover the context of activity, the meditating materials, the family environment, the dialogue of participants, the interactions, etc. This reflects the wholeness approach, which positions the researcher as developing protocols that "go beyond the individual and into the settings in which the individual resides" (Fleer, 2008a, p.103).

4.6.3 Classifying the data.

Data classification is another important step for data analysis, and is achieved by categorising and coding pieces of data and grouping them into themes. Adapting the ideas from Tudge (2008), I first divided the family activities as "focal" and "other" in terms of the research questions and the typical events amongst the three research families, as seen in Table 4.5. The focal activities were the main focus of my attention, such as play, household activities, storytelling and dinner activities, as highlighted in Table 4.5. These focal activities will be furthered analysed and discussed in the next chapters (Chapters 5, 6, 7 and 8). Some school observation data has been considered as auxiliary data supporting the home data analysis.

Table 4.5

Everyday Family Activities

Content	Three families everyday practices within a home context		
	Family 1 (Yi)	**Family 2 (Lin)**	**Family 3 (Wen)**
Role Play	Zoo play	Restaurant /supermarket/doggy games/teacher-student role play	Wildlife zoo
Toy play	Computer games-Wii/Cars world	Playing with dolls	"Guess who" cards game Computer games
Academic	Writing and reading Chinese home work Reciting Chinese poems	Writing Chinese strokes Reading Chinese pinyin Learning numbers	Writing Chinese characters on small board Doing Chinese home work Reading Chinese newspaper with parents
Work Household activities	Hanging up clothes Mopping the floor Setting up the dinner table	Cake cooking	Gardening Looking after younger brother
Book activity	Bedtime storytelling Literacy exercise books	Bedtime storytelling Reading Chinese stories and English stories in Chinese	Bedtime storytelling Reading Chinese children's books.

Arts	Sand art Drawing	Drawing	Paper artwork Singing
Culture	Chinese Moon festival	Chinese cooking/ Moon festival	Making Chinese handicrafts with mother
Conversation	Dinner/afternoon tea	Dinner/lunch/morning tea	Dinner/afternoon tea
Family entertainment	Watching DVDs/TV programs Playing in the park	Watching DVDs/TV programs Playing in the park	Watching TV series

4.6.4 Interpreting the data.

Data interpretation is the final and most important step of analysis, as it addresses the need to synthesise the organised data into general written conclusions (Gay, et al., 2009). It does not answer the question, "What is the data?" but "What is the meaning of the data?". In this step, the researcher moves from the "field text" to a "research text" (Denzin & Lincoln, 2005, p.26). In order to answer the research questions, I identified and conceptualised the important themes in families' support of children's bilingual heritage language development from the cultural-historical perspective.

By using the wholeness approach, I interpreted the data dialectically from a common-sense interpretation through to a synthetic analysis. Adopting Hedegaard's (2008b) ideas of different forms of interpretation, I developed the dialectical visual analysis approach. I analysed the visual data from a *common-sense interpretation*, through a *situated practice interpretation* to a *thematic interpretation*. However, to address the research purpose, the study also needed a fourth spiral of synthetic analysis to draw conclusions on cross-family pedagogy.

The progression of visual data interpretation is a kind of "ladder of abstraction" (Carney, 1990, Cited in Miles & Huberman, 1994), whereby the ladders or spirals of progress shows our progress of understanding of the visual data conceptually, to reach our research destination by answering the research questions. Additionally, we need to be aware that the process of understanding is not linear, but is dialectical in essence,

conceptualised as a continuing upward spiral of progress. As the philosopher, Bacon (1985), notably stated, "all rising to great places is by a winding stair". Each step of visual data analysis links together, showing a dialectically interpreted progress of understanding.

The analysis covered four spirals of interpretation in order to understand the data clearly and deeply. Ash (2007, p.209) claims that "researchers must be explicit about their rationale for generalizing from very specific, microgenetically detailed, episode-based analyses, which, typically, are taken from relatively small data sets". In this case, the issue of most importance is the ability to justify the commonalities from small data sets that represent all three families. Once commonalities have been found through synthesis of the data sets, I am able to identify representative aspects of a model of family pedagogy for this study. A convincing interpretation includes using "several levels of analysis in a simultaneous and interlinked way" (Ash, 2007, p. 209). Vygotsky (1997e) also confirms academician Pavlov's definition of the role of each science, that "and as the simple and elementary is understandable without the complex, whereas the complex cannot be explained without the elementary, it follows that our position is better, for our investigations" (p.45). Through a dialectical-interactive approach, the challenge of data interpretation is to find out how relational aspects of interaction are intertwined and are consequential for children's language development within a small data set. In the next section, the wholeness process of analysing the data will be discussed in detail from different spirals of interpretation.

4.6.4.1 First spiral: The common sense interpretation – different perspectives.

In this spiral, I attempted to comment on my understandings of the interactions in the activity setting (See Appendix D). This kind of interpretation does not focus on the theoretical concepts, but rather obvious relations which are drawn out, where simple patterns in the interaction can be identified (Hedegaard, 2008d). The data is objectively interpreted and the researcher is outside of the shared activity settings. That is, I did not interpret the data using any concepts or theories; instead, each focal activity was objectively identified and commented upon. This helped to get an initial sense of the data. It addressed the context and participants, in order to meet the requirements of

dialectical research concerning contextualisation and conceptualisation. It is important to situate the participants "not simply in their physical context but also in their temporal context" (Tudge, 2008, p.108). Ongoing descriptions of the interactions and social relations between the participants are important because social processes can change over time (Gay, et al., 2009). In this study I used chronological ordering of settings and events, identified the embedded unit of analysis in the three research families, and described how participants handled the situations and explained their actions.

Additionally, as discussed early, the wholeness approach requires the researcher to interpret the different perspectives of participants' activities. Fleer (2008a) argues that "a wholeness approach seeks to capture all perspectives so that development can be conceptualised beyond something occurring within a child's head or body and move towards a dialectical relation between the child and his or her social situation across time and institutions" (p. 103). In this study, at the first spiral I initially interpreted the data from the child's, parents' and researcher's perspectives in each particular event. This was a kind of preparation for the next spiral of progress – situated practice interpretation.

4.6.4.2 Second spiral: Situated practice interpretation – theoretical concepts.

After common-sense interpretations had been made from different perspectives, the data were ready to be located into situated practice analysis (See Appendix E). With regard to this spiral, Hedegaard (2008d) clearly states that, "the situated practice interpretation generally focuses on an interpretation of the practice in an institution in relation to specific children and caregivers. Dominating motives, interaction patterns and problems can be explicated at this level" (p. 58). Drawing on the work of Hedegaard (2008d), and later Fleer (2008c), as well as cultural-historical theory, the interpretation was based on the cultural-historical concepts outlined in Chapter 3 (Theoretical framework) on children's language development within shared family activities. The second spiral of the analytical framework included the following aspects.

Table 4.6

The Second Spiral of the Analytical Framework

Situation explanation *(Social Situation)*	Extending to other situations
	Demonstration before child participates
	Demonstrations during child participation
	Directing attention to process
	Researcher's reflection
***Motives*/Competence**	Parents/Child/Teacher/Other peers
	Engagement/intentions/orientations/perspectives
	Competence of language uses
	Passive/Positive
	Researcher's reflection
Conflicts Transition **(Values and Interests)**	Demands in family practice that children meet/allowance
	Demands from children's perspectives
	The crises children meet through conflicts and transitions
	Comparison between different settings/activities
	Researcher's reflection
Interaction Patterns *(Mediation)*	Parents/children's position in the activities
	Language use
	Roles
	Action/competence/appropriation (Regulatory)
	Researcher's reflection

The four themes above were designed in terms of the theoretical conceptions. This second spiral of interpretation process operates on the theoretical level to understand the data.

It is first necessary to explain the context of each activity, which is helpful in understanding the relationships between the child and other adults participating in the activities. The context of the situation is revealed in order to present the reasoning behind the actions of the researcher. Vygotsky mentions that it is valuable to recognise

the social situation in which an activity occurs, as it is the result of the child's own interpretation and reaction to the specific environment (Hviid, 2008).

Activity is always linked to motive and motivated by social or biological needs and desires. In other words, there can be no activity without motive to drive and guide it (Leont'ev, 1993). The child performs the actions and behaviours, which indicate potential motives and interests. To investigate the motives of children and parents is to determine how the child engages in play experiences and everyday activities. Thus, the motives for activity need to be taken into account when researching bilingual heritage language social interactions.

The conflicts between different participant's intentions in the activity offer pedagogical opportunities. That is, conflicts and transitions have to be acknowledged because they show new learning and the development that can be expected. The conflicts can be found in the child's social situation as a result of the different values, needs and interests in different institutional practices such as family, school, and communities, which in turn can generate crises (Fleer, 2008d). Exploring the conflicts of a situation is a way to gain insight into the different participant's perspectives, motives and values.

This present study seeks to examine how parents contribute to the shared family activities in order to support young children's bilingual heritage language development. The analysis of interaction is an important part of the interpretation, so that the ways families support their children's language development can be discovered.

The situated practice interpretation is "a double process that leads to formulating, reformulating and extending of the thematic categories and thereby leads to new insight both in the concrete analysis and the formulation of the ideals (the general concepts)" (Hedegaard, 2008d, p. 58). In this spiral, the analysis of each shared family activity is developed leading to a deep understanding of each family's practice as a whole. This process culminates a descriptive narrative that includes a theoretical and conceptual perception of each focal activity within each family practice.

4.6.4.3 Third spiral: Thematic interpretation – research aims.

The third spiral is based on the situated interpretation. It does not identify a particular event, but focuses on meaningful patterns for each family in relation to the research aim (See Appendix F). New theoretical conceptual relations are formed through this interpretation scheme (Hedegaard, 2008d). The theme is identified by looking across data sets to see if many similar instances are evident, so more confidence can be placed in the claims being made. This spiral of analysis moves to a deeper conceptual and theoretical lens. It directly links to the research questions and aims. Specifically, I have foregrounded the family perspective and analysed the family pedagogical practice at this spiral of interpretation. This is a kind of systematic analysis of individual family activities. With regard to (Hedegaard, 2008d) framework, a schema has been designed to systematically analyse individual family activities.

Schema for analysing parents' contributions to preschoolers' bilingual heritage language development in home practices

- The intentional orientation of the researched family
    - Demonstrates what kind of important activities are related to language development
    - Values of parents in children's language development
    - The demands of parents and reasons for these
    - What do they allow?
    - The interests/motives of the child
    - What concepts are used?
- The interaction between participants
    - What language is mainly used at home? Why?
    - What interactions and activities do the participants constrain?
    - What is the child's/adult's position in the activities/communication?
- The conflicts and transitions between different participants' intentions in the activity
    - How do the conflicts and transitions take place?
    - How do the parents create motives?

- How do the parents support the language activity?
- The strategies the parents apply in the activity
  - The competence of the child's language
  - How do the parents handle social interactions and communication?
- The conclusion and indications in the activity
  - Any possibility of development
  - Any implications for practices

In order to gain new insight into the data, I systematically generalised the basic situated practice interpretations produced in the second spiral of analysis. The connections were made in relation to the theoretical concepts and research aims. The thematic analysis provided the key linkages and patterns found in the way families support their children's language development within the home context.

4.6.4.4 Fourth spiral: Synthetic analysis of family practices across data and all families.

As Vygotsky (1997e) argues, "the crisis of methods…begins precisely when they [methods] turn from the foundation, from the elementary and simple, to the superstructure, to the complex and subtle" (p.45). One of the greatest challenges when dealing with qualitative, multiple, disparate data is how to integrate them together into a whole in order to reach the research aims. The interpretation at this spiral involves the integration of the multiple data from each shared family activity. It requires the synthesis of the multiple data sets across families, creating conceptual models of family pedagogy. Based on the research questions, the data chapters in the thesis are named in accordance with the different family practices identified, including role play, shared book reading and household activities in the home. The chapter for each practice displays the findings from the multiple data sets of the three researched families, integrating the data to reveal family strategies relating to children's heritage language development (See Figure 4.4).
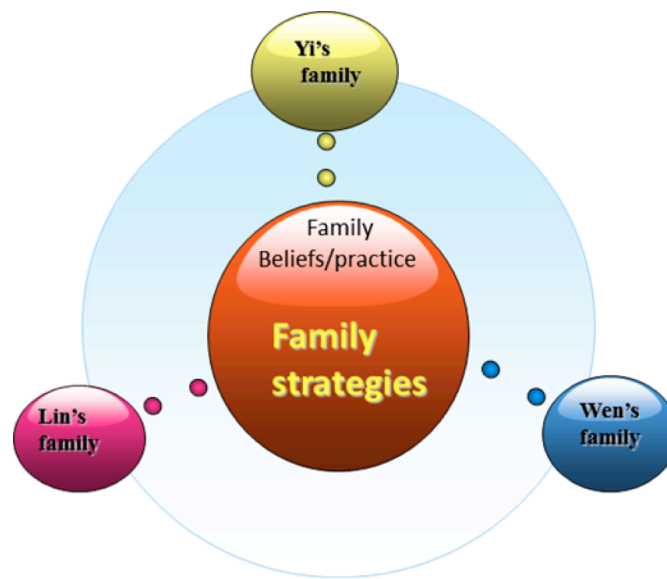
Figure 4.4. Synthetic analysis of family practice.

In summary, the kind of "ladder of analytical abstraction" (Carney, 1990, cited in Miles & Huberman, 1994, p.92) has been shown through the progression of interpretation. Vygotsky (1997e) also argues that the research analysis can be called *Reflexes*, which "do not exist separately, do not act helter-skelter, but band together in complexes, in systems, in complex groups and formations that determine human behavior" (p. 39). I began with each single activity and interpreted it from different perspectives, including the child's, parent's and researcher's perspectives, based on the developed interpretation protocols. Then, I moved to the next spiral of situated practice interpretation with regard to the theoretical concepts. The theoretical themes and trends were identified, including situation explanation, motives, conflicts and interaction patterns. At the final spiral of interpretation, the cross family data were synthetically analysed. The following Figure 4.5 shows a dialectic analytical model of family practice.

Four spirals of visual analysis

4 Synthesis analysis of family practices

Integrating the multiple data

Synthesizing multiple data sets across families creating conceptual models of family pedagogy

3-Thematic interpretation

Systematically generalizing the constituent parts

Normalising a particular of each family interaction to reach the research purpose

Identifying the theoretical themes and concepts

Cross-checking and revisiting individual data set – Matrix analysis of family practice

2-Situated practice interpretation

Writing a descriptive narrative including theoretical perception of a situation

Displaying data from different perspectives

1-Common-sense interpretation

Exemplifying initial analysis of individual piece of visual data and writing analytical notes on linkages to different perspectives

Developing the interpretation protocols

Reconstruction of video data, photographs and individual transcripts and translation

**Starting point
of interpretation**

Figure 4.5. **A dialectical analytical model of family practice.**

Figure 4.5 shows the upward spiral progress of data analysis as a dialectical process from common-sense interpretation to final synthesis. The analysis began with each single activity and interpreted it from different perspectives, including the child's, parent's and researcher's perspectives, based on the interpretation protocols developed. Then, I moved to the next spiral of situated practice, where my interpretation was based on the theoretical concepts. The more complex theoretical themes and trends were

identified, including situation explanation, motives, conflicts and interaction patterns. The whole analysis process moved in a spiral line.

4.7 Ethical Considerations

All education research must take into account the ethical issues (Babbie, 2002), but this is particularly salient when video observing and studying very young children in their homes. According to Denzin (1989),

> …our primary obligation is always to the people we study, not to our project or to a larger discipline. The lives and stories that we hear and study are given to us under a promise, that promise being that we protect those who have shared them with us (p.83).

Thus, in this research I have had to pay attention to ethical issues, including voluntary participation, anonymity and confidentiality. Before beginning the data collection, I applied for ethical approval (See Appendix A) for a research project involving humans and received a written letter of approval from Monash University Human Research Ethics Committee (MUHREC). It is worth mentioning that the ethical approval of the current study was a part of a larger project under the supervision of my PhD supervisor, Prof. Marilyn Fleer. The larger project is called "A cultural-historical study of childhood and children's development in Australia". Participants signed an informed consent form in English or Chinese (See Appendix B) for the research assuring *voluntary participation and confidentiality*, and I made every attempt to ensure that they continued to be aware that their participation was revocable. In respect of *anonymity*, I decided to use pseudonyms and eliminate any potential identifying information that could lead others to identify or locate the participants. Additionally, I tried to make participants, including young children, feel as comfortable as possible in answering the questions during the interview and video recording, with the right to refuse answering any questions and to stop the interview and video recording at any time.

4.8 Chapter Conclusion

In conclusion, there were three important features of this study with its dialectical-interactive methodology. These three features are:

a. The research methodology was driven theoretically. In this study, the dialectic-interactive methodology was framed by Vygotsky's cultural-historical theory, since this was deemed suitable for researching immigrant families' support of their children's bilingual heritage language development.

b. Cultural-historical research focuses on studying children in everyday settings and examining different perspectives. Dialectic-interactive methodology requires a wholeness approach to examining the immigrant families' beliefs and everyday practice. In this study, an interview-observation-interview method provided a wholeness approach to find out the immigrant family strategies in raising children bilingually in everyday life.

c. The wholeness analysis has been used to manage and interpret the multiple data sets within the dialectical-interactive framework.

After discussing the methodology, the "research text" can now move to the "public text" for the reader (Denzin & Lincoln, 2005). This appears in the next four chapters. The data gathered from the three research families are presented and analysed.

Chapter 5

Research Family Background, Beliefs and Daily Practices

The influence of environment on child development will, along with other types of influences, also have to be assessed by taking the degree of understanding, awareness and insight of what is going on in the environment into account. (Vygotsky, 1994, p.342)

5.1 Introduction

Three family practices are discussed in the next chapters. This chapter briefly presents each research family's background, and reveals parents' beliefs in their children's language development, in order to answer how the belief in the importance of children's heritage language development is connected with practices in shared home activities in everyday life.

5.2 Family Background

5.2.1 Yi's family.

I met Yi's family at her Chinese school, where Yi's mother was working as a grade four teacher, and was introduced by Yi's Chinese teacher. She was very eager to be a part of the research. One week later, we had our first meeting at Yi's house.

At that time, Yi was a four and a half year-old only child and attended a Chinese school program on weekends. As mentioned in the methodology section, Yi was born in Melbourne. She was enrolled at a local child care centre from Monday to Friday between 8am and 6pm, which was her English communication environment. Her mother tried to teach her some very simple English words before she started at the childcare centre. Yi and her parents spoke Mandarin most of the time at home.

Both parents came from Shanghai in China. Yi's father migrated to Australia more than ten years ago and her mother has been in Australia for more than six years. Her mother had been a primary school teacher for eleven years prior to migrating to Australia. At the time of the research, she was a Chinese teacher at the weekend school and was enrolled in an adult English learning program and was trying to improve her English as required by the immigration department. Her father ran a cleaning company. Neither parent could speak English well, which was the primary reason that Mandarin was their home language.

They owned their own house in a strong Chinese community and kept in touch with their family in China through regular online phone conversations and visits. On weekends, they met their Chinese friends who lived nearby. They went to the local library together with Yi once a week and selected Chinese books together. During the first visit Yi's mother also showed me Yi's collection of storybooks and her favourite artwork. Most of their storybooks were in Chinese, which they asked their relatives to send from China.

Moreover, Yi's parents encouraged her to watch Chinese and English TV programs in the belief that she could learn from them. For example, every morning Yi watched an English TV program, called Play School.

5.2.2 Lin's family.

I recruited Lin's family through a Chinese cultural school in Melbourne. The teacher helped me distribute the research flyers to families during class. After one week, I received the responses and chose Lin's family. I contacted Lin's father and we arranged the first meeting at Lin's house.

There are two girls in Lin's family. Lin was four and a half years old and her younger sister was one and a half years old at the time of the research. Her parents were from Taiwan and had immigrated to Australia nearly six years before the research. They lived in an English-speaking community and communicated with their neighbours in English. During the data collection period, her father was studying a master degree course full time at University. He had been a sales manager for a semiconductor company for about

15 years before they migrated to Australia in 2004. Lin's mother had finished her bachelor degree in nursing and had a post-graduate diploma. She had worked as a registered nurse for more than 10 years before she lived in Australia, and was now a nurse at a hospital in Melbourne. It was evident that both parents had a high level of English.

Both girls were born in Melbourne. Since the age of two, Lin has begun to attend child care from Monday to Friday between 8am and 5pm, except for Thursday. The child care centre was her English communicative environment. According to her parents, she was very comfortable with her English communication after two years experience of child care centre. However, they worried about her Mandarin abilities. Consequently, they attempted to speak Mandarin to her most of the time at home and only used English occasionally. Every Sunday, they went to Church, where the service was conducted in English, but occasionally they attended Chinese services. Lin also attended a Chinese school for a three-hour program on Saturday morning.

Since the home context was their daughters' principle Mandarin communication setting, Lin's parents decided to talk to her in Chinese most of the time at home. According to her father, Lin was still learning Mandarin. Both parents tried to talk to each other in Mandarin although they were also able to communicate in the Fujian dialect. Lin's mother explained,"我都是和她讲中文，我不会和她讲英文的。"<I always speak to her in Chinese. And I don't speak to her in English at home>. Her father further clarified that,

"她妈妈经常会提醒我讲中文。如果我去幼儿园接她回来时，她会和我讲英文，我也会和她讲英文。经常是她妈妈提醒我要讲中文。"

<When I pick up Lin from the childcare center, Lin normally speaks to me in English. And I respond to her in English. Her mother reminds me to speak to her in English.>

We can see that both parents worked together to keep Chinese as their home language in order to provide Lin with a very strong Chinese communicative environment. When they were asked why they were interested in my research, her father claimed that he was very

happy to share their family story with me and my research would help their children's Chinese learning as well.

In terms of all the visits to Lin's family, when her parents spoke to her in Mandarin, she would respond in Chinese. This means that Lin understood the home to be her Chinese environment. When Lin was asked whether she liked Chinese school, Lin responded, "我喜欢中文学校，我喜欢说中文"。<I like Chinese school and speaking Chinese.> When Lin interacted with her parents she was given the chance to speak and think in Chinese and develop her Chinese language ability. The Chinese language environment that her parents provided for her also influenced her understanding of China and its culture. The daily Chinese communication meant that Lin could understand the significance of using Chinese and attending Chinese school. This echoes Vygotsky's (1994) thoughts that "environment should not be regarded as a condition of development…but one should always approach environment from the point of view of the relationship which exists between the child and its environment at a given stage of his development" (p. 338).

5.2.3 Wen's family.

I met Wen's father at his Chinese school. He was introduced by the school principal. We had a short conversation regarding my research, which he seemed very interested in, and he expressed his willingness to join my research project. He also expected that it would be a good chance for he and his wife to encourage their children's Chinese language development.

One week later, I visited Wen's family and met his siblings and mother. There were four children in his family. Wen was four years and eight months old. He had three siblings, one elder brother (William, 8 years old), one younger sister (Lili, 3 years old) and a younger brother (Michael, 9 months). Wen had been going to a childcare centre near their home, where English was spoken, since he was 8 months of age. He attended the centre twice a week from 9:00 am to 5:30 pm. Both parents had migrated to Australia 15 years earlier. His father is a university lecturer in Melbourne and his mother was a secondary school teacher before she had their youngest child. Wen also joined a

weekend Chinese preschool program on Saturday from 9:30am to 12:30pm. According to his mother, this was his formal Chinese setting. Wen's Chinese was still developing, and his English skills were much more proficient than his Chinese.

At home, Wen and his siblings spoke English most of time. Their parents tried to communicate with them in Chinese, but they felt that they had not been successful because their children could not understand what they were saying sometimes.

They read bedtime stories every night in either English or Chinese. As Wen's father said, "不读故事，不睡觉。" <Without storytelling, the children would not sleep>.

Compared to Lin and Yi, Wen's home played a limited role in helping him to learn to read and write Mandarin. The children might occasionally learn Chinese words from watching TV programs or from their parents' conversations. Most of time, their parents spoke to their children in English and the siblings conversed in English too. It is evident from the video data that when Wen played cards with his younger sister (Lili) after dinner that English was the predominant language spoken.

His parents rarely read to him (or his sibling) in Chinese because they asked the children to pick their favourite stories at bedtime. Normally, Wen and his siblings preferred to choose English books. This is another reason that his level of Chinese was not high. The limited exposure to both oral and written Chinese is evident in Wen's family. This is not entirely attributable to the parental language input, but may also have been exacerbated by the fact that the four siblings communicated among themselves in English. Thus, a high level of ability in Wen's heritage language was difficult to achieve when the exposure to oral and written Chinese was very limited in everyday life.

While gathering data in the field, Wen's parents expressed the view that they hoped their children would speak Chinese well. However, they spoke English more than Chinese to their children at home. This displays the gap between the high expectation for spoken Chinese and actual family practice. These results are quite similar to Lao's (2004) findings, that although the majority of parents in her survey reported that they had a

desire to promote children's Chinese-language use in the home, use of oral and written Chinese did not increase in home practice.

During my visits to Wen's home, we saw plenty of English literacy materials and limited Chinese materials available. According to his parents, Wen preferred to listen to English stories. When they were asked whether they used English storybooks to read to their children in Mandarin, his mother said, "有时候， 读中文故事，要用英文解释复杂的中文词。读英文故事，我们会用中文将一些简单的英文词。" <Sometimes, when reading Chinese stories, we have to use English to explain some complex Chinese words; when reading English stories, we try to tell them some simple English words in Chinese.> This further illustrates that Wen and his siblings' English skills were a lot better than their Chinese.

An analysis of the data set is summarized in Table 5.1 below, giving details of the families' children's bilingual development.

Table 5.1

The Three Families' Backgrounds Regarding Children's Bilingual Development

	Parents	Years living in Australia	Number of children	Home language	Family literacy	Language Spoken	Children's language level
Yi's family	Shanghai	Father: 10 years Mother: 6 years	One girl	Chinese	Chinese books	Chinese	Chinese is better than English
Lin's family	Taiwan	6 years	Two girls	Mainly Chinese, Occasion-ally English	Using Chinese to read English books	Bilingual; Chinese and English	English is better than Chinese
Wen's family	Yangzhou	More than 10 years	Three boys, one girl	Mainly English Occasional-ly Chinese	Reading English books more than Chinese	Bilingual; Chinese and English	English is a lot better than Chinese

5.3 Parents' Beliefs in Raising their Children Bilingually – Chinese Identity

This section mainly focuses on parents' beliefs and values in raising their children bilingually. In the first interview with all three families, the discussion mainly revolved around three questions; Why did they encourage their children learn Chinese? Did they worry about their children's English? What family practices did they believe were important for learning a language and how did they implement these in daily life? The interactive dialogue was developed through the photos the parents and children took over two weeks prior to the first interview. The photos they took centred on interactive activities they thought were important for their child's language development.

5.3.1 Yi's Family – Chinese as a single language at home.

5.3.1.1 Yi's parents' beliefs regarding her language development.

Generally, Yi had a very strong Chinese communicative environment. As a result, her Chinese developed very well. According to her mother, Yi understood that her parents were not able to communicate in English with her, although she liked to talk to them in English. This was evident from Yi's comments on why she needed to speak Chinese at home. During the final visit, her mother retold what she had said to her aunty at the family group centre. "其实我也想讲英文。因为我的爸爸妈妈不讲英文。我爸爸妈妈英文讲的不好。" <I want to speak English, but my parents don't speak English at home. Their English is not good.>

It is clear that Yi has already understood why they need to speak Chinese at home.

During the first interview with Yi and her parents, the conversation first focused on why they chose Mandarin as their home language. Her parents always believed that Yi would not have a chance to speak Mandarin if they did not talk to her. The following Table 5.2 is our dialogue from the first interview.

Table 5.2

Yi's First Interview Protocol

First interview protocol 31/08/2009 at 7pm Yi's family	Researcher's common sense interpretation
Researcher: 你们为什么让她学习中文？为什么送她去中文学校学习中文？ Why do you ask her to learn Chinese? Why do you send her to study Chinese at Chinese school? **Mother：** 她是中国人，如果她不会说汉语，她和其他中国人聊天就会有很大问题。我们的英文也不好。 <She is a Chinese. If she cannot speak Mandarin, she will experience difficulties when talking to other Chinese people. Our English is not good. > **Researcher:** 当她刚开始去上幼儿园时，你们有没有担心她的英文，因为在家从来不说英文？<Did you worry about her English when she started to attend the childcare center?> **Mother:** 我是有点担心的。她开始去幼儿园时，英文不太会。我们会在一开始时给她说过一些很简单的词，比如说颜色或者一些像你好啊这些简单的日常用语。一开始时我估计是因为她听不懂，不想去幼儿园。三个月以后就好多了。现在就很想去了。 <I worried about it a little bit. Yi wouldn't understand English when she went to the childcare in the beginning. We taught her some	Her mother was concerned about her Chinese identity. This is the main reason for Yi to speak Chinese. Also, they worried about their English level. Yi needs to develop Chinese in order to communicate with other Chinese people, particularly her parents. Yi's mother understood her well and expressed that she worried about her English when she started childcare. She took it upon herself to help her, though she only taught her some simple English words due to her English level. She tried to help Yi settle into the childcare centre. As what she did worked,

125

simple English words such as colors or greeting. In the beginning she didn't want to go to childcare. I think she could not understand English. After three months, she was getting better. And now she likes childcare.>

Researcher: 她回来时，会不会与你们讲些英文？ <When she comes back from the child care centre, does she speak English to you?>

Mother: 经常会的。<Yes. She usually does.>

Father: 现在经常会的。<Now it is quite often.>

Mother: 偶尔的单词，比方说今天是我的 sharing day. <Some simple English words. For instance, today was my sharing day.>

Researcher: 平时你们有没有刻意地在她语言这个方面，强化一下？ <Do you strengthen her language development in her daily life? >

Mother: 不会。 <No.>

Father: 因为从我朋友小孩子中看到，我朋友的小孩都比她大，有三年级，四年级，也有初中的孩子，没有英文有问题的，只有国语有问题的。

<My friends' children are older than Yi. They are in Year 3 or 4. And some of the children are already in high school. Their English is not a problem, but their Chinese is a big issue.>

Researcher: 你事先已经做了一些调查。 <You have already done some research.>

Father: 我问了很多了。有的是从来没有去过

she was pleased to say that Yi likes childcare now. She would not worry about her English now.

Her parents' response confirmed that they do not worry about her English.

Her father was aware of Yi's language development. He had a talk to a few of his friends. He believed that speaking Chinese to Yi at home was the best choice for her. Also, it seems that her parents' English level would not interfere with Yi's bilingual development.

childcare，是直接去上一年级，刚开始的时候很难。老师也说你们小孩儿的英文不行，你要回家给他们补，否则他们不行的。但是现在到三年级，四年级，一点问题也没有了。因为她现在天天都去幼儿园，比起那些从来不去或者只去一两天，要好得多。所以我现在对她的英文担心不是很大。我们好多朋友的小孩子现在初中了，已经中文看不懂，更不会写了。 <I asked a lot of friends about this issue. Some of their children never went to childcare before primary school. In the beginning, they had difficulties because of their English. Their teachers also told the parents that their children's English was not good and that they needed to help them at home. But now they are in year 3 or 4 and English is not a problem at all. I think Yi should be okay compared to other children who have never been to childcare or only attend one or two days per week before primary school. Yi goes to childcare five long days a week. So, we don't worry about her English. My friends' children are in high school. They cannot read and write Chinese at all.>	Her father explained the reason why they insisted on sending Yi to the childcare centre five days a week was to improve her English development and help her transition to primary school, although was still able to stay at home with her mother. This is reiterated in the final interview. In the final interview, Yi started prep at a primary school. She didn't face communicative difficulties in the mainstream class.

First of all, it is not difficult to see that her parents expected Yi to be able to reach a high level of Chinese ability in reading and writing. They hoped that she would communicate and speak Mandarin very well. It seems that they believed that they played an important role in their child's heritage language development because their child only had the chance to speak Mandarin at home. Their motives for Yi to see herself as Chinese drove them to speak Mandarin and teach Yi Chinese at home.

When asked whether they worried about Yi's English development, Yi's father explained that according to the language practice of his friends' children, when the children reached Year Two in primary school they could no longer speak Chinese. His friends had also met many obstacles when trying to improve their children's Chinese. Therefore, it was decided that they would speak to Yi in Chinese at home. They did not think that speaking only Chinese at home would be an issue for her English development based on their friends' experience. It was also expected that Yi would teach them English in the future. As her mother mentioned, "爸妈英文不好，你可以教爸妈英文。爸爸妈妈中文好，可以教你中文"。<Mum and Dad's English is not good, but you can teach us; Mum and Dad's Chinese is very good, so we can teach you Chinese.>

It can be assumed that Yi's parents believed that by continuing to speak Chinese at home, Yi's Chinese would continue to develop. Furthermore, Yi's mother also cited the need to pass down Chinese heritage and culture, which is congruent with Vygotsky's beliefs. They mentioned that they did not worry about her English development because they felt Yi would learn English through her full time attendance at the English-based early learning center where she had been enrolled since she was three years old.

5.3.1.2 Yi's family's everyday practices.

When the conversation turned to how to help Yi develop her language skills, Yi's mother, who is an experienced primary/elementary teacher, emphasised that children learn through *social interaction* with parents, especially in terms of language development, and that they made an effort to talk to Yi in a mature manner. She also stated that she believed her daughter's language skills were better than other children her age, and that this was a result of their communication with her every day.

The next few chapters detail Yi's language practices and experiences in the home milieu, showing how the context, artefacts and social participants mediated and motivated Yi's experiences and development, and why these valued family practices can best be understood within the framework of parent's beliefs with regard to children's bilingual heritage language development.

As discussed in the interview, Yi's parents created a solely Mandarin language environment in order to develop her vocabulary and Chinese language through meaningful activities, such as meeting with their Chinese friends at weekends and festivals, borrowing Chinese storybooks from the public library, and sending her to Chinese school on Saturday. This can be related to Vygotsky's (1987d, 1994) work, which stresses the social situation of development, whereby children interpret and experience the external environment and social situations, which then shape their cognitive development, including their language development. The next few chapters discuss vignettes of family activities in order to show how the interactions within the activities, which initiated qualitative changes in Yi's language development, are a reflection of the beliefs of Yi's parents.

Here is a summary of Yi's family practices I videoed. I will not detail every single activity, but the table 5.3 will still show how Yi's family was involved in her learning and language development.

Table 5.3

Yi's Shared Family Activities at the Field

Schedule	Shared family activities
First interview 31/08/2009 by researcher	Car world play with Harry and her father Sand art with her father Storytelling with her parents
First video observation 20/09/2009 by researcher	Playing Wii with Harry and her parents Puzzle playing Book exercises Lunch
Second video observation 18/10/2009 by researcher	Afternoon tea Shared book reading Cleaning up the kitchen Mopping the floor Hanging clothes with her mother
Third video observation 29/11/2009 by researcher	Doing Chinese homework Bedtime story Drawing a picture

Schedule	Shared family activities
Final interview 05/04/2010 by researcher	Storytelling with her drawing Chinese writing
Video clips/photos from parents	Dinner time Playing at the park Playing sand art with Harry Learning a Chinese song from a DVD Shared book reading Moon Festival

5.3.2 Lin's family – mainly Chinese/occasionally English.

5.3.2.1 Lin's parents' beliefs in her language development.

Basically, Lin had a supportive Chinese communicative environment at home. Lin has developed her Mandarin since birth under her parents' strong support. Sometimes, there were two languages working in her home environment. Indeed, Lin's bilingual experience at home reflected her parent's attitudes and values that were framed by their social, cultural and historical experiences. Moreover, Lin's father considered being bilingual in Chinese and English to be a privilege with connections to economic and social benefits. Therefore, both of Lin's languages were validated at home.

Compared to Yi, Lin's English was better than her Chinese, according to her parents. What her parents were worried about was that her Chinese intonation and grammar was similar to English, and that her Chinese relied on her English from time to time. Some utterances possessed some unique features of the English language. For example, in an interview, Lin wanted to read a book to her sister. She said in Chinese, "看书给妹妹" <Read book to sister>. Her mother re-expressed it in the right way; "跟妹妹念书" <with sister to read book>. Here, what she expressed in Chinese was reliant on English grammar. This kind of expression also occurred in the video data, which will be discussed in detail in the following chapters.

Lin's parents paid a lot of attention to her Chinese language development. As they mentioned, they consciously corrected her Chinese pronunciation and grammar mistakes. They believe that they played a very crucial role in her Chinese development. At three

years old, they sent her to a child care center which was run by a Chinese Singaporean. They saw a lot of Chinese children enrolled at the center and expected that she would learn Chinese there. Unfortunately, Lin communicated with her peers in English most of time at the centre. Thus, they had to make an effort to help her learn Chinese at home. Table 5.4 shows part of our dialogue during the first interview, which illustrates her parents' beliefs on why Lin needed to learn Chinese and how she learnt at home.

Table 5.4

Lin's First Interview Protocol

First interview protocol 27/09/09 at 2pm Lin's house	Researcher's common sense interpretation
… **Researcher:** Lin 从什么时候开始讲中文？从出生时是讲中文还是英文呢？ <When did Lin start to speak Chinese? Which language did she start with from birth; English or Chinese? > **Father：** 从出生后最先说的是中文。因为她外婆来照顾她，所以在她 10 个月时就开始喊外婆了。 <She started speaking Chinese from birth. At that time her grandma looked after her, so she started to say "Grandma" in Chinese at ten months. > Researcher: 你们为什么让林在家里讲中文呢？ <Why do you ask her to speak Chinese at home?> **Father：** 因为她是中国人，就一定要让他讲中国话了。 <She is Chinese, so she must speak Chinese.> **Mother：** 看她长一个华人的脸，如果不会讲中文，太可耻了。<It would be a shame if she could	The parents believed that Lin should speak Chinese like a Chinese girl.

not speak Chinese when she has a Chinese face.>

Researcher: 那外婆和他说的是讲国语吗？还是地方话？<Did her grandma talk to her in Mandarin or a dialect?>

Father/mother: 讲国语比较多。<Most of time in Mandarin.>

Researcher:那你们之前会讲闽南话吗？<Do you both speak the Minnan dialect at home?>

Father/mother: 有 啊 。 但 不 会 让 她 听 到 。 <Sometimes. But we don't let her hear it.>

Researcher: 为什么呢？<Why?>

Father： 在这边她一定会学到英文的。但中文也是一定要会的。她的普通话很重要的。但是如果说太多的语言的话，怕增加她的负担，会混淆她的。<She must learn English in Melbourne and she also needs to learn Chinese. Her Mandarin is very important. If we speak to her in too many languages, it would increase her burden and confuse her.>

Researcher: 那你们大多的时间在家是和孩子们说国语？<Do you speak to her in Mandarin most of the time at home?>

Father/Mother: 是 的 ， 讲 国 语 。 <Yes, in Chinese.>

Researcher: 你们感觉 Lin 在中文和英文上哪一个发展得比较的快？<Which language do you feel she has developed faster, English or Chinese?>

Mother: 英文喽。<Definitely English>

Father： 我觉得她英文学得比较好一点。因为这是和她学习的时间有关系。因为她每周有四天都

Lin's father believed that Lin would be able to learn English because she lives in Australia, and would only get a chance to speak Mandarin at home. Both parents spoke Chinese to their children most of the time at home, so the home language was mainly Mandarin. Her father consciously paid close attention to her language development.

Both parents believed that Lin's English was better than her Chinese. She had been to child care four days a week since she

在幼儿园了。<I think her English is better than Chinese. It is related to her language learning time. She goes to childcare four days a week.>

Researcher: 那在家里，你们觉得什么样的活动和交流帮助她中文语言上的发展呢？<Okay. What kind of activities and interactions do you think would help her Chinese development?>

Father: 除了讲故事之外，我觉得更有用的是像我太太会和她一起做东西啊。一起做蛋糕啊。烤蝴蝶酥。因为林很喜欢捏着那些面团啊，然后林就会问啊，她们就交流讲话啊。林就会很高兴地问，"这是什么？"我觉得动手作会学得比较快。<Besides storytelling, I think the most useful activity is when she cooks with my wife. Baking a cake or bread. Lin is very interested in rolling the flour. She would ask a lot of questions. She'ld ask "what is this?" And she would communicate with her mum in Chinese. So, I believe that she would learn faster if she did some activities.>

Researcher: Lin, 那我们现在来看看这些照片好不好？你看看你在照片里在做什么呢？<Let us look at those pictures. Lin, can you tell me what you were doing in the photos?>

Lin: 看书给妹妹。<Read books to sister>

Mother: 跟妹妹念书。<With sister reading the book>

Lin: 跟妹妹念书。<With sister reading the book>

Father: 她的中文有一点不是那么地道。说"看书给妹妹"。她的中文有时候会受到英文的影响。比如她会把后面的音调高起来。<Her Chinese is

was 2 and half years old.

Lin's father believed that story telling was an important activity at home for Lin to learn Chinese. Another important activity for Chinese communication took place when Lin cooked at home with her mother. As her father mentioned, she was curious and asked her mother a lot of questions. She was able to learn a lot of Chinese vocabulary through their communication. The cooking activity was video observed at the next visit.

"看书给妹妹。<Read books to sister>" is a word order mistake in Chinese. To some degree, her Chinese relied on English grammar.

not very good. She said, "Read books to sister." Sometimes her Chinese is influenced by her English. For example, she would increase her last tones in Chinese.>

Mother: 但是现在那些已经改掉了。<But now, those have already changed. >

Mother: 她爸爸很担心她不会认字。<Her father worries about her reading Chinese.>

Father： 阅读写作能力都会问题。<Reading and writing will be a problem in the future>

Researcher: 哦。学习中文呢，还是要先培养兴趣的。<Okay. Cultivating her interest in Chinese would be the first thing. >

Father: 对对的。 我们现在也是送她去中文学校上那个学前班。主要就是培养她的兴趣，让她有那个感觉。她很喜欢去中文学校。比上幼儿园更喜欢。

<Yes. Currently, we send her to Chinese school to join a preschool program on Saturday in order to cultivate her Chinese interests. She likes going to Chinese school, even more than to the childcare centre.>

Researcher: 你喜去中文学校吗？<Lin, do you like to go to Chinese school?>

Lin: 我喜欢去中文学校跟 snow.她手里拿着照片。<I like to go to Chinese school and the snow.> She was holding a picture of a snow activity.

Father: 哦，你很喜欢去中文学校跟玩雪。<Well, you like to go to Chinese school and playing in the snow.>…

Her parents were aware of her Chinese developmental level and some problems occurred when she spoke Chinese. Here is more evidence to show her English was better than her Chinese, and that she was still learning.

The reason they sent their daughter to Chinese school was to cultivate her interest in Chinese at an early age.

It seems that Lin understood her parents' expectations and interpreted her language environment. When her parents corrected her sentence, she had already gotten used to imitating what they told her.

Chinese is mainly a home language

Here the big difference between Lin and Yi's family is that Lin's parents are very good at English. They were able to communicate with Lin in English. However, they still chose Chinese as the main home language in order to support Lin's Chinese development. They believed that since Lin was a Chinese girl she must know about Chinese and related culture. This is similar to Yi's parents. They tried to maintain their heritage culture and help their children develop their Chinese identity. They believed that Chinese language was the main thing to develop as a Chinese person.

However, it can still be observed that her father talked to Lin in English. They went to church almost each Sunday and mainly joined the English service. Her mother sent her to a play school program that was English based. As her parents mentioned, they also went to English-speaking friends' homes to play. This shows that Lin's family situation was very different from Yi's. Lin also had a chance to experience English in daily life. Lin understood that her parents were able to speak English to her but liked her to speak Chinese at home. When her father transitioned from speaking English to Chinese, she responded to him in Chinese as well. Her interpretation of the family language environment was that she had to speak Chinese at home.

Relationship with sibling

Lin's mother had very strong parenting beliefs in encouraging Lin to speak Mandarin at home. In the final interview, her father mentioned that Lin's mother reminded him to speak to her in Chinese when he spoke to her in English. In her mind, speaking Chinese at home was a necessity, although they could communicate in English. Additionally, they hoped Lin's sister Meimei would follow her in developing Chinese, as they found that Meimei always copied Lin's actions and imitated her voice. It was evident that Meimei's Chinese improved in my final visit, as she was able to speak a lot of Chinese words. During my first visit, she was one and a half years old and she spoke simple English words. According to her mother, Meimei had gone to childcare since she was one year old, and started to talk within the English environment.

These two following photos were taken by Lin's parents. Lin was reading a story about a duck to her sister. At this moment, Lin was pretending to be a teacher or her father when reading the story, although she could not read Chinese. This reminds us of the roles of peers described by Vygotsky (1987c), which characterize the ZPD, and provide an opportunity for more capable peers or adults (older sibling or parents) to guide younger siblings/children's development. According to Tucker and Updegraff (2009), the features of the interaction are that Lin acted out the role of teacher/father and Meimei complied with Lin's directions and considered Lin an expert.
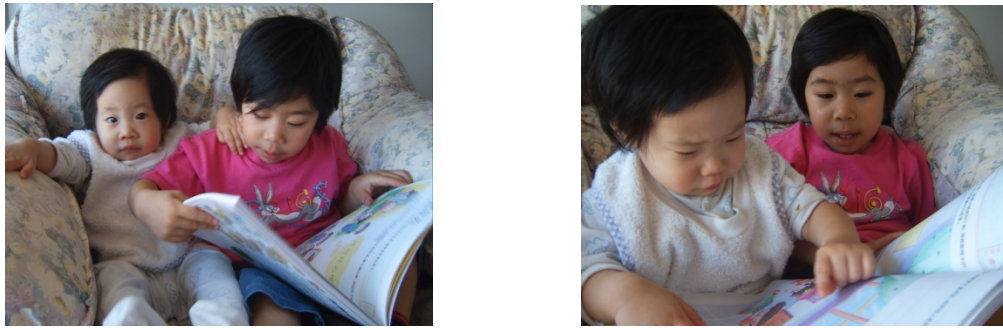
Image 5.1. Lin's reading with her sister, Meimei.

5.3.2.2 Lin's family's daily practices.

Interaction within the activities

When our conversation turned to how to support children's Chinese development at home, Lin's father pointed out that it would be helpful if activities were done together. Her father gave an example of how when baking cakes with her mother, Lin liked asking questions. This helped her enlarge her vocabulary and practise her grammar in use, and made it easier for her mother to correct mistakes. The cake baking activity is discussed in detail in Chapter 7. Lin's parents believed that interacting and communicating in activities in this way would best support their children's language development. This corresponds to the idea that children's interactions with parents and siblings are intertwined in their everyday lives, and provide unique contributions to their development (Bank, Burraston, & Snyder, 2004; Tucker & Updegraff, 2009). Lin's behaviour and learning is guided by the knowledge and instruction from her parents in the task setting, such as baking, which can be seen as the social plane of psychological

functioning. After mastering certain strategies under the guidance of parents, children gradually develop their own guidance and control, which can be seen as the individual plane of psychological functioning. This is the transition from interpsychological to intrapsychological functioning, which is understood only by tracing it back to its roots in social interaction (Vygotsky, 1997b).

Family literacy

As discussed in the interview, with regard to family literacy, her father mentioned that sometimes they had to read English stories to their children in Chinese as the Chinese literacy resources in Melbourne were scarce. In addition, Lin's father borrowed an idea from his friend. He sticky-taped pieces of paper with the names of objects written in both Chinese and English to their corresponding objects. He wanted to try help his children learn the English and Chinese names of each object at home by using name cards. Lin was very interested in looking at the words on the paper and pronouncing the names of the objects. Through this small effort, Lin was motivated to find other things at home and ask her parents to write down the names on the object. It seems that this kind of family literacy practice enhanced her interest in language. The photos were taken during my third video observation.

推拉窗
Sliding window

水壶
Bottle

工 作 台
Bench
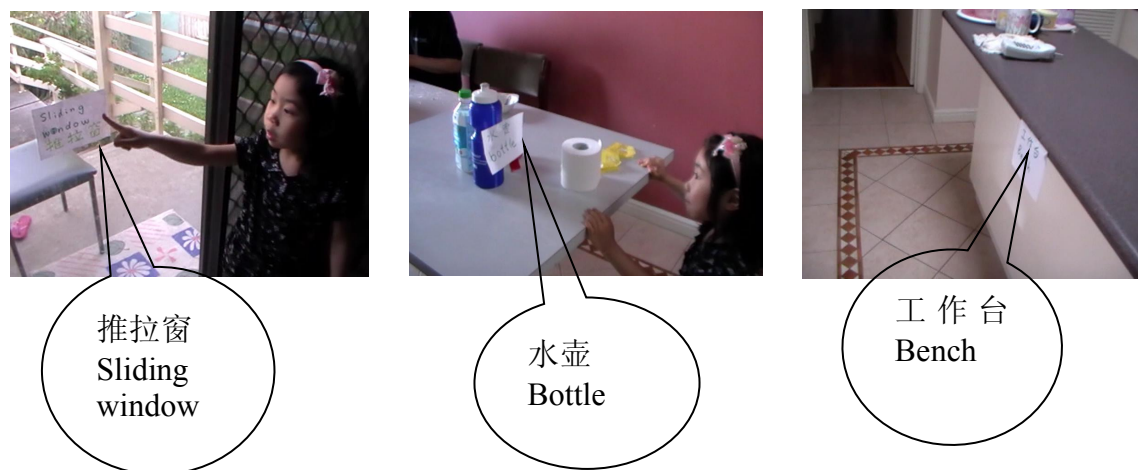
Image 5.2. Name card.

As her father stressed, family interactions intertwined with shared daily activities provided Lin with a variety of opportunities to develop Chinese and language literacy. The following Table 5.5 summarises Lin's family's everyday practices at home that were video-observed. The next chapters discuss some of the typical activities.

Table 5.5

Lin's Shared Family Activities in the Field

Schedule	Shared family activities
First interview 27/09/2009 by researcher	Language games Storytelling Snowing Visit the aquarium
First video observation 01/10/2009 by researcher	Role play with her father – supermarket Watching a DVD Shared book reading Morning tea Lunch
Second video observation 21/11/2009 by researcher	Cake baking Afternoon tea Recognising the time Counting cookies Fridge literacy
Third video observation 22/12/2009 by researcher	Reading a book Family literacy – name cards Dinner Walking to the park Role playing at the park – restaurant Sliding
Final interview 06/03/2010 by researcher	Chinese homework
Photos/Video clips from parents	Bedtime storytelling Singing with Lin's sister Moon festival

5.3.3 Wen's family – mainly English/occasionally Chinese.

5.3.3.1 Wen's parents' beliefs on raising their children bilingually.

Compared to Yi and Lin, Wen did not have a very strong Chinese communicative environment. He did not receive a lot of support from his parents and siblings, although he started to speak Chinese when he was little. When he was little, his aunty from China looked after him, and they spoke Chinese together. However, when his aunty left he did not continue learning Chinese at home.

As his parents pointed out, he had been going to childcare twice a week from when he was 8 months old until five years of age. He had spent more time with his family at home than Yi and Lin. However, his English was a lot of better than his Chinese. The following dialogue reflects Wen's parents' beliefs on speaking English and Chinese at home.

> **Mother**: 我们是一直担心他的中文不好。因为他们接触的比较少。而且在家里也不讲.
> *<We worried a lot about his Chinese. There were not many chances for him to experience Chinese at home as we didn't speak Chinese at home.>*
> Wen's parents spoke to each other in English as well. His mother honestly said,
> **Mother**: 他爸爸平常有意识地会讲中文, 无意识的会讲英文。在他下班以后，自然地就会说英文。
> *<Normally his father consciously speaks Chinese and naturally speaks English at home. After work, he naturally speaks English since he communicates in English at work.>*
> And his father further pointed out,
> **Father**: 我现在也意识到了，我们也自己无意识的就去讲英文，看来我们以后也要不断的改变自己了。
> *<I realise it now. We also naturally speak English, so we need to change ourselves as well.>*

It can be seen that both parents were concerned about their children's Chinese development. They began to try and support their Chinese bilingual development. His mother worried a lot about their Chinese development, as she mentioned twice during the conversation that their children's Chinese was not as good as their English, and that this was different from a lot of Chinese immigrant families at Melbourne. The following

Table 5.6 shows that they believed in raising their children bilingually, and reveals why they wanted their children to be bilingual in English and Chinese.

Table 5.6

Wen's First Interview Protocol 1

First Interview protocol 28/11/09 at 2.30 pm Wen's house	Researcher's common sense interpretation
… **Researcher:** 你们为什么要他学习中文呢？ \<Why do you want your children to study Chinese?\> **Father:** 第一个就根吗! 这是最重要的。第二个就是中国现在很强大，会中文也是值得骄傲的事情。国家强大也有想他学的力量。最重要的还是这个根，是中国人。如果从另外一个角度讲，我们以后会经常回国， 回国探亲时如果没有这个语言，就没法交流，会有很大困难。 \<The first reason is our origins as Chinese. The second reason is that China is becoming very strong in the world, which makes us feel proud to be a Chinese. But I think the most important is our origins as Chinese. Besides, it would be very difficult if we don't know Chinese when we visit our family or relatives in China.\> **Researcher:** 是啊，中文对他们来说很重要。你对他们有什么要求么,期望是什么？ \<Yes. Chinese is very important to them. What kind of hope do you have for their Chinese development?\>	Wen's father believed that they are Chinese, which is their origin and shows where they were from. This was the most important reason for them to know Chinese. Another reason was that as Chinese people they feel proud.

Mother: 我的期望就是....他们的中文程度跟国内的孩子肯定是不好比.读写肯定是弱的.我就希望他们回中国跟人交流没有问题, 跟人交流没有问题, 跟亲戚朋友说话他都会说, 然后走在街头标志都会认识, 然后当然他学的更好就最好了。他的读写,能有一定的读写能力,能够看懂中文的报纸啊。 <I do hope they will not have any trouble in communicating with others when we go back to China. That they could recognize the road signs. If they could do that, it would be better. Also, that they could read Chinese newspapers.> **Researcher:** 比如说他高考的时候你会让他选择什么 <Do you think about their VCE exams?> **Mother:** 恩 那时候肯定会...他一直在学中文嘛.肯定会坚持到 VCE 的程度。到时候肯定会参加 VCE 的中文考试.啊...当然考试是一方面。并不希望他高考能拿多少分。这是一方面.当然越高越好。对你也有好处是吧。更重要的是 life-long learning 终生一生都学中文.把这个作为一种工具.就像我们把英文一样, 把英文作为一种工具。 我觉得对他们也有好处。 <Yes. He will study Chinese until the VCE level. I think they will do the VCE Chinese exam. We would not expect them to get a very high score, but we think it is their "life-long learning". We do hope they can use Chinese as a tool in the same way we are using English now. >	They had hope for their children's Chinese development. It also shows their belief that they are Chinese and thus they need to communicate with Chinese people. They wanted their children to have life-long Chinese abilities. This means that they thought Chinese is as important as their English and it should be considered as a tool.

English is mainly a home language, but Chinese is an occasional language

Compared to Yi and Lin's parents, Wen's parents also held similar ideas about raising their children bilingually. They still believed that they should know Chinese because they are Chinese, although they did not keep speaking Chinese to their children from when they were born. This demonstrates the relationship between identity and language, which cannot be ignored. They had been in Australia for more than 10 years and had already become used to living in the Australian cultural community. Firstly, they spoke English naturally, but Chinese only consciously. Secondly, they had a lot of local friends who mainly spoke to them in English, which is a big difference from Yi's family. Furthermore, it needs to be mentioned that they have an old local friend who was their teacher when they started their life in Melbourne. Normally, he comes to have dinner with them every night, and sometimes he also helps them to look after their children and prepare them for bed. The children also loved playing with him. Wen's mother was concerned that, at dinner, they should speak English to their friend in order to be polite. In addition, during our conversation I realised that their children communicated with each other in English all the time, which is in accordance with Wen's parents' comment that, "our children speak English to each other at home". Therefore, English is their main home language, but Chinese only an occasional language.

5.3.3.2 Wen's family's daily practices.

Parents' support for their children's Chinese language development

As shown in the data, Wen's parents realised that their children's Chinese language development was a big issue. So, they intended to provide a variety of opportunities to support their children's Chinese language learning at home. Table 5.7 displays how they decided to support and change their everyday activities after they realized their children's Chinese was not highly developed.

Table 5.7

Wen's First Interview Protocol 2

Interview protocol	Researcher's common sense interpretation
… **Researcher:** 你们是怎样帮他们学习中文？哪些活动对学习中文很重要？ <How could you help them develop their Chinese? What kinds of family activities are very important to their Chinese learning?> **Father:** 我们也希望等老大中文好一点时，在家里带他们说中文。等到他四年级时，应该说中文. 老大是领头羊，带头人。我们很想试着带他回国看一看，他的中文 <We hope that the oldest boy's Chinese can make great progress, and then he may lead the other siblings to speak Chinese at home. We will try to take Wen back to China and see to his Chinese development.> **Mother:** 我觉得有这个环境，我带老大在他两岁半去中国前，他的中文就是零，我也从来不和他讲中文，他什么都不会。刚去的头一个月，他非常 frustrated，因为我妈妈给他讲什么，他不懂，他跟我妈妈拉手上街玩，我妈妈和他说什么，他听 不懂，他说什么，我妈听不懂，一老一小就没办法交流。到了第二个月，稍微有一点点他能听懂简单的，我觉得很快，我们在国内呆了将近四个月，他的中文讲得多于英文。他已经会说很多的简单的中文 ……	Wen's father believed that the sibling relationships intertwined in everyday life and affected their children's Chinese development. Furthermore, the first child would need to be the leader amongst the siblings.

<I feel a Chinese environment is very important. So I took my oldest boy to China. His Chinese was ZERO at that time. I had never to talk to him in Chinese. So, he did not know any Chinese. During the first month he was very frustrated. He could not understand what my mom was saying to him. When they went shopping, they could not understand each other. Up to the second month, he could not understand simple words or sentences. I felt his Chinese improved very fast. During those four months in China, he spoke Chinese more than English.>	His mother believes that the language environment is the main issue for their children's language development. That is the reason they sent their first child back to China for four months.
Researcher: 这可能是个好主意。不是吗？ 语言环境很重要。我在想你为什么想到要送他回国学习中文呢？	
<Maybe that's a good idea, isn't it? The language environment is very important. I am wondering, why did you send him back to China?>	
Father: 是的。 当时他已经二岁多了，我就想他开始学习语言了。我们在送他回国之前，我们在家也试了，他没办法听得懂，后来就想最好办法 就是送他回中国。	
<Yes. At that time, he was two years old. I thought that he should begin to learn Chinese. We had a try to teach him Chinese before we sent him back to China. It failed. He could not understand what we said to him. Then, we thought it would be best to send him back to China to learn Chinese.>	The trip to China made both parents understand that it is very important to speak Chinese at home.
Mother： 回来以后，再过一个多月，又是回头了，又是英文多于中文。后来我们意识到，我们就尽量的在家都试着跟他们用中文讲了，他们基本上	

能听得懂，但是平常他们之间自己玩的时候都是讲英文多。

<Within a month after he came back from China, he started to speak English again. He spoke English more than Chinese. Then we realised that we needed to try to speak Chinese to them. They can understand what we say. But, they still communicate with each other in English when they play together.>

Researcher: 看来你们在让孩子学中文这方面，确实想了很多办法。通常你们在家里都做了哪些努力让他学中文呢？他们会不会看电视呢?>

<Well. It seems that you tried to think of a lot of ideas to support your children to learn Chinese. Right now, how do you try to help them learn Chinese at home? Do they watch TV at home? >

Mother: 是啊。我们也在努力。我们也是听朋友讲的我们安了中文电视。有些华人朋友他们在家讲中文，还有就是看中文电视。所以我们最近就按了中文电视，试试看吧。说孩子经常看电视，孩子也就和电视上学了。然后我们就试试看吧，试了以后，对孩子们是有些效果。他们现在对中国也是很感兴趣。之前对中国都没有多少概念。

<Yes. We've just been trying. We installed a satellite for Chinese TV. I heard from other Chinese friends that their children watched Chinese TV programs, except they speak Chinese at home. So, we also installed Chinese programs recently and have given it a try. Up to now, we feel that watching Chinese TV programs is working. The children can learn Chinese from TV. They are interested in China. They didn't have any

They also borrowed an idea from their friends, which was using TV to teach their children Chinese. It also provided them with a Chinese environment. They allowed their children to watch Chinese TV programs in order to learn Chinese. Also, it is a good way to help their children learn about China and become interested in Chinese. It was good to

ideas about China before that.>	hear that this method worked well.
Mother: 以前是英文电视，他们也很爱看，但是我限制他们看。现在看中文电视，是学中文为主娱乐为辅。每天可以看一个小时。让他们听学中文。 <My children love to watch TV. They watched English programs. I restricted their TV time. And now, I have encouraged them to watch Chinese TV programs, which is mainly for learning Chinese and entertainment is the second aim. Every day they watch TV for one hour and we let them listen and learn Chinese.>	
Father: 还有一种学中文，就是在玩中学。比如说我们做花园比较多。孩子们喜欢做花园，做花园时，基本上我们说中文多。更有机会。我喜欢做，孩子们就出来跟着做，在做花园时，孩子们可以学很词汇，这是书本上看不到的。 <There is another method for learning Chinese, which is learning through playing. For example, we have done a lot of gardening. Children love to do that. We speak Chinese more than English when we are gardening. They have more of a chance to learn. I like gardening and the children just follow me. When we are gardening, the children learn a lot of vocabulary. I think they would not learn that from textbooks.>	Here, Wen's father understood that learning is through playing. I think this may be related to his job as a lecturer at University.
Researcher: 是这样。他们可以在生活中学习。< Yes. That's right. They can learn from their everyday lives.>	He mentioned a strategy he had applied that children could learn Chinese when they are gardening together.

It was a very interesting conversation with Wen's family. Both parents believed that the language environment they provide to their children is very important for their Chinese language development at home. Additionally, Wen's father believed that sibling

relationships could help their children develop their Chinese language skills. This is very similar to Lin's situation with her younger sister.

Wen's family sent their first child to China to learn Chinese and installed a satellite to receive Chinese TV programs. Furthermore, Wen's father realized the important concept of learning through play, which is one of their family strategies to support their children's language learning at home. This echoes Vygotsky's (1966) first argument in his play theory that play is not the predominant feature of childhood, but is a kind of "purposeful activity" (p. 72) for a preschool child in their development. The shared play activity is further discussed in the next chapter.

Family literacy

The kind of language literacy to which the children are exposed at home is another key to the child's language development. When I first visited Wen's family, I found that their family literacy was different from that observed in Yi's and Lin's families. Firstly,

Wen and his siblings spoke English more than Chinese, and sometimes Wen's parents communicated with them in English. Secondly, the literacy samples on the fridge were in English too. Thirdly, as I mentioned earlier, bedtime stories were in English most of the time. In sum, most of the oral language and written literacy around Wen was English. That is the main reason why his English was a lot better than his Chinese. How he interpreted his surroundings was based in English, and the meanings of objects and activities were English-based. Vygotsky (1994) states that environment influences children's development in one way or another. How a child's development is influenced and directed is not directly because of the environment, but because of how much the child is aware of and interprets the situation in which he/she is located. In Wen's family, the main language environment was English. Wen used English as a mediating tool to understand the family context and the world. Then, because his parents realised that

learning Chinese was just as important as English, they tried to begin supporting their children's language development in daily life. As Vygotsky (1994) concludes,

> Environment cannot be regarded as a static entity and one which is peripheral in relation to development, but must be seen as changeable and dynamic… the child, his development, keeps changing, becomes different. It is not just the child who changes, for the relationship between him and his environment also changes, and the same environment now begins to have a different influence on the child (p. 344).

As Wen's parents mentioned, his Chinese improved a great deal as they tried to change their language environment. How his parents changed the environment and provided opportunities for Wen is discussed in the next few chapters. The following Table 5.8 summarises Wen's family's typical daily practices at home that were video-observed in the field. The next few chapters discuss some of the activities.

Table 5.8

Wen's Shared Family Activities in the Field

Schedule	Shared family activities
First interview 27/09/2009 by researcher	Handicraft Storytelling TV watching Reading a Chinese newspaper
First video observation 01/09/2010 by researcher	Guess who games Storytelling Chinese homework writing Afternoon tea TV watching
Second video observation 08/04/2010	Gardening Art work Drawing
Final interview 24/04/2010 by researcher	Computer games Drawing Storytelling with the cards

Schedule	Shared family activities
	Writing Chinese words Afternoon tea
Photographs and The video clips from parents	Bedtime storytelling Music and singing with siblings Outside play Doing Chinese homework Dinner Making a lantern School orientation

5.4 Chapter Conclusion

This chapter discusses three research families' backgrounds, beliefs and daily practices in raising their children bilingually. It focuses mainly on why and how parents supported their children's Chinese as their heritage language. Furthermore, it primarily identifies some important concepts such as Vygotsky's environment. It shows that parents' beliefs and the home environment influence children's development. Hedegaard's (2008b, 2009) model (See Chapter 4) of children's learning and development through participation in institutional practice shows "a situated dynamic where a child concurrently participates in several institutional settings and arenas in his or her everyday life" (2009, p.11). Studying children's language development should encompass daily life across different institutional settings from individual, institutional and societal perspectives. This current study focuses on children's heritage language development in the Australian context, and thus the heritage language is mainly used in the family context, weekend Chinese school and in the Chinese community (e.g. family friends or neighbourhood). With these contextual features in mind, the children's language learning and development is represented by the following model (See Figure 5.1).
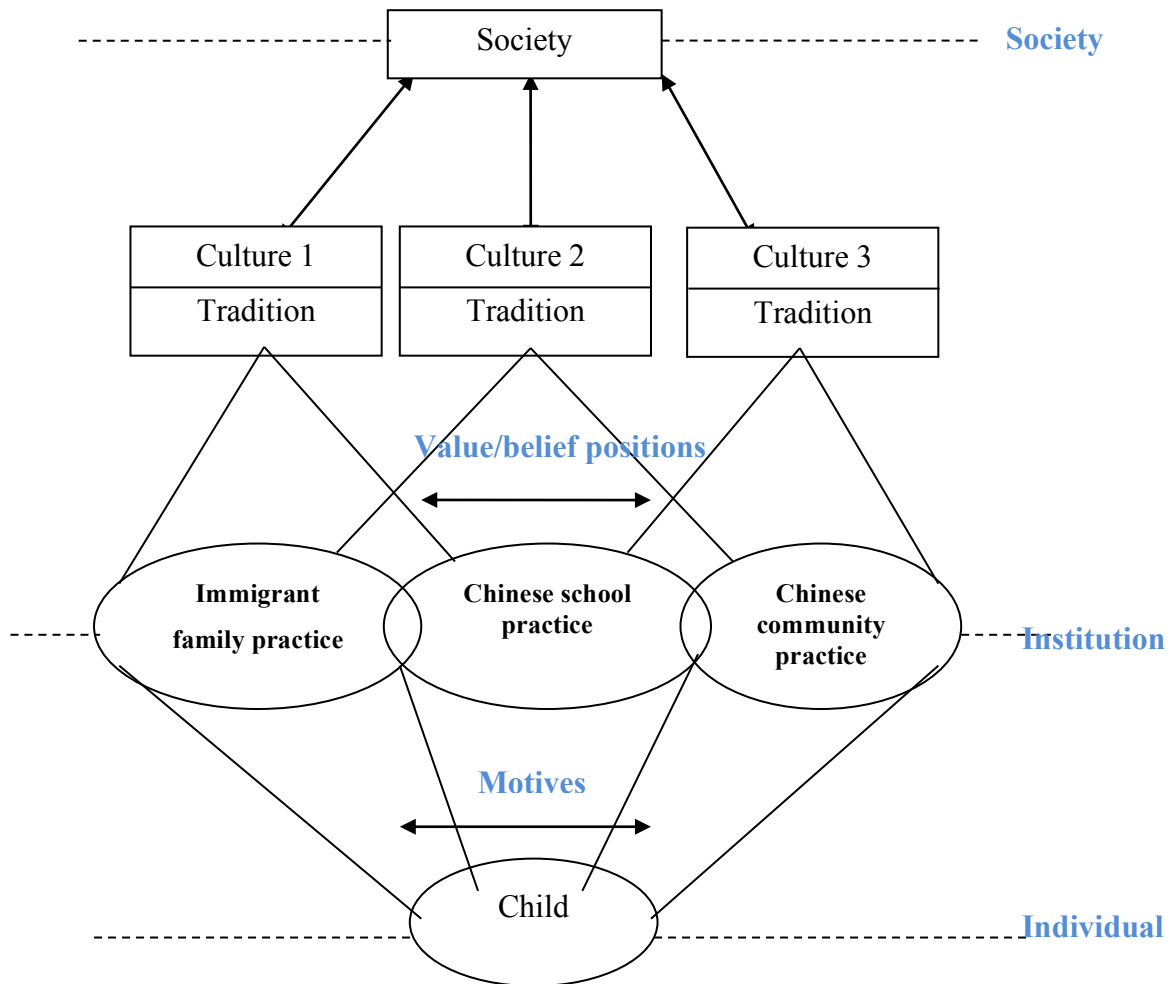
Figure 5.1. **Chinese children's heritage language learning and development in an Australian context (Adapted from Hedegaard, 2008b).**

The findings recount that parents' values and beliefs in raising their children bilingually impact their family practices and even their children's language development. Moreover, parents' beliefs are manifested in the everyday practices and activities they engage in at home, at school and in the community, and through the nature of the interactions they have with their children. With regard to the home language chosen, the three families illustrated different positions. Yi's parents were not able to communicate in English very well, so in order to keep communicating with their daughter they had to speak Chinese at home all the time. The family's situation and values enforced their use of Chinese at home, which led to Yi's Chinese being better than her English. In Lin's family, her

150

mother had strong beliefs regarding Lin's Chinese language development, and as a result, the parents chose to use Chinese as their home language. Lin's mother reminded her father to speak Chinese to Lin whenever he spoke English. Consequently, their beliefs and choices impacted Lin's language development. Her Chinese was much better than Wen's. In Wen's case, his parents did not value Chinese as strongly as Lin's mother. They chose to use English as their home language after Wen's birth, which resulted in Wen's English being a lot better than his Chinese. However, they realised that Chinese was very important to their children as they have a Chinese heritage and China is becoming very strong. They had started to speak Chinese to their children recently, which increased Wen's interest in Chinese.

Family position and activities in the Chinese community also reflected parents' beliefs and strategies in childrearing practices. Parents and children may engage in different types of language-related experiences together through everyday activities like cooking, cleaning, and shopping. Parent's beliefs and values, and the way they engage in children's activities, shape what is possible within the home context. Their beliefs also normalise a particular type of family interaction pattern that supports children's heritage language development. In the next chapters, some typical shared family activities are discussed in detail.

Chapter 6

Family Practices- Language Development in Play

> In play it is as though he were a head taller than himself… in play it is as though the child were trying to jump above the level of his normal behavior… Play is the source of development and creates the zone of proximal development. (Vygotsky, 1966, p.16)

6.1 Introduction

In the previous chapter, each family's background and beliefs in educating children bilingually was explained and their concerns for their children's Mandarin development within Australia were discussed. In order to answer the research questions, the following chapters illustrate the connection between parents' beliefs and everyday practices and give new insights into immigrant family strategies for their children's heritage language development. During my visits to Yi's and Wen's homes, joint play with parents occurred. When Yi's and Wen's parents were asked what they thought of the importance of role-play in their children's language development, they had no previously formed opinions, although they did believe that play supports children's language development. In contrast, Lin's family did have views on how play supports children's heritage language development and perhaps because of this awareness of this value engaged often in play with their children. This chapter focuses mainly on the rich parental engagement evident in Lin's play activities.

6.2 Lin's Play Practice at Home

The following two vignettes show a father-daughter interaction in a play context which contributed to Lin's Mandarin development. As her father mentioned in the first interview, Lin was very interested in role-play. Her father believed that this kind of play would help Lin develop her Mandarin. In the whole study, five examples of Lin and her parents in interactive sequences show them engaged in role play, including market, restaurant, and 'mother and babies' play. Only part of Lin's play with her father is

focused on in this chapter. Two case examples (play market at home and restaurant at the park) are highlighted. Because this is a study of children's language development, it is important to expand upon their language communication in the transcripts.

6.2.1 Play case example 1.

This example of play occurred on a Thursday morning. Lin's father spent the day with his two daughters. After reading a book with her father, Lin brought her new toy to the living room and started to play. While they mainly engaged in Chinese language communication, **bolded words** indicate words spoken in English and red words indicate new Chinese words/concepts for Lin. The sentences within the symbol < > display the English translation and the explanation within [ ] describes the situation and provides simple comments. Two questions need to be considered in the case example. One is the conflict Lin and her father experienced during play; the other is how their collective imagining was expanded and play dialogue was extended.

Image 6.1. Lin initiated the market play.

Lin: What do you want to buy?

She started selling things to her father.

Father: 你在卖什么东西？ <What are you selling?>

[Her younger sister was sitting on her father's leg and watching.]

Lin: 这个是你喜欢买的东西？ <Dad, are these what you would like to buy?>

[She took some toys, such as Mickey and Minnie plush toys, to her father.]

It can be seen that Lin initially sold her toys to her father in the imagined market play. However, her father did not like the toys and wanted to buy something to eat. This is the first conflict between her demands and her father's needs, which instigated their play and expanded their imaginary play situation.

Image 6.2. "I want to drink something. Do you have any drinks?**".

Father: 我不喜欢玩那个东西哦！我想喝东西。你有没有东西可能喝？还有我肚子饿啊！<I don't like playing with these kinds of things. I want to drink something. Do you have any drinks? Also, I am hungry.>

Lin: 好啊，可以。<Okay. Here.>

Father: 那你有卖什么东西？<What do you have to sell?>

Lin: 你过来。<You come with me.>

Father: 过来啊！<Coming!>

[She went to the corner and picked up one Coca Cola bottle.]

Image 6.3. "This is the drink"; "This is for you."

> *Lin: 这是喝的东西！ <This is the drink.>*
>
> *Lin: 爸爸，这是给你的。<Daddy, this is for you.>*
>
> *[She did not give it to her younger sister.]*
>
> *Father: 好，谢谢！<Thank you.>*
>
> *[He got the bottle from Lin.]*
>
> *Father: 那我肚子饿了，还有卖什么的？<Well, I am still hungry. What else do you sell?>*
>
> *[Lin's father gave his scan card to Lin. Her younger sister Meimei was standing and held by her father. Meimei grabbed the scan card. Her father took it from her and gave it to Lin.]*

Here, Lin found an empty Coca Cola bottle which she pretended was something to drink. She met her father's need of having something to drink. But her father still needed something to eat.

> *She walked to the toy basket again. She found an orange bag.*
>
> *Lin: **A money bag**.*

Image 6.4. "A money bag."

Father: 这个可以吃吗？<Can it be eaten?>

[Lin shook her head in disagreement.]

Father: 这个不能吃啊！<We can't eat it.>

*Lin: 这是给你的 **money**，你的 **money**, 刷你的 **money**。<This is for you and your money. Scan your money.>*

Father: 哦，那是钱啊。可是我肚子饿哦！你有没有卖东西可以吃的？<But I am hungry. Do you have anything I can eat?>

*Lin: 可是你的 **money** 在哪里？<But where is your money?>*

Father: 钱！我没有钱。哦, 我有卡片，刷卡。<Money. I don't have money. Oh, I have this. It's a card. Scanning the card.>

[Lin started to put all the money into the bag.]

*Lin: 你的 **money**。<Your money.>*

*Meimei: **Money**.*

*Father: 妹妹，你说 **money** 啊。你有卖什么东西可以吃的。<Meimei, you said "Money". Do have anything to eat?>*

Lin: 有。<Yes.>

Her father had another need; he was hungry and wanted something to eat. This was another task for her to sort out. She found a bag and pretended it was a money bag for her father. However, it was not what her father was after. This is the second conflict. Also, at this moment, Lin did not know how to say "money" in Chinese, and so replaced it with the English word. Her father did not consciously tell her how to say it in Chinese,

and only continued the conversation in their play. This shows that he wanted her to naturally understand the meaning of money in Chinese and to understand how to say money in Chinese through play. Their market play continued.

Father: 肚子饿了。卖什么东西？还是你要煮什么东西？<I am hungry. What do you sell? Or, will you cook anything?>

[Lin walked to her desk near the window.]

Father: 快点哦！<Please be quick.>

Lin: 煮什么？<Cook anything?>

[Lin is looking for her drawing pens.]

Father: 你有卖东西吗？<Do you have anything to sell?> 快点，我肚子饿死了。<Quickly. I am so hungry I could die.>

[Lin walked around.]

*Lin: **Wow**. 肚子饿。<Wow, Hungry.>*

[Lin walked to the table behind the sofa and looked for something in the drawer.]

Father: 肚子饿。<I'm hungry.>

Lin: 那你要画画吗？<Do you want to draw?>

Father: 我不要画画。我要吃东西啊。<I don't want to draw. But, I want to eat something.>

[Lin pointed to the kitchen.]

Image 6.5. "Eat there (in the kitchen)."

Lin: 吃东西在那里。<You can eat there.>

Father: 你不是有在卖吗？<Aren't you selling things to eat?>

Lin: 哦。<Yes.>

[She walked to the toy basket. She found a yellow ball and gave it to her father.]

Image 6.6. "Watermelon!"

Father：你有卖什么东西啊？<What are you selling now? >那是什么东西？可以吃吗？<What is that? Can I eat it?>

Lin: 西瓜。<A watermelon. >

Father: 西瓜。哇，西瓜啊。西瓜怎么变这个颜色？<Oh. Watermelon. Thank you. Why is the watermelon yellow?>

[They are laughing.]

...

Lin tried her best to look for something to eat in order to meet her customer's (father's) needs. Here, Lin suggested her father draw. However, her father did not want to draw, as he still wanted to eat. This is the third conflict in their play, which led to negotiation. Then, Lin suggested her father eat in their kitchen. Her suggestion shows her thinking move from fantasy to reality. In order to meet her customer's request, Lin found a yellow ball which was considered a watermelon. Her father accepted it, although he still needed more to eat. Her father explained the meaning of eating in detail.

Father: 有没有什么东西，我可以放进嘴巴，马上可以吃的，可以咬的。<Do you have anything I can put in my mouth and eat?>

[Lin kept looking for something to eat. Meimei followed her and looked in the basket as well.]

....

Father: 好。那你中午要吃什么？<Okay. What do you want to eat for lunch?>

According to her father, at this time he wanted to ask Lin what she would like to eat for her lunch. This question made their play move towards reality. This is outside of the play.

[Later, she found a cow.]

[Her sister picked up the cow.]

Father: 她要买。<Hi, she (Meimei) wants to buy it.>

Image 6.7. "Your card."; "Yeah. Like that."

*Lin: ?? 你的 **card**. <Your card?>*

Father: 跟姐姐买这个。<(To Meimei) You need to buy this from your sister.>

*Lin: ?? 你的 **card.** < Your card?>*

Father: 妹妹，把这个卡给姐姐了。<Meimei, give it to your sister. Scan your card. >

[Lin modelled how to scan the card for her father and Meimei.]

Father: 是这样子把它刷了。好，刷卡。<Yeah. Like that. Okay, scan it.>

*Lin: 给你的 **money**. <Give you your money. >*

Father: 钱啊，钱。找钱啊。 [Correcting Lin's grammar]<Money, money. Give you some change. >

[Lin's father found some coins in the money bag.]

Father: 好给你钱。<Okay, here you are.> Meimei took the money bag and looked at it.

Father: 妹妹，要买东西啊。 <Meimei, do you want to buy something?>

[Lin pressed the number on the register and took some change.]

Image 6.8. "Give you your money. Meimei, your money."

Lin: 给你，你的钱。妹妹你的钱。你的钱。你的钱。<Give you your money. Meimei, your money.>

Lin still said "money" in English. Her father repeated "money" in Chinese three times in an effort to introduce the concept of "money" into the selling and buying situation. The change that occurred next for Lin was that she became able to say "money" in Chinese and understand the meaning of "money" in the market situation. Furthermore, her father invited her younger sister Meimei to their market play. Meimei had a chance to experience the market play.

6.2.2 Analytical interpretation of play case example 1.

This is a market role play which enhanced Lin's Chinese vocabulary and helped her experience a market conversation. Lin initiated the market play as she was very interested in her new toy cash register and wanted to show her father how to use it. This play-episode turned into a market social situation, where Lin acted as a salesperson and her father pretended to be her customer. In this way, their play reproduced a real market scenario.

In the interview after the observation, her father believed this kind of play may have supported her language development. It encouraged her to develop the concept of "money" and her ability to use the cash register. They mainly used Chinese as their play language. Sometimes, her father used descriptive sentences to explain what he wanted, which helped her increase her Chinese vocabulary. Her father also continually asked for something to eat, which extended their play and enhanced her market experience. The idea of looking for something to eat was relevant because they would soon have lunch, which was reflected in the question her father asked, "What do you want to eat for lunch?" This also meant that they moved in and out of the play situation and reality.

The conflicts concerned Lin's father's needs and what was available at the market. Lin tried to solve the problem and gave many suggestions. For example, she suggested her father draw instead of eat. Her father's continued requests and engagement then further extended their play dialogue, demonstrating that these conflicts drove the progression of interactions and imagination in their play. Furthermore, the progress of Lin's service as a salesperson helped her to understand the job of a salesperson and see how important it is to meet the customer's needs. This is a kind of collaborative process which Lin and her father cooperated in together and one which enhanced her historical knowledge of markets. With her father's support, she developed her language through conversation during the play. The language-rich collaboration reflects the dynamic process of crystallising reality through the language developed during the collective imaginative play.

Lin's father provided Lin support in her play and aided her language development within her ZPD. He waited and responded to her services. He did not teach her Chinese formally, but chose to let her learn Chinese words and communicative skills by experiencing the social interaction. This is the point of emphasis in cultural-historical theory. It reflects Vygotsky's argument that collaboration with more competent partners, adults or peers, is beneficial for children's development. As a result of Lin's play with her father, her language was able to develop and be internalised, reflecting how the dynamic process of converging imagination and reality enhances children's higher mental functions.

6.2.3 Case example 2.

When I visited Lin's family during the third observation period, a play situation between Lin and her father occurred naturally. After dinner, Lin, her father, her sister and her grandpa walked to the park near their house. When they arrived at the park, Lin immediately walked towards the climbing wall near the slide. According to her father, this is her favourite place to play. She initially put some tanbark on the bench and engaged in a restaurant role-play with her father. Only a part of their play is transcribed and interpreted below. While they mainly engaged in Chinese language communication, **bolded words** indicate words spoken in English and red words indicate new Chinese words/concepts for Lin. Two questions need to be considered in the case example. How did Lin's father respond to Lin's imagined play? How did Lin engage in the collective imagining with her father in play?

Image 6.9. Play initiated by Lin.

Lin started to play under the slide area. She put some tanbark on the small bench.

*Father: **What are you doing?***

*Lin: **Making a soup.** [She continued putting more tanbark on the bench.]*

Father: 你在做什么啊？ <What are you doing?> [Her father squatted down by the bench to talk to her.]

*Lin: 做 **cooking**. <Doing some **cooking**>.*

Father: 啊。你在煮东西啊！要煮什么东西？ <Oh. You are cooking. What are you cooking?> [Her father put his hands under his chin, as if interested in her activity.]

*Lin: **What did you want?***

*Father: **What did you have?***

*Lin: **I have a lot of things.***

*Father: **Like...***

*Lin: **There is chocolate, ice cream and lily, and lollipop, and lots of yummy things like yummy chewy...like yummy yummy yummy chewy chewy ice creams.***

*Father: **Ice cream and chocolate are all sweet. And lollipop, I don't like this one.***

*Lin: **How about some fresh one?***

*Father: **What do you have?***

*Lin: **I have juice and fresh ones, and all different kinds of juice.***

Father: 我要喝果汁。<Okay. I want some juice. >

...

Lin initiated the restaurant play. Her father responded to her performance through a series of questions. It can be seen that Lin was very comfortable with her English. Lin pretended tanbark was soup, "fresh ones", juice and bread. In other words, she used tanbark as a substitute object to interpret her understanding of real objects; soup, "fresh ones", juice and bread at the restaurant. Her father's questions generated their collective imagining situation and enabled her to continue exploring the restaurant play experience. Her father's engagement not only supported her to explore the play situation, but also enhanced her Chinese vocabulary and language development, as shown in the following vignette.

Father: 你有面包啊。 我想要三明治和面包。<Okay. You have some bread. I want a sandwich and bread.> [Lin put some tanbark on the bench.]

*Lin: 好。这是给你的碗。 你要坐这里，就可以吃。<You have play ("**Wan**") here. You can eat it if you sit closer.>*

...

Father: 那我的果汁呢？<What about my juice?>

163

Lin: 你的果汁快要好，就放这个...插在里面。<Your juice will be ready soon. I need to put this...inside.> [She pretended to put the straw into the cup.]

Father: 果汁放的是吸管。<That is a straw in the juice.>

...

*Lin: **After** 我弄... **after** <After I put... after>. [She put some sticks on the bench. She tried to think of the right Chinese word.]*

Father: 这是什么？<What is it? >

*Lin: 这是个 fire。<This is **fire**. >*

Father: 是个火炉啊。<This is a stove. >

Lin: 火炉. <Stove. >

...

"Play" (wan) was an incorrect pronunciation in Mandarin – she tried to pronounce "bowl", but what she said was "play". Play and bowl have similar sounds with different tones in Chinese. It can be seen that she was still learning Chinese and needed more practice through communication. Moreover, this vignette of play shows elements of Western cooking, including bread, juice and sandwiches, which are part of their collective knowledge, reflecting that they live in a Western country. The content of the play was from Lin's everyday life. Her initiated play idea came from her observation of cooking at home and her restaurant experience.

In regards to her language development, Lin used English words to replace Chinese words she was not able to say, such as "after" and "fire". Her father did not ask her to copy his Chinese words, but put these Chinese words into context, such as "That is a straw in the juice", "This is a stove". Lin naturally imitated her father's words and tried to use them in the imagined play situation. This is the way she learnt Chinese words. Her father introduced her to new Chinese words contextually, which is further demonstrated in the next part of their play.

Image 6.10. "It is going to be a pretty shop."

[*Lin found some tanbark to put it on the footholds of the climbing wall from both sides.*]

Lin: **Put it here. This is a shop. It is going to be pretty.**

Father: 弄这么漂亮做什么呢？ *<Why are you making it so beautiful?>*

[*She continued decorating her shop.*]

Lin: 这样子就可以了。 *<It should be okay now.>* [*Then, she went back to the bench.*]

Father: 那我的三明治呢？还有我的果汁呢？ *<Where is my sandwich? Also, where is my juice? >*

…

Father: 那要多少钱呢？ *<How much is it? >*

Lin: 嗯，嗯…你给我钱先。 *<You first give me money. >*

[*This is the wrong grammatical use in Chinese. She translated it grammatically from English to Chinese. This is a syntactical structure problem.*]

Father: 多少钱呢？ *<How much?>*

[*Lin picked some tanbark to show her father.*]

Lin: 这个钱。 *<This is money. >*

Father: 要多少钱？我要跟你买三明治和果汁，要多少钱？ *<How much is it? I will buy a sandwich and juice.>*

Lin: 要一块钱。 *<One dollar.>*

Father: 噢，要一块钱啊。好，给你一块钱。 *<One dollar. Here you are.>*

165

[Lin's father pretended to give her one dollar. Lin pretended to take it.]

Lin: 谢谢！<Thank you. >

...

Lin tried to make her shop beautiful. She pretended the climbing wall area was her shop, which shows her desires to act like a shop owner. Again, her father continued asking her questions in order to introduce new concepts in Chinese in relation to the restaurant context. Specifically, her father used situational explanations to explain the "how much" question to Lin in Chinese. Finally, Lin was able to answer her father's question in Chinese and enhanced her Chinese vocabulary contextually. Also, Lin could expand upon her past experience through the collective imagining between herself and her father in the joint play. With her father's support, Lin pretended that the tanbark was money in addition to the sandwich, juice and bread, etc. Their play became more complex and richer through their collective imagining, which is shown in the next section of their play.

Image 6.11. "You are my assistant."

[Lin had a look at her fire.]

Lin: 可以煮菜. <It is time for cooking now.>

Father: 可以煮菜了。[It is time to cook.]

Lin: 你是我的...帮的... <You are my ...>

Father: 帮手。 <Assistant>

Lin: 你想帮我煮菜。<You want to help me cook.>

[Then she gave her father a cuddle.]

Father: 可是我是客人，我是顾客。要和你买东西哦。<But I am your customer and am buying something from you.>

Lin: 好，煮菜啊。<Okay. Cooking!>

...

Father: 要煮什么东西？<What do you want to cook? >

Lin: 你想煮菜吗？<Do you want to cook some vegetables?>

Father: 这是什么菜？<What kinds of vegetables?>

Lin: 这是可以吃的。<Vegetables can be eaten.>

...

*Father: 煮，煮、煮。放油。<Fry, Fry, Fry. Put in some **oil**. >*

[He pretended to add some oil and fry it.]

*Lin: 好了。我会放油。<Okay. I can add some **oil**.>*

[She turned back to her cabinet and found the oil.]

*Lin: 油在这里。<Here is the **oil**.>*

[She pretended to add some oil like her father.]

...

*Father: 那有没有盐呢？<What about **salt**?>*

*Lin: 哦，在这里。<Oh. Here is the **salt**.>*

[She pretended to add some salt onto the vegetables.]

....

It can be seen that Lin and her father actively engaged in their restaurant play. Lin used her own way to negotiate with her father so that he could be her cooking assistant. In this segment of play, Lin still initiated their play by deciding what to cook. Also, Lin's father introduced other new Chinese cooking concepts in Chinese such as "oil" and "salt", which helped her to experience the Chinese cooking process and enhance her Chinese vocabulary. Their Chinese style of cooking reflected their Chinese cultural background, which is shown to be a part of their collective knowledge and imagination. Continually, their collective imagining became richer through their extended play dialogue and negotiation. This can be seen below when her father said, "Where is the meat?" and "This is the meat".

Image 6.12. Negotiation in joint play.

Father: 肉在哪里? <Where is the meat? >

Lin: 这里。<It should be here.> [She looked for it.]

Father: 肉在这里啊。<Oh. This is the meat.>

[Her father picked up some tanbark from her cabinet.]

Lin: 这是饭。<It is rice.>

Father: 哦，这是饭，拿错了，拿错了。<Oh. It is rice. I chose wrongly. I chose wrongly.>

[He put the rice back in the cabinet.]

Father: 那你的肉呢？<Where is your meat?>

Lin: 饭也是在地上。饭在地上。都在地上。<The rice is on the ground. Everything is on the ground.>

 (Actually, the tanbark is on the ground everywhere.)

Father: 肉呢？肉在哪边？<Meat? Where is the meat?>

Lin: 肉，肉。<Meat, meat.>

[She found her meat and put it on the bench.]

Father: 炒肉，炒肉。<Cook the meat. Fry the meat.> [He pretended to fry the meat.]

Father: 还是用烤的？<Or barbecue?>

Lin: 用烤的。<Barbecue.>

Father: 用烤的也可以。*<Barbecue should be okay.>*

...

Father: 那你还要煮什么？*<What else do we need to cook?>*

Lin: 饭。*<Rice.>*

Father: 饭。煮饭。*<Rice. Cook some rice.>*

Father: 煮饭，那要先…洗一下米。*<When cooking rice, we need to wash the rice first.>*

[Lin put her rice on the bench.]

Lin: 先过来洗这边。*<Okay. Come here first and wash it.>*

...

 At this point in their play, her father used different strategies to encourage Lin to continue their cooking play, such as questioning and negotiating. In other words, the negotiation made their play experience become more complex. It shows that her father's involvement contributed to the play as he had much more past experience than Lin. An adult's engagement plays an important role in the child's imagination development, and thus, the child's language development. Here, we again see that under her father's support, Lin's role-play becomes richer and more complex as she uses tanbark as meat and rice. This helped to develop her imagination and Chinese language in relation to Chinese cooking ingredients and concepts, such as rice, meat and barbecuing. The following segment of their play continues to show their negotiation and how Lin understood new Chinese words contextually and conceptually by achieving intersubjectivity.

Image 6.13. Hot and cold water taps.

169

[They went to the top of the slide. Lin pointed to the railing. It acted like the other side of the kitchen.]

Lin: 洗手在这里。<Wash hands is here.> [This is a grammar mistake in Chinese.]

Father: 水龙头在这里啊。<Here is the water tap.>

Lin: 水龙头在这里。<Here is the water tap.>

[She pointed to the railing pretending it is a "water tap."]

[Her father pretended to turn on the water tap.]

Father: 打开。洗手。<Turn it on and wash your hands.>

[He pretended to wash his hands.]

*Lin: 可是...这个是烫的，这个是...**cold**. <But, this is hot, and that is... **cold**.>*

[She pretended to point out the different water taps.]

Father: 那是冷的。<That is cold.>

Lin: 嗯。冷的在这里。<Yes. Here is the cold one.> [She pointed to the cold tap.]

Father: 和我们家的不太一样。我们家的热的在这边，冷在那边。<It is different from our house. Here is the hot one and there is the cold one in our house.>

…

Lin could not say the Chinese word "cold", but used the English word to replace it. After her father gave an explanation, Lin imitated her father's words with a variation, saying "Here is the cold one" in Chinese. Lin's father mentioned their house water taps to compare to her imagined water taps, which helped her understand the new word in Chinese in a contextual way. That is, Lin's father compared their house water taps to Lin's imagined situation, which helped her understand "cold" in Chinese and subsequently use it in a new sentence construction of her own, thus appropriating the word and its meaning. Moving in and out of play supported her imagination and language development.

Image 6.14. Meimei involved in play.

[Lin's sister Meimei came and joined them.]

Father：妹妹来啦，妹妹来了。妹妹也来玩了。*<Meimei come here. Meimei, come. Meimei, come and play too.>*

[Meimei added some tanbark on the bench.]

Lin: 不行，这是碗。*<No. This is a bowl.>*

  ...

Meimei came to join their play after she had played on the slide with her grandpa. Their father welcomed Meimei to join their play. Meimei was observing their play. She could not engage in and contribute to the play as Lin did since she was not able to understand the whole imaginary situation in terms of her imagining and language competence. However, she was able to get a sense of the imagined play despite being outside the play, since she was observing, listening and engaging.

6.2.4 Analytical interpretation of play case example 2.

This second play case example is part of Lin's shared family activities in her daily life. Her parents understood her interest in role-play. In conversation in the first interview, her father mentioned Lin's interest and his belief that this kind of play could support her language development. Her father also liked to engage in her play. This case shows her interest and her father's engagement and support. In addition, Lin's parents also support

her in experiencing a lot of social roles in daily life, such as cooking with her mother, going to the library and restaurants, and grocery shopping.

In this play episode, when Lin and her family had walked to the park after dinner, Lin went directly to the climbing and slide area, which is where their play occurred. Lin initiated the restaurant play and her father gave her a positive response. This play turned into a restaurant social situation where Lin acted as a restaurant owner and her father acted as her customer and later as her cooking partner. The rules of running business in Chinese culture are clearly shown through their social roles and play actions.

Their play shows Lin was still developing her Chinese. She tried to use some English words to replace unknown Chinese words, confirming her parents' understanding of her language development in that her English is better than her Chinese. At the beginning of the play, her father responded to her in English in order to understand what she was doing. From the interview held after the occasion of this play vignette, her father wanted her to improve her Chinese through the imagined play. So, he changed to speaking Chinese after playing for a while.

Lin and her father both actively participated in the play. Lin's father took different positions while involved in Lin's role-play. He used discussion, questions, and negotiation, and actively responded to extend her imagination and enhance their play. She had the chance to imitate his words and actions, thus improving her imaginative thinking and Mandarin in use.

In their play, with her father's support, Lin used tanbark as a substitute object for a sandwich, juice, rice, vegetables, etc. This was determined by the needs of their play. Her father used communicative strategies to introduce new Chinese cooking concepts (making a sandwich or frying meat) to their imaginary situation and presented a cause-effect relationship within a restaurant situation through negotiation. This then motivated her to think further about the play and also enabled her to experience Chinese cooking steps.

In this example, her father used communicative strategies to support Lin's imagined play and language development in terms of his understanding of Lin's language and cognitive competence. The strategies are reflected by the different positions he took when he interacted and talked to Lin. This is discussed in the next section.

6.3 Discussion

During the data analysis some important thoughts from cultural-historical perspectives came to the foreground right from the start. To follow the same set-up as the theoretical framework (see Chapter 3) and literature review (see Chapter 2), the identified concepts will be discussed in turn.

6.3.1 Objects, meaning and action in Lin's play.

From a Vygotskian perspective, in play "children operate with meanings severed from objects and action" (Vygotsky, 1966, p.13). It is theoretically impossible for a preschooler to sever the meaning of a word from an object directly. They must borrow a pivot for severing thoughts from objects by using substitute objects/actions as symbols to replace and sever the meaning from the real objects/actions. Lin pretended the empty Coca Cola bottle was a drink and used a yellow ball as a watermelon in case 1 when she was looking for something to eat for her customer (her father) during the market play. In case example 2, Lin's restaurant play with her father, Lin started to use tanbark as a substitute object in place of the sandwich and juice, and later, rice, vegetables, etc. Therefore, with her father's support Lin was able to separate the meanings of the different foods (drink/watermelon/sandwiches/juice) from the actual objects and implant those meanings in substitute objects (an empty Coca Cola bottle/a yellow ball/tanbark) in her play. That is, Lin used words and signs (food/cooking actions) in a symbolic way in fantasy play. As Vygotsky (1987d) notes, preschoolers are not able to separate objects from the words that label the objects, and therefore, Lin borrowed the substitute objects (empty bottle/yellow ball/tanbark/bench) as a pivot to sever her thoughts from real objects/actions. The empty bottle, yellow ball, tanbark and the bench, as substitute objects, became cognitive tools, which Lin relied on as mediators to imitate real buying and selling in a market and cooking in a restaurant. By doing so Lin was also able to

173

become fully conscious of the objects (drink/watermelon/sandwiches/juice) and even the substitute objects (bottle/yellow ball/tanbark) in play. In other words, the play experience with her father enhanced her understanding of the meanings of the objects and Chinese vocabulary.

The changing cognitive processes in preschool play are closely intertwined with "the use of concrete objects as mediators and the enactment of representation actions in the production of meaning" (Duncan & Tarulli, 2003, p.275). Lin unconsciously made use of the fact that she was able to separate the meaning of "watermelon", "sandwich" and "juice" from their actual objects. From this perspective, Vygotsky (1966) argues that "a child first acts with meanings as with objects and later realizes them consciously and begins to think, just as a child, before he [sic] has acquired grammatical and written speech, knows how to do things but does not know what he [sic] knows" (p.13). Imitating the actions and words/voice of a salesperson or a restaurant owner in play, Lin was able to learn how to recreate actions and move towards the behaviour of role models (salesperson/restaurant owner), then practise and internalise the intentional behaviours and social rules.

6.3.2 Lin's motives.

In Case Example 1, Lin initially performed as a salesperson and tried to sell things to her father, which showed her desire to be a salesperson in the market. In Case Example 2, in the beginning of the play interaction, Lin spontaneously took on the role of a "restaurant owner" and began to speak to a customer (her father). She initiated the restaurant play, which displayed her motives to cook in a restaurant. Her father consciously responded to her actions in order to extend the play dialogue and enhance the imaginary situation, thus supporting her heritage language development. There was a possibility for her Chinese language to develop in their joint play. And with her father's support, Lin was able to act like a restaurant owner. This echoes El'konin's (2005c) argument that children have the desire and motives to act like adults, as shown through their interest in imitating real relationships through play. This is the centre of make-believe play (Bodrova & Leong, 2003). On the one hand, in Lin's case, her role as a 'salesperson' or a 'restaurant owner' reflected her observations from everyday life. According to her

174

parents' response in the first interview, she was very happy to observe or join in grocery shopping and cooking at home and enjoyed restaurant experiences with the family, reflecting that children's impressions and experiences in everyday life shape the basis for their role play (Ugaste, 2005). On the other hand, by taking on those specific roles, Lin illustrated the universal desire to "act like an adult". Her father consciously responded to her desires by asking many questions, which resulted in a productive play dialogue. It enabled Lin to express her own ideas and experience Chinese language in practice. It also met her father's demand for Lin to use Chinese in role-play. Therefore, the interaction in joint play indicates the strong emotional bonds between Lin and her father. Lin's subjective sense of cooking, selling and buying was shaped by her motive to be a salesperson or restaurant owner and the symbolic process within the imagined play. Within the symbolic process, under her father's conscious support, Lin's knowledge of Chinese has been internalized.

6.3.3 The dialectical process of imagination in Lin's play.

Lin's role-play experiences at home show her father's interactive support of Lin's play. Her father's support extended their play experience and encouraged her to continue playing and thinking. Furthermore, their play shows the dynamic process of imagination and reality. This is examined by Vygotsky (1987b), who states that "the key transition point in the development of both thinking and imagination corresponds with the appearance of speech (p.349)."

6.3.3.1 Extending the play dialogue through valuing and broadening the experience.

Because of Lin's imagined play, her father was given the opportunity to respond to her actions consciously and collaboratively. In both case examples, through her father's involvement Lin was able to connect with the historical knowledge of cooking in restaurants and the relationship between selling and buying at markets. This also reflects that children learn social roles and rules through their play activities. The imaginary situation Lin and her father created in the play interaction represents how people conduct business in restaurants or markets in Chinese culture. According to Vygotsky (1966),

"Wherever there is an imaginary situation in play there are rules…rules stemming from the imaginary situation" (p.10). In Lin's restaurant play with her father, the specific way to service the customer in the restaurant contains social rules, which their play enacted. That is, the rules behind the role-play offered an opportunity for her father to ask Lin further questions, reflecting the selling and buying relations. Consequently, Lin could express her ideas and practice her Chinese.

As Fleer (2010) states, for young children, imagination helps make children's previous experiences and motives visible to adults, who are then able to make a connection between context and concept. In Example 1, Lin initially displayed her motive and desire for market play by using her new toy cash register, which enabled her father to consciously respond to her actions by requesting something to eat. This extended the play dialogue and broadened her experience within the imaginary play. For instance, when they started the imagined play, Lin's father expressed what he wanted to buy, giving her position as a salesperson purpose. Also, Lin's father explained his need to eat something because he was very hungry. Again, when Lin asked for payment, her father introduced another new concept which was "change".

El'konin (2005a) claims that "introduction to various aspects of real life may have greater or lesser significance in stimulating role play" (p. 42). In other words, the social environment around the child is the source and conditions for the development of children's play. Lin's father helped her to create a richer and more complex play experience by consciously requesting something to eat again and again, and introducing new concepts and words in Chinese such as "change" and "money" in Case Example 1. Lin performed her role as a salesperson and tried to meet her father's needs. As a result, by resolving conflicts Lin enhanced her imaginary play and language use by imitating her father's words and actions, and regulating her behaviour through self-talk. For instance, she said "This is your money. Your money, your money", which broadened her role as a market owner and her understanding that the customer needs to pay if they want to buy something.

In the Case Example 2, Lin's father's support is shown in a different way. Lin's father consciously asked her a series of questions in order to introduce new concepts and words

176

in Chinese. For instance, she said "This is a shop and it is going to be pretty", which broadened her role as a restaurant owner. When her father asked her "where is the meat?", she replied in Chinese "Meat, meat". Lin was not simply copying the word, but regulating her behaviour by looking for meat to cook. Vygotsky's perception of imitation is not simply a mindless copy of actions, but can be seen as all kinds of activity of a certain type that are carried out by the child in cooperation with an adult or a more capable peer (Vygotsky, 1998f). Each time Lin's father mentioned new concepts such as "meat", "barbecue", and "cook some rice", Lin naturally imitated what her father said. Overall, Lin's imitations enhanced her cooking experience, controlled her cooking actions, developed her abstract thinking, and intuitively developed her Chinese vocabulary.

It is acknowledged that in Example 1 of market play, her father did not consciously teach her how to speak Chinese, but naturally supported her in understanding the Chinese words in the play. For example, when she said "money" in English instead of Chinese, her father did not choose to tell her that "qian" is Money in Chinese. Alternatively, he kept talking to her about "money" in Chinese. Finally, Lin was able to imitate it herself when she talked to her sister. This is congruent with Vygotsky's belief that "the child knows words only to the extent that they are given to him by the people around him" (1998, p.111).

The play experiences helped Lin master her individual imagination and imitation, and in Case Example 1 gave meaning to the yellow ball as a watermelon, the empty bottle as a drink, the toy cash register as a real cash register, and the round chips as change. In Case Example 2, Lin gave meaning to the tanbark as vegetables, oil and salt in Chinese cooking. Imitation in play provides the opportunity for children to recreate actions and move towards an adult model, enabling internalisation. Specifically, appropriate language use in play is imitated to improve the quality of play, such as expressing shared meaning and play planning. This is related to Karpov's (2005) work, which stresses that adult intervention can also come in the form of explanations of social roles and relationships. As a result, Lin naturally understood the Chinese phrases and vocabulary (such as change and money in Case Example 1, and frying vegetables, straw, stove, barbecue, and how much questions in Case Example 2) through her father's interaction,

177

demonstrating how children acquire skills from more expert members of their community through adult-child pedagogical interactions (Vygotsky, 1997b).

6.3.3.2 Disassociation and reassociation within conflicts.

Using Fleer's (2010) model in Chapter 3, in Lin's market play in Case Example 1 it can be argued that a new psychological structure formed because of the buying and selling relationship introduced by Lin's father (through questioning and responding), which was subsequently applied by Lin in her imitation, enabling her to explore the market service and the sales process at the market. In this way, cultural concepts and culturally-specific language (general market knowledge and Chinese language) contributed to new psychological functions (Lin's imagination), which naturally altered her behaviour (ability to serve the customer) and improved her language use. This is the dynamic psychological process of disassociation and reassociation of cultural concepts within play. Case 2 also exhibits a similar process of disassociaiton and reassociation. Chinese cooking methods were introduced by Lin's father through questioning and responding and practised by Lin in her imitation, enabling her to reconnect the separate processes (the cooking steps) and components (the cooking ingredients). In this way, cultural concepts of general Chinese cooking knowledge and Chinese language contributed to new psychological functions (Lin's imagination), which naturally altered her behaviour (ability to cook) and enhanced her language use. The Chinese cooking steps and styles they imagined show the particular rules of Chinese cooking, which supports Vygotsky's (1966) argument that as the imaginary situation always contains rules in play, so does every play with rules have to contain the imaginary situation. Her father introduced the rules of Chinese cooking to extend their imaginary situation, thus supporting her development of imagination. In this framework, the conflicts in Case 1 and the role play acting negotiated in Case 2 between Lin and her father drove the progression of interactions and imagination.

From the analysis, it seems clear that the disassociating and reassociating process occurred as a result of the conflict between Lin's and her father's intentions in Case 1. Lin's father showed his interest in Lin's initial play by sitting on the floor and responding to her actions. Lin was also supported by her father in focusing specifically on serving

the customer at her market. Furthermore, Lin's father continuously requested something to eat and encouraged her to serve him and look for the items she needed in the play. Thus, Lin had the opportunity to think and solve the problem, which resulted in disassociation. Lin gave her father a few suggestions, such as drawing, eating in the kitchen, and eating the 'yellow ball'. The conflict between her father's needs and Lin's demands supported her exploration of the buying and selling social relationship, resulting in the reassociation of market service. What does this mean when considering the family pedagogy in relation to language development?

Intersubjectivity in play involves play partners continually exchanging ideas and knowledge. When looking at the pedagogical approach to play, it is necessary to recognise that role-play requires intersubjectivity, and that children engage in mutually accepted play interactions (Göncü, 1993). Imagination is considered as being fundamental to the dialectical interaction of an individual with their environment and the intersubjective understandings amongst play partners (the selling and buying relationship or different methods of cooking). Children achieve intersubjectivity in play by mostly negotiating ideas with each another. In both of Lin's play scenarios, Lin and her father jointly shared their imaginings. In Case 2, when Lin asked her father to help her cook, her father countered, "But, I am your customer and am buying something from you." Lin then cuddled her father in order to persuade him to assist her, saying, "Quickly. Come over to help me cook." Eventually, they began cooking together. Moreover, negotiations and discussions about what to cook and how to cook are illustrated in their play as well, based on their shared understanding of cooking. For example, when Lin's father asked her what she wanted to cook, Lin then asked her father whether he wanted to cook some vegetables.

The conversation between Lin and her father shows that in play their shared understanding existed in the exchange of ideas and discussions on cooking. In other words, shared understanding is the foundation for reasoning through language, clearly demonstrating intersubjectivity (Mercer, 1995). This confirms Fleer's (2010) insight that children and adults can "enact new practices together through play because they [have] achieved conceptual and contextual intersubjectivtiy" (p. 15). Lin and her father's

negotiated act, which this study shows to be a result of intersubjectivity, helped them to disassociate and reassociate their imaginary processing.

Furthermore, the intersubjectivity of Lin and her father led their interactions in terms of everything that was said and done before receiving a verbal or nonverbal response. In other words, their intersubjectivity resulted in their play communication. Lin's father intended to provide Lin opportunities to talk through questioning and negotiating so she could practise her language and expand her Chinese vocabulary. The guided support was a necessary pedagogical practice that extended Lin's imagination in order to support her language development. From the child's perspective, children should be able to develop their language by having the opportunity to use language to reason, argue, and explain, which can be categorised as subjective effective learning discourse (Mercer, 1995).

6.3.3.3 Crystallising imagination into reality.

Imagination, as the basis of all creative activity, is an important component of absolutely all aspects of cultural life, enabling artistic, scientific, and technical creation alike. In this sense, absolutely everything around us that was created by the hand of man, the entire world of human culture, as distinct from the world of nature, all this is the product of human imagination and of creation based on this imagination. (Vygotsky, 2004, p.10)

Here, Vygotsky (2004) argues that in the dialectic relationship between imagination and reality, imagination is directed by reality and "all the objects of common life appear…as crystallization of the imagination" (p. 7). In Lin's play cases, the content of her imagination that was developed involved the cultural-historical knowledge of buying and selling, and cooking. Lin's role in her imagined situation was a salesperson in a market in Case 1 and a restaurant owner in Case 2. With the help of her father, Lin was able to utilise her Chinese language (as a cultural tool) to engage her imagination. In turn, her imagined play experience guided her in making sense of social relations and rules between buying and selling in Case 1 and cooking methodology in Case 2, and supported her to engage in appropriate practice and resolve language difficulties.

Lin's father applied strategies such as questioning and negotiating in order to encourage Lin's exploration of market and restaurant situations and develop her abstract thinking, which resulted in an improvement of Lin's language and vocabulary. Furthermore, as a consequence of Lin and her father's active participation in the play activity, the dynamic process of the convergence of imagination and reality enabled Lin's language development to be internalised, enhancing her higher mental functions in both of Lin's play cases. This is represented in Figure 6. 1 below.

Father's support in language use

Collective imagining

History of cooking and collaborative interaction

Extending the play dialogue through valuing and broadening the experience
Generating disassociation and association of Chinese cooking style in negotiated act
Crystallizing imagination into reality of attained cooking knowledge, enhanced relevant vocabulary and grammatical language use

Imitation and consciousness of cooking knowledge

Lin's imagining

Lin's language development in play

Figure 6.1. **Lin's language development through her imagination (Adapted from Fleer, 2010, p.143).**

On the one hand, Lin's father used the imaginary play situation as a pedagogical tool to help Lin experience Chinese cooking and expand her vocabulary and language use within the learning discourse. On the other hand, Lin initialised the joint play and attained intersubjectivity in terms of their imaginings. Consequently, she imitated her father's cooking and language use in play, and built up her cooking knowledge in reality.

As Vygotsky states, a child's full development "depends on a cooperative interaction between the child and an adult who represents the culture, and assists the child in acquiring the necessary symbolic tools for learning" (Kozulin, 1998, p.96).

Furthermore, Lin and her father collectively imagined a Chinese cooking experience. For instance, in Case 2 when they started cooking together, Lin's father explored new concepts such as vegetables, oil, salt and meat, and introduced cooking methods by asking if Lin wanted to fry or barbecue the meat, which extended their imagining space. In their restaurant play, the tanbark also became vegetables, meat and rice, which supports Vygotsky's argument that imagination is a process directly connected with meaning making (Gajdamaschko, 2006). Thus, in this case, Lin and her father collectively imagined a Chinese cooking situation, explored their play experience and moved towards reality as they explored the roles and rules associated with restaurant cooking.

As a result of their shared imaginings, their play also became richer and more complex. Negotiations and discussions about what to cook and how to cook are illustrated in their play, based on their shared thinking and understanding of cooking. Consequently Lin developed her individual imagination in play, moving her individual imagining towards reality, whereby she was able to understand and make sense of new concepts of Chinese cooking, and enhance her Chinese vocabulary in the field of cooking through imitation.

Both play cases focus on the role of imagination in play in bilingual heritage language development through a cultural-historical framework. They provide examples of how to support language development within imagined play situations, and further confirm the connection established by Vygotsky between play and language development. It should be noted that this study pays attention to preschoolers' bilingual heritage language development as a dialectically dynamic process in play, in order to identify for parents better pedagogical tools for thinking about and supporting their children's development. The father, as an active participant in joint play activities, applied strategies such as questioning and negotiating in order to encourage his child's exploration of new concepts and word meaning. In the process of exploration, Lin was able to develop her abstract thinking, which resulted in an improvement in language and vocabulary. As a

consequence, her language was able to develop and be internalised, as the dynamic process of converging imagination and reality enhances children's higher mental functions. In both cases, the dynamic process of Lin's language development can be seen as the result of the development of her imagination through shared understandings in play. That is, the reason Lin could improve her language in use in play was because of the development of her imagination in shared play. However, the way in which Lin's imagination development occurred in play was due to Lin's imitation and her father's support. The following two sections specifically use play Case Example 2 in order to discuss how Lin's father supported her language and imagination development within the ZPD.

6.3.4 Lin's imitation in play within the ZPD.

According to this play experience, it can be ascertained that Lin was most comfortable using English. When she was not able to use Mandarin to express her ideas, she would use English. For example, at the beginning of the play, she preferred to speak English and only when her father spoke to her in Mandarin, did she attempt to communicate in Mandarin. This reflects a family rule where Lin needed to respond in English when her parents spoke to her in English, and Lin needed to speak Mandarin when they addressed her in this language. She also used some English words to complete her Mandarin sentences, such as "fire", "mix" and "after." Another point noted was that Lin only used very simple Chinese sentences or phrases. Thus, it can be seen that her father not only supported her Mandarin, but also actively extended her vocabulary, and thus her learning and development.

Similarly, during play Lin imitated her father's words and actions, which supported her ability to control her own behaviour through self-talk. For example, when her father asked, "where is the meat?", she responded in Chinese "meat, meat", not simply copying the word, but controlling her behaviour by looking for meat in her restaurant. Lin's imitation not only contributed to her performance in play, which was determined by her ZPD, but also added to the potential for intellectual and language development.

It can be seen that Lin was able to further expand her understanding of "restaurant owners" and explore her cooking skills in play. This is congruent with Vygotsky's (1987d) argument that imitation demonstrates some possibility of the child being able to accept instruction not for what he [she] can do independently, but for what he/she cannot do yet. In Lin's case, her father's interactive support within her ZPD depended on her potential to imitate. Through her imitation, Lin's father could effectively support Lin's imagination in play and contribute to her Mandarin development in the Chinese cooking field. Her father's interactive support within her ZPD was very important to the development of Lin's imagination and ability to make sense of cooking steps, as shown by this play experience.

6.3.5 Lin's father's interactive support in her ZPD.

In Case 2, Lin's father used communicative strategies to support Lin's Mandarin skills in her zone of proximal language development, because of his desire for Lin to improve her Chinese language skills. This is reflected in his conscious responses to their play situation. The *conflict* occurs between Lin's motives in imagined play and her father's demand, which provided the opportunity for her father to use play as a pedagogical tool to support her Chinese language development. Introducing new cooking concepts based on his own knowledge, and negotiating cooking styles enhanced their play experience. According to Kravtsova (2009), Lin's father created different logic positions for himself in terms of Lin's zone of proximal development to support her imagination and Mandarin language development.

First of all, Lin's father placed himself in the position of "equal" to Lin, introducing new cooking concepts. He asked the question "where is the meat?", which helped Lin to expand her thinking and express her ideas. This indicates that there was negotiation when they shared their understanding of Chinese cooking. Again, when Lin's father questioned whether they needed to fry the meat or barbecue it, his position was in the "equal" position to negotiate with Lin on how to cook. Furthermore, when Lin's father picked up some tanbark pretending it was meat, Lin responded directly with, "It is rice," demonstrating that negotiation of the play had been initiated. The "equal" position between them is also reflected through her father's waiting, listening and responses to

184

Lin's ideas in their play dialogue. Lin's father explored the imaginary situation with Lin rather than giving direct instruction. Adopting this position of equal is a very important strategy in developing children's language.

Lin's father also took the "above" position in their play when he asked in Mandarin how much the sandwich and juice were, as Lin could not understand the concept of "how much" in Mandarin. Her father continued explaining this question in Mandarin to Lin with "How much is it? I will buy a sandwich and juice," and used explanatory talk to help Lin understand the question in Mandarin in a buying and selling situation. It is evident that he understood his daughter's language ability. Consequently, Lin could respond: "One dollar." Lee and Smagorinsky (2000) agree with Steiner and Meehan's argues that "imagination and thinking is a complementary relationship in which social groups are involved in the process of constructing new knowledge by internalising some aspect of collaborators' knowledge" (p. 8). Also, When Lin used the English word "cold" to replace the Chinese words "leng 冷", Lin's father did not tell her how to say "cold" in Chinese. Her father borrowed from a real situation, using their house water taps as an example, so that she could compare them to her imagined water taps. In that way, Lin understood this new word and word meaning contextually, then used it in her own way, having internalized it. Within Lin and her father's collective imagination, Lin engaged in the process of constructing new knowledge of Chinese cooking by internalising her father's words and actions in play. In addition, Lin's father also put himself in the "above" position each time he mentioned new concepts such as "oil", "salt", and "put the lid on". Lin unconsciously imitated what her father said, and therefore made sense of the cooking steps that promoted her individual imagining. This matches with Vygotsky's argument that "the child knows words only to the extent that they are given to him [sic] by the people around him" (Vygotsky, 1998a, p. 111).

Furthermore, when Lin's father asked Lin "what is it (fire)?" and "What else do we need to cook?" he positioned himself in the "under" position. At this moment, Lin had initiated the play and had the power to decide what she wanted to imagine, while her father did not know what she was pretending to do. This provided Lin with a chance to imagine and share her ideas, and gave her father the chance to extend the imaginary

185

situation. Lin attempted to respond in Chinese, and as a result, Lin enhanced her Chinese vocabulary and practised her Chinese grammar.

Finally, Lin's sister was also involved in the latter part of the play. Their father invited Meimei to join them by saying, "Meimei, come here to play too." She imitated her sister's actions and put some tanbark on the bench, although Lin explained to her, "No. This is a bowl." Although she could not engage in such a complicated play situation, she still observed their play. Her father, in observing that she could not participate in such a rich play event, explained to her; "Your sister will cook the vegetables soon." It was evident that Meimei was beyond the borders of her ZPD and in the position of the "greater we", while she tried to make sense of this play situation.

To summarise, in this example of Lin's play with her father at the park, they collectively and imaginatively explored Chinese cooking. Lin's father consciously created different positions for himself to communicate with Lin in terms of Lin's Chinese language abilities and developmental level (See Figure 6.2). He took an "above" position to introduce Chinese cooking knowledge, an "equal" position to negotiate how to cook, and an "under" position to ask about what Lin had decided to cook. It is the way her father communicated with Lin that shows the communicative strategies he used in subject positioning. The position her father took depended on how he asked the questions and how Lin responded to the questions. This study aims to show that the ways adults communicate with children makes a difference to children's thinking and language development in play. Lin's father considered play as a pedagogical tool to support her play and Chinese language development. Consequently, Lin imitated her father's cooking actions and language use in play, internalised cooking knowledge, and practised her Chinese language vocabulary and grammar. Moreover, as a consequence of Lin and her father's collective imagination in the play activity, they moved towards reality, as Lin made sense of Chinese cooking and developed her Mandarin language capabilities. This is the dynamic process of the dialectical relationship of imagination and reality.

Father's support in Lin's heritage language development

Collective imagining
Father's support:
Above/under/equal Positions

History of cooking and collaborative interaction

Valuing and extending Chinese cooking experience through play dialogue
Generating disassociation and association of Chinese cooking style in negotiation acts
Crystallizing imagination into reality of attained cooking knowledge,
enhanced language use in Chinese cooking

Shared awareness

Reality

Imitation and consciousness of cooking knowledge

Lin's imagining

Lin's Chinese language development in play

Figure 6.2. **Father's interactive support in Lin's Chinese language development in joint role play.**

Additionally, Lin's language development can be seen as a direct result of their play, which acted as the leading activity for Lin and her father's communicative strategies, and which created a zone of proximal language development. Therefore, "a child's greatest achievements are possible in play" (Vygotsky, 1966, p.14). Preschoolers may achieve the highest level of development through play.

6.4 Chapter Conclusion

The analysis and discussion of Lin's play illuminates how a parent was involved in his child's play activities in order to support her bilingual language development in the home context. The analysis examples provide a new direction for researching parent and child interaction in relation to their language development, and by using Vygotsky's (2004) work on the dialectic relations between imagination and reality and Fleer's (2010) dialectic model of imagination in play, new insights into language development were possible. In home contexts, parents have the privilege to be distinctly positioned to draw upon their native language to assist their children's bilingual heritage language development in the English-speaking majority Australian society. Thus, how parents support their children's heritage language development is a very important component.

The analysis of Lin's two play cases shows that collective play with adults in which instruction and support are provided effectively alters children's behaviours and language in play and changes children's zone of proximal development.

By applying Kravtsova's (2009) subject positioning theory to this study, it was possible to note the communicative strategies used by Lin's father to support Lin's bilingual heritage language development. Lin's father, as an active participant in the jointly constructed play context, could apply strategies such as negotiating and questioning to extend Lin's Mandarin capacity, in order to encourage her exploration of new concepts and meaning making in Chinese cooking, which further enhanced her Mandarin development and thinking. The findings bring new insights into how parents can interactively support children's home language development in play contexts through the utilisation of pedagogical tools.

This study also contributes to the understanding of subject positioning theory and has extended understandings of the use of these strategies to family pedagogy concerning children's bilingual heritage language development. The chapter examines how subject positioning theory provides instructive strategies that adults may apply in joint play to develop children's language skills. It aims to assist parents in understanding that the ways of communicating with children are determined by their knowledge of their child's development, and that communicating appropriately can make significant differences to their child's development.

Chapter 7

Family Practices- Everyday Household Activities

> Most important may be arrangements that allow children to be in places where they can observe and begin to help. (Rogoff, 2003, p.319)

7.1 Introduction

According to the cultural-historical views on play, the dialectical relationship between play, imagination and reality demonstrates that children's role play is derived from children's everyday activities, which was discussed in Chapter 3 and applied to data in Chapter 6. As a corollary of this understanding, it is important to introduce children to the richness and diversity of the world in everyday life. Chapter 5 introduced Yi's, Lin's and Wen's everyday activities in the home, answering the second research question, which looks at other interactions between parents and children that appear to be important in supporting children's Mandarin development. All parents believe that household activities are very important in encouraging their children's language development. This chapter focuses on children's everyday household activities with their parents and aims to understand how parents interact with their children through dynamic communicative processes.

As mentioned previously (see Chapter 5), the parents made an effort to do a great deal together with their children every day at home. Joint activities took place nearly every day, especially on holidays. For example, parents and children visited public libraries, did artwork, visited their friends' houses, watched television, went to church, etc. Household activities were particularly stressed by the parents in the interviews. The parents believed that daily household activities were important in supporting their children's bilingual heritage language at home. The following sections select some examples from the data sets of the three families, discussing the interactions between parent and child in household activities and parents' supportive strategies in supporting their children's Mandarin development. It aims to answer the current study research

questions regarding family involvement in preschoolers' bilingual heritage language in the everyday home context, along with insights from Vygotskian theory (See Chapter 3).

The first part of this chapter displays Yi's family dinner-table conversation at home. It shows how Yi initiated their dinner conversation and how her parents engaged in her thinking and actions. The discussion of the data shows Yi's parents' family pedagogy in supporting Yi's thinking and language development.

Lin's baking activity at home with her mother has been presented at the second part of this chapter. It examines the way Lin's mother communicated with Lin in the ongoing activity. The analysis and discussion shows that the way in which parents asked Lin questions made a marked difference to Lin's language development through a particular activity.

The third section of this chapter portrays Wen's gardening at home with his father. It analyses how Wen's father encouraged him to join the gardening and how Wen experienced this Chinese language environment. The investigation indicates Wen's father's strategies in supporting his heritage language practices.

This chapter begins with three case examples of household activities and analysis of parents' and children's perspectives and the role taken in the activities. It examines the ways parents engage in their children's household activities, thus uncovering the pedagogical strategies in supporting children's heritage language development.

7.2 Child-Focused Conversation within Yi's Family

Speech activities commonly occur at the family dinner-table (Pontecorvo & Arcidiacono, 2010). Yi's family dinner conversation shows Yi's language play and practices. In the next section, the first 3 excerpts involved in Yi's family dinner-table conversation are analysed and discussed using cultural-historical concepts. The sentences within the symbol < > display the English translation of the original Chinese words. The excerpts show a parent-child's conversation at their dinnertime, which is presented through their situated-dialogue. The analysis of the conversation identifies how the parents-child

dinner conversation mediated the child's generalization of everyday concepts and the child's language practice.

7.2.1 Imagination at the family dinner-table conversation.

The video clips were taken by Yi's parents as her parents were embarrassed for the researcher to be there videoing their eating time. At the beginning of the video clip, Yi helped her mother to set up the dinner table and prepare for the dinner. Yi and her father started to eat because her mother was still cooking a Chinese salad. Yi and her father began with their dinner dish and later transferred to the following topic.

<Excerpt 1>

After Yi had some rice and fish, Yi raised her rabbit and said:

Yi: 兔子要吃饭，兔子要吃饭。<The rabbit needs to have dinner. The rabbit needs to have dinner.>

Mother: 你给兔子吃什么啊？今天妈妈做的汤里有什么可以给兔子吃的？<What do you want to give your rabbit? What kind of food can you give the rabbit to eat in mother's soup?>

Father: 那兔子喜欢吃什么啊？<What does your rabbit eat?>

Yi: 萝卜。< Radish. >

Father: 萝卜。还有呢？<Radish. What else?>

Yi thought, then, said:

Yi: Carrot。

Father: Carrot 也是萝卜啊。<Carrot is a kind of radish.>

Yi: 胡萝卜。<Carrot.>

She said that she thought carrot was different from radish.

It was probable that her father did not understand the English meaning of "carrot".

Yi: 它喜欢吃萝卜。它要爬上桌子了。<She likes radish. She climbed up the table.>

Image 7.1. Yi's imaginary situation 1.

(Yi put her rabbit on the table pretending to eat the soup).

> *Yi: 可是它没有碗啊。我要去拿一个小碗给它。<But, she doesn't have a bowl. I will get a bowl for her.>*
>
> *Mother: 那你拿一个小碗给它。<You go and get a small bowl for her.>*
>
> *Yi: 拿一个小碗，不会弄坏的那种。<I will get a small bowl which will not be easily broken.>*
>
> *She held her green rabbit and got a bowl for it.*
>
> *Father: 好啊。<Okay.>*
>
> *Yi: 给它拿一个绿的。绿配绿。<Give the rabbit a green bowl. Green matches green. Green matches green.>*
>
> *Yi went to get a green bowl for her green rabbit.*
>
> *Mother: 好的。<Okay>*
>
> *Yi put the green bowl next to her rice bowl. Then, she went to get a spoon and chopsticks for her green rabbit.*

Image 7.2. Yi's imaginary situation 2.

(Yi went to get a spoon for her rabbit)

Father: 那他也不需要筷子。他也不用叉子的啊？<She doesn't need to use chopsticks. She also doesn't use the fork.>

Yi: 哦……那他用什么呢？<Oh…What does she use?>

Father: 他用嘴巴的。两个手捧着东西，就吃了啊。<She uses her mouth. Two hands hold the food and eat.>

Yi: 哦。那给他拿一些吃的东西。<Okay. Take some food for her.>

Father: 那他喜欢吃什么？<What does she like to eat?>

Yi pointed to the soup and said:

Yi: 这个。红萝卜。< This one. Carrot.>

Yi's father picked up the carrot and put it into the rabbit's green bowl.

Image 7.3. Yi's imaginary situation 3.

(Yi held the rabbit's hands, pretending that the rabbit was eating the carrot).

Father: 对了。他就是这样吃的。<Yes. She eats just like this.>

Yi: 他是这样吃的。可是它会弄脏的。哦，对了，要把那个手巾挂在这儿。
<She eats like this. But she will be dirty. Oh. Put a towel down for her.>
Yi intended to get a towel for her green rabbit.

…

Mother: 你要吃饭的啊。<You need to eat your own food.>

Father: 等你先吃好了，再给他挂手巾。他再吃。<When you finish your dinner, and then get a towel for her. She will eat.>

Yi continued to help her rabbit eat the carrot.

193

Mother: 吃饭时，要坐下来，好好吃。吃得快。Yi。<Yi, you need to sit down when you eat and enjoy your dinner.>
Then, Yi started to eat her own rice.

7.2.1.1 Imagined play in conversation.

This excerpt shows that Yi's father joined Yi's imaginary situation of play and acted as a peer in Yi's play. Yi initially pretended to feed her green, soft-toy rabbit and have dinner with it. In the school observation, Yi had commented that her favourite toy was the green rabbit, which was a gift from her friend. She ate, slept, and played with it at home. Sometimes, her mother helped her feed him while she was in the childcare center. That is, both parents often joined her imaginary play situations. In this case example, Yi's imagination initiated their conversation, beginning with the rabbit eating, then progressed to its food, and from its food to the way it eats. This gave her father a chance to join her imagined thinking and share the understanding of feeding the rabbit. It allowed her father to engage in her imaginary situation by asking a series of questions about the rabbit's food and the way the rabbit eats its food. Vygotsky (1987b) argues that "The development of imagination is linked to the development of speech, to the development of the child's social interaction with others around him, to the basic forms of the collective social activity of the child's consciousness" (p. 346). The collective imagining between Yi and her father during their dinner conversation supported her exploration of the habits of the rabbit, leading her to learn what and how the rabbit eats. Thus, "play is always a *learning* activity because it requires learning and grasping these rules, seeing that they form a system, elaborating on them, and mastering the possibilities of the form of practice they constitute" (Nicolopoulou, et al., 2010, p.44).

Another important point should be acknowledged. Within their imaginary play, Yi used her private speech to assist herself in her actions. For example, when she was looking for food for her rabbit, she said "The rabbit needs to have dinner. The rabbit needs to have dinner". When she went to get a bowl, she said, "I will get a small bowl which will not be easily broken". When she was looking for a green bowl for her rabbit, she said, "Give the rabbit a green bowl. Green matches green. Green matches green". She spoke to herself, directing and regulating her own actions. On the one hand, her private speech

194

and its relationship to her actions and thinking were transformed within their imagined play. Her private speech accompanied her actions, indicating the guidance of her mental effort in feeding her rabbit (Gredler & Shields, 2008). According to Vygotsky (1987d), the private speech she used supported her understanding of the symbolic meaning, and the progress of the transformation to internal verbal thinking. On the other hand, the role of her father supported the process of transformation. He cooperated with her speech and actions, and supported her development of thinking by asking her questions. As Vygotsky (1998e) argues, speech must be considered as a "means of social intercourse", which starts from "the need for means of communication" (p. 272). The communication with her father cannot be ignored, and was essential in her development of language and speech.

7.2.1.2 Teacher-pupil talk.

The second excerpt shows the role of conversational initiative and responsiveness during the parents-child dinner conversation, and indicates the relationship between Yi and her parents. Her mother acted as a teacher. This echoes Rogoff's (2003) statement, Chinese parenting includes caring, devotion, and support as well as strict discipline and control. Her mother's intervention shows that she instructed Yi on her table manners. For example, when her mother asked her to sit down to eat, her mother said, "Yi, you need to sit down when you eat and enjoy your dinner". The tone she used was like a teacher talking to a child, similar to "teacher-pupil talk" (Burns & Radford, 2008, p.196). In actuality, Yi's mother had been a primary school teacher for 11 years, likely influencing her talking style at home.

Basically, the shared dinner conversation was initiated by Yi's ideas and her parents responded in turn. Furthermore, the position they sat around the square dinner table shows that Yi was central. The child-focused conversation indicates that her parents acknowledged that dinner time was a good time to extend Yi's knowledge and increase her language practice. In the following shared and sustained conversation between Yi and her parents, we see a further example of child-focused dialogue.

7.2.2 Talk within Yi's ZPD.

At this moment, her mother had finished cooking Chinese salad and had joined the others at the dinner table and was participating in their conversation.

<Excerpt 2>

Image 7.4. Yi's family dinner-table conversation.

Yi is drinking her juice. Suddenly she said:

Yi: Orange 配 blue 也会变成 yellow 的。<Orange mixed with blue becomes yellow.>

Mother: 哦！<Oh!>

Yi：你看。<Look!>

Yi shows her parents why she said that. She was drinking orange juice using a blue straw. The juice went through the blue straw, which became yellow.

Father: 对的。你看对的。<Yes. Look, right!>

Mother: Orange 本身就有点像 yellow 似的啊。<Orange looks like yellow.>

Father: 那你老师有没有教你怎么配颜色呢？<Has your teacher taught you how to match colours?>

Yi: 没有。<Not yet.>

Yi went to drawing class each Sunday morning.

Father: 还没有学过啊。<You have not learned it.>

Father: 那爸问你一个，好吧？<Can I ask you a question? >

Yi nodded her head to express "yes".

Father: 如果 dark blue 加上 white，会变成什么颜色？<If dark blue mixes with white, what colour can be produced?>

Yi was interested in mixing colours and colour changes. Her interests offered her father a chance to ask her question about colours. Yi initiated their dinner conversation.

> *Yi: 我忘记了。<I forget.>*
>
> *Mother: 刘老师讲过了。<Teacher Liu has already taught that.>*
>
> *Yi: 忘记了。<I forget.>*
>
> *Father: 你想想看。<You think it over.>*
>
> *Yi: 还是 blue. <It is still blue.>*
>
> *Father: 对啊。那是什么 blue 呢？<Yeah. What kind of blue could it be?>*
>
> *Mother: light blue.*
>
> *Father: 对啊。<Right!>*
>
> *Yi: light blue. 那 orange 配 yellow? <How about orange mixed with yellow?>*
>
> *Father and mother: 那配出来还是 yellow, 只是深浅不一样的 yellow <It must be yellow. Just a different yellow.>*
>
> *Mother: Yi, 你要坐好，快点吃饭。<Yi, you sit still and have your dinner.>*
>
> *Yi is still thinking and did not eat her food.*
>
> *Yi: 那 orange 和 red? 我决定今天要画一个 rainbow. <How about orange mixed with red? I have decided to draw a rainbow today.>*
>
> *…*
>
> *Father:那爸爸问你 rainbow 有几种颜色呢？<Okay. Can I ask you how many colours the rainbow has?>*

Father followed Yi's thinking and asked her another questions about rainbow colours. This shows that Yi led their dinner conversation, which shows that the family was sensitive to Yi's actions and thinking. Through their responsiveness, Yi was given the chance to explore the science concept of colour in Chinese in the everyday context.

> *Yi used her finger and started to point.*
>
> *Yi: 红，黄，绿，蓝，淡蓝，<Red, Yellow, Green, Blue, Light blue…>*

Father: 不是淡蓝。还有什么，最后一个是什么？<It is not light blue. What else? What is the last one?>

Yi: 有两个蓝，两个绿的颜色 <Two blues, two greens.>

Mother： 妈妈告诉过你 rainbow 的颜色都有哪些？ <Mother told you the colors of rainbow before.>

Yi: 红 (Hong)……<Red…>

Mother: 赤 (Chi)……<Red…>

Yi: 赤 (Chi)，橙，黄，绿，青，蓝，紫。。<Red, orange, yellow, green, cyan, blue, purple.>

(Here, Chi（赤）and Hong (红) have the same meaning in Chinese. Both mean "red", but Chi (赤) is not used often. So, Yi was not able to remember this.)

Mother: 对。<Yes.>

Father: 青色和蓝色很像。<Cyan is like blue. They are similar.>

Mother: 吃饭了，darling. 快吃饭了。吃点饭，你喝了那么多的饮料。

<Eating, darling, have your dinner quickly. Have some rice. Don't drink a lot.>

…

7.2.2.1 The known-answer test questions.

This excerpt shows part of the parent-child dinner conversation from mixing colours to rainbow colours. The dinner conversation can be seen as a treasured time for the whole family. In Excerpt 2, Yi's father caught onto a moment where Yi was curious about mixing colours during their dinner conversation. When Yi found an interesting phenomenon, where the orange juice changed colour when it went through the blue straw, she offered a comment about the colors and initiated the optional conversation in discussing colours. It can be noted that Yi is good at observation. Furthermore, her father was responsive to her initiation by asking her a series of questions. Her father asked "if dark blue mixes with white, what color can be produced?" This type of question has also been noted by Rogoff (2003) in the research of middle-class American and Turkish communities, which she has labeled "known-answer test" questions. They are applied to examine the child's knowledge, rather than to obtain information (Rogoff, 2003). On the one hand, Yi may have had a chance to think about the question and

express her ideas and thoughts; on the other hand, the question could have been aimed at achieving her father's desire to teach her about mixing colours as Yi was interested in colours. Finally, Yi figured out the answer and expressed her ideas in Chinese. Yi interacted reciprocally with her father through joint communication in the context of exploring colours (Rogoff, 2003).

7.2.2.2 Parents' instructive support within Yi's ZPD.

Again, Lin mentioned that she would like to draw a rainbow, which led her father to respond and ask her other questions related to colours. Their conversation changed to rainbow colours. Her parents worked together within her ZPD, and followed her thinking, extending their conversation around rainbow colours. Their dinner conversation mostly revolved around Yi's thinking and ideas. Thus, in such a child-focused conversation, Yi's father acted as a conversational peer. When the conversation transferred to rainbow colours, they shared their ideas of rainbow colours. Yi tried to figure out the colours of the rainbow with her fingers, as she could not remember what her mother had taught her. At this moment, Yi's mother reminded her of the first colour of the rainbow in Chinese by saying one word, "Chi…" without giving her the complete answer. From this cue, Yi was able to say the rest of rainbows colours. The collaboration with Yi involved the mother assessing Yi's ZPD and providing Yi an opportunity to recall her memory using Chinese. It also identified Yi's maturing psychological functions, as she could not work out the rainbow colours independently (Chaiklin, 2003).

Here, it is worth mentioning that the seven rainbow colours in Chinese sound like a rhyme; "Chi, Cheng, Huang, Lv, Qing, Lian, Zi". This is the way Chinese children remember the colours. It is a kind of language game at the dinner table. When her mother only mentioned one colour "Chi…", Yi was able to recall the other colours. From this, it can be determined that Yi's mother understood her language developmental level. Her mother tried to activate Yi's memory because she believed Yi was able to answer, and only gave Yi a little hint within her ZPD, letting her figure the rest out. As Vygotsky (1987d) argues in his discussion about the zone of proximal development of a child, "We assist each child through demonstration, leading questions, and by introducing elements of the task's solution" (p. 209). Through the conversation, both

parents waited for Yi's response without giving her an answer directly. They always gave her the chance and time to think and express her own ideas. As a result, Yi was able to learn the meaning of rainbow colours and extend her knowledge of colours.

Another point that can be seen is that Yi's mother acted like a teacher and even the way she spoke to her was like a teacher. This is related to her career as a primary school teacher. She asked her a few times to sit still and eat her rice rather than drinking a lot. After she asked Yi to concentrate on eating, their conversation is shown in the following excerpt.

7.2.3 Language practices within Yi's ZPD.

<Excerpt 3>

Image 7.5. Yi's dinner conversation.

Yi started to play with the straw in the cup.

Mother: 你快点吃啊。等一会儿，爸爸妈妈都吃好了。<Please eat it. After a while, Mum and Dad will finish dinner.>

*Yi: 我在吃。**我比你们才吃得快呢**？<I am eating. I am eating **much** faster than you.>*

[Here, Yi made a grammar mistake in Chinese.]

Yi started to eat again.

Father: 想一想，你刚才说得那一句，想想说得对不对？<Have a think. Just now is it right what you said?>

Yi looked at her father and thought about her father's question.

*Father: 我比你们才吃得快？Wo Bi Ni Men Cai Chi De Kuai <I am eating **much** faster than you.>*

Yi shakes her head to express "No".

Father: 中文不是这样说的。<We don't say it in Chinese like this.>

Mother: 那应该怎么说呢？<What should we say in Chinese?>

Yi: 我比你们吃得快 Wo Bi Ni Men Chi De Kuai。<I am eating faster than you.>

Mother and Father: 对的。<Right.>

*Father: 当中是不可以加一个才字的。而是我比你们吃得快。我比你们才吃得快，听上去怪怪的。<We cannot add the word "Cai" in the sentence. It should be "Wo Bi Ni Men Chi De Kuai". "Wo Bi Ni Men **Cai** Chi De Kuai" sounds weird.>*

Excerpt 3 demonstrates that the dinner conversation had been transferred from eating behaviour to language use. It can be observed that her parents engaged in the kind of child-focused conversation that appears to be a *lesson in language use*. Yi was socialized to a particular type of language game at the dinner-table in her family context (Pontecorvo & Arcidiacono, 2010). It involved correcting Yi's Chinese grammar mistakes. What she said is "I am eating. I am eating much faster than you (mother/father)", which is a grammar mistake in Chinese expression. Her father consciously asked her if what she had said was right. He did not tell her where she was wrong, but asked her to think about the sentence again. This shows a family pedagogical strategy her father used, in which Yi needed to solve language problems by herself. In this example, the father only supported and worked on the potential development in the child (Vygotsky, 1987d). Finally, Yi managed to understand her father's question and say "I am eating faster than you" correctly in Chinese. The dinner conversation was an important space and time for her language practice.

Yi's family conversation at the dinner table shows her parents' family pedagogy in response to Yi's interests and actions. In particular, their way of asking their child questions shows Yi's parents' instructive strategies, which makes their dinner conversation meaningful for Yi's language and cognitive development. We now turn to another family's practice – Lin's baking at home with her mother.

7.3 Lin as a Cake Baker

This household activity occurred in my second visit to Lin's house on a hot Thursday afternoon. According to her mother, normally it would be time to go to the park. She decided to bake a cake with her children at home because of the hot weather. First of all, her mother prepared to bake a cake. And Lin was asked to wash her hands, put on her apron and get ready for baking.

7.3.1 Instructional-talk.

<Excerpt 4 - Before baking>

Mother: 我们要做什么 cake 呢？<What kind of cake are we going to bake?>

Lin: 妈妈我们的 cinnamon 呢？ <Mum, where is our cinnamon?>

Mother: 肉桂。你会不会讲肉桂？ Cinnamon？< "Rou Gui "(Chinese). Do you know how to say "Rou Gui"? Cinnamon?>

Lin: 肉桂 Rou Gui . <Cinnamon>

Mother: 肉桂 Rou Gui. <Cinnamon>

Image 7.6. Meimei observing their baking activity.

Researcher: 妹妹？妹妹要不要一起做呢？<What about Meimei (Lin's younger sister)? Do you want to join Lin?>

Mother: 妹妹要不要一起做？<Does Meimei want to join us?>

Meimei stood on the floor and watched them.

Mother let Meimei sit in her own high chair and served her a snack and water.

M: 妹妹要坐这里，看着姐姐做（蛋糕）。<Meimei can sit here (Meimei's high chair) and watch Lin's cooking.>

The baking activity allowed for mother-child conversation focusing on the baking content. Lin's mother acted like a school teacher and consciously taught her how to say "Cinnamon" in Chinese like a teacher in a class. At interview, Lin's mother had also mentioned the importance of correction. She normally corrected Lin's Chinese pronunciation and consciously taught her Chinese words when she used English words instead during conversation. Burns and Radford (2008) argue that the teacher-pupil talk is "characterized by international patterns such as tuitional modeling, exposed correction and initiation-response-evaluation" (p.196). This kind of instructional-talk directly affected Lin's output and encouraged the production of words such as "cinnamon". Being able to categorise and recognise things simply by naming them is not an innate psychological process that can develop independently from language; on the contrary, it can only occur through human interaction, whereby internal processes are initially expressed externally in verbal communication (Jones, 2008).

In the following excerpts, we see that corrections by Lin's mother naturally occurred in the communicative baking activity and supported Lin's creation of a new meaningful utterance. Vygotsky would argue that the social interaction provided Lin the foundation for the transformation of her English to Chinese (Minick, 1987). This confirms the mother's belief that cooking with children is a good way to support their Mandarin communication and language development.

In the observation data that follow, it is possible to see how Lin's mother consciously requested Lin to speak Chinese most of time at home and tried to encourage her to learn Chinese words at home, which is different from Yi's parents. Excerpt 4 is an example of Lin's family pedagogy for supporting her heritage language development, in which the family interactions regularly featured everyday experiences and where Chinese language practice was encouraged. It was not witnessed that Yi's parents reminded her to speak Chinese at the dinner table. Additionally, Yi's parents sometimes responded to Yi's English conversation with English. The difference in the parents' requests confirmed the two families' parents' beliefs on children's language use at home. Yi's parents did not

worry about Yi's Chinese and they would like to learn English from Yi. However, Lin's parents had to request that she speak Chinese at home because her English was obviously better than her Chinese. Lin's mother did so by building on Lin's linguistic attempts within her zone of proximal language development (Burns & Radford, 2008; Radford, Ireson, & Mahon, 2006).

Meimei was also a part of their activity, although she did not participate in it directly. She was helped by her mother to sit on her high chair next to the bench. She listened and observed her sister's baking from a position where she was not completely on the outside. It was an opportunity for her to make sense of baking, and to make progress around the border of her ZPD (Kravtsova, 2009).

7.3.2 Language development in the baking experience.

In Excerpt 5, a particular interactional pattern has been shown. Red words indicate new Chinese words/concepts for Lin. The mother raised her voice when she asked Lin questions. The intonation rises should be noticed. The mother asked her only yes/no questions, did not wait for Lin's response and immediately continued with the next steps in the cake preparation. This is the way to read Lin's baking experience with her mother.

<Excerpt 5: During the baking>

Lin's mother brought out a box of cake mix and let Lin have a look at what was needed to prepare for cooking. Lin's mother looked at the instructions together with Lin and explained the instructions to her.

> *Mother: 两个鸡蛋、油和什么？ 和牛奶。对不对?*
> *<Two eggs, oil, and what? And milk, is that right? (Intonation rises)>*
> *Lin nodded her head to express her agreement.*
> *...*

She raised her voice and it seemed that she wanted Lin to pay attention. It is important to notice that the type of questions she asked Lin were yes/no closed questions. She did not offer Lin thinking space, so Lin automatically replied "yes".

Image 7.7. Lin – stirring in the flour with her mother.

Lin's mother poured some flour and two eggs into a big mixing bowl.

She showed Lin how to stir the eggs and flour together.

Mother: 你用这个大的勺子。<You can use this big wooden spoon to stir it>.

*Mother: 搅，搅，搅。轻轻的搅。不要太用力哦。<**Stir, stir and stir**. Gently, don't need to do it too hard.>*

Lin was stirring. She imitated what her mother did.

Lin: 我们在弄 cake. <We are baking a cake>.

Mother: 那是鸡蛋糕。<It is Ji Dan Gao (Egg Cake in Chinese)>.

Lin: 鸡蛋糕。<Egg Cake>

Mother: 鸡蛋糕，就对了。<Egg Cake. That is right.>

...

Her mother consciously paid close attention to her English expressions. She encouraged Lin to learn the Chinese word for "cake", and Lin was able to understand the meaning of "cake" in Chinese. This is why Lin's parents believed that engaging with their children in activities is an important platform to support their children's Chinese speaking skills.

*Mother: 牛奶，我们还要加牛奶对不对？<Milk. We need to **add** some milk as well. Is that right? >*

Lin's mother opened the milk box. Then her mother used a cup to measure the milk.

Mother: 我们要加多少呢？加入 165 的牛奶。<How much milk do we need to put in? Add 165ml Milk?> Lin was watching what her mother was doing.

Mother: 好的。再搅，再搅。对 <Good. Stir again and again>

Lin：搅，搅，搅。<Stir, stir, stir> She stirred the milk and flour continually.

Mother: 对，对, 对。轻轻的搅。<Right, right, right. Do it gently.>

Mother: 有没有好啊。你要这样的。你要把这个旁边的弄下来哦，你没有弄下来的话，就没有搅到哦。<Have you finished stirring? You need to stir from the border, being careful of places that haven't been stirred. >

Lin : 我会，我会搅<I can stir it. I can stir it. >

...

Lin's mother asked her yes/no questions again, not expecting Lin to answer. Although she asked "how much milk do we need to add?", she gave the right answer directly. She did not give Lin enough time to think about the question.

Mother: 我们还需要油，油，油。对不对？ <We need some oil. Oil. Oil. Is that right?>

Lin: 油在哪里，妈妈？ <Where is the oil, Mum?>

Mother: 油在这里哦，妈妈在找呢。<Here is the oil. Mum found it.>

Her mother put a few drops of oil in. Then, she started to stir with Lin and put her hand on the big spoon as well.

...

Lin's mother saw that she had forgotten to stir the egg in.

Lin: 妈妈，我会。。我会打鸡蛋。<Mum, I can stir in the egg>.

Mother: 你会吗？ <Can you do it?>

Lin: 会。<Yes.>

Lin was very interested in the baking process. According to her mother, it was not their first time to bake an egg cake. It could be seen that Lin was very confident with stirring in the egg and mixing the flour.

Image 7.8. Lin – pouring the mixture.

*Mother: 好啦。你搅好了。我们现在把它倒下来了<And now, we need to **pour** the flour mixture into the cake tin.*

Mother poured the mixture into the cake tin. >

Lin: 妈妈 <Mum>。

Mother: 怎么样？ <What?>

Lin: 我想帮你。<I want to help you.>

Mother: 帮我怎么样？ <Help me do what?>

Lin: 这样子。<Help you to do it like you. > [Lin meant pouring the mixture into the cake tin.]

Mother: 好，那你把它弄到下面。 就像妈妈这样. <Okay, pour the mixture into the tin, just like Mum.>

...

With her mother's support, Lin poured the mixture into the cake tin. This shows that Lin was very interested in baking and wanted to put effort into it. In other words, Lin believed that she could do it successfully.

Image 7.9. Lin – making a butterfly cookie.

Mother: 这个我们要怎么弄呢？<How can we cook this one?>

Lin : 妈妈，我想弄那个蝴蝶的。<Mum, I want to bake a butterfly cookie.>

Mother: 蝴蝶的那个？ <Butterfly cookie?>

Lin: 嗯。<Yes.>

Lin's mother brought out the pastry. Then, she put some sugar on the bench.

Lin looked at the pastry.

Lin: 有个 broken 了。<It is broken.>

Mother: 那是破掉了。是不是？<It is broken, isn't it?>

Lin nodded her head to express "yes".

Lin's mother and Lin put sugar on the pastry.

...

7.3.2.1 Lin's development during the baking activity.

The baking process shows Lin's interest in baking and cooking. In the first interview, Lin's parents mentioned that Lin enjoyed cooking with her mother. This was echoed in her play experience with her father at the park which has been discussed in Chapter 6. With her mother's support, Lin was able to explore the cultural knowledge about the baking process. According to Hedegaard (2007), children's activities in institutional practice supports their personal concept development. The baking concept as collective knowledge was introduced to Lin through her engagement in the practice at home. Through such an experience, the collective knowledge of baking was transformed into

her own personal concepts. During the baking activity, Lin imitated her mother's actions and used simple Chinese words to communicate with her mother. Within the process, Lin not only practised her Chinese, but more importantly, she could understand the meaning of the baking process and the meaning of the words she imitated, because the words were embedded within a meaningful everyday practice – cooking.

Lin explored the baking steps with her own hands. The baking steps included a series of actions such as mixing flour, eggs and milk, stirring, adding oil, pouring and placing the mixture into the oven. Her mother modeled how to stir the flour, pour the mixture into the cake tin and place it into the oven. Lin reproduced her mother's actions and imitated her mother's words. For example, Lin learned a series of words from her mother during the baking process such as "stir", "add" and "pour". Again, her mother consciously instructed her in Chinese words for which Lin used English initially, such as "egg cake" and "broken". As a result, Lin's baking experience with her mother supported her Chinese language development. As Vygotsky (1997a) argues, "The development of speech presents a history of the formation of one of the most important functions of cultural behavior of the child which lies at the base of his [sic] accumulating cultural experience" (p.121). Lin's baking experience with her mother mediated her language development, as her imitation of words such as "stir" regulated her behavior while baking. The actions Lin consequently performed, mediated her understanding of the Chinese words. This conforms with the argument of Zinchenko (2007), that "the word, the action, and the image are mutually reflected, entailed, and mediated, and they essentially develop and construct each other" (p. 239). Lin used her speech not only for communicating to her mother, but also for communicating to herself, which is called "private speech" by Vygotsky (1987d) (See Chapter 3). Lin's private speech such as "we are baking a cake" or "stir, stir, stir" accompanied her baking actions and later controlled her behavior, which can be considered as a sign of the progress of her cognitive development (Bodrova & Leong, 2003). Consequently, the baking practice at home with her mother led to her increased knowledge of baking and enhanced language use.

7.3.2.2 Yes/No questions.

Overall, Lin's mother acted like a teacher rather than a baking partner and kept asking Lin closed-ended yes/no questions, which worked to confirm what she said or invite Lin's participation in the ongoing baking activity. For instance, her mother asked "we need to add some milk, is that right?"; and, when Lin said that the pastry was broken in English, her mother used directive language to say "it is broken, is that right?". Lin mechanically responded to the question by nodding her head to express her agreement or simply replying "yes", reiterating the question. It was evident that this kind of question offered Lin little opportunity to think and express her ideas. In this way, she engaged only passively in the baking activity and acted as a passive partner, although she enjoyed cooking and baking.

Furthermore, as mentioned previously, this was not her first time to bake a cake with her mother at home. It was possible for Lin's mother to prod Lin's memory and support her thinking as Lin had previous baking experience. When Lin's mother asked her "how can we cook this one?", Lin responded that she wanted to bake a butterfly cookie. This echoed what her mother had said; they had baked a butterfly cookie before. Lin was able to remember what she had cooked before and answer the open-ended question. Further open-ended questions would have supported her development of thinking and language. For instance, Lin's mother could have asked her "Can you remember what we cooked last time? What kind of the materials did we use?", which might stimulate her memory. Lin's mother's instructions may orient her development in the future. However, Lin's mother could not instruct her within her zone of proximal development. The yes-or-no questions Lin's mother asked did not provide a productive function in Lin's development.

Vygotsky (1987d) argues for the major role of instruction in development;

> The potentials for instruction are determined by the zone of proximal development... Instruction is only useful when it moves ahead of development. When it does, it impels or wakens a whole series of functions that are in a stage of maturation lying in the zone of proximal development (p. 211-212).

During the baking activity, Lin's mother could not orient her work in Lin's zone of proximal development. Thus, Lin did not attain enough productive support towards her effective development. Comparatively, Yi's parents asked Yi open-ended questions during their dinner conversation (see Excerpt 2), which supported Yi to think of and express her own ideas. Thus, adults' instruction clearly makes a difference in children's development; in this case asking different kinds of questions to support the production of meaning was a productive strategy. Moreover, a most important point is that "instruction is maximally productive only when it occurs at a certain point in the zone of proximal development" (Vygotsky, 1987a, p.212).

7.3.3 Numeracy.

In this next excerpt, we examine the father-child interaction at the end of baking sequence, when Lin's father came back from his university. He engaged in their cooking activity by communicating with Lin.

<Excerpt 6: After the baking>

Image 7.10. Lin-counting the cookies.

It was time to take the cookies out of the oven. They were very hot and they could not be eaten right away. Lin was eating an apple. While they were waiting, Lin's father asked:

Father: 你算算看，这里有几个？ <Can you count how many cookies are on the plate?>

Lin counted the cookies one by one on the plate by using her pointer finger.

Lin: 要数的吗？1，2，3，4，5，6，7，8，9. <Do I need to count them? One, two, three.... nine>

Father: 九个啊。如果妹妹吃了一个，那还剩几个？ <If Meimei has one cookie, how many cookies will be left?>

Lin: 她...这一个。<She will eat this one. >

She started counting again.

Lin: 1,2,3,4,5,6,7,8. <Eight.>

Lin was very happy to tell her father that there would be 8 cookies. It seemed that she liked counting numbers. Lin's father asked a question which was more difficult than the one before. Her father introduced the concept of counting to her through a series of questions, which developed her thinking.

Father: 还剩 8 个了。那我们现在有几个人？ <Ok. Eight cookies left. How many people are in this room?>

Mother: 算算看，我们现在有几个人哦。一个人吃一个还是两个？ <Count how many people are here. Can one person have one or two cookies?>

Father: 你刚刚算过了，一共有九个饼干。对不对？ （Lin nodded her head to say 'yes'。）那我们现在有几个人呢？ <You have counted the cookies just now. There are 9 cookies, right? How many people do we have here now?>

Lin started to count.

Lin: 1，2，3，4，5，6. 6 个人 . <Six people. >

She pointed one by one and counted.

Father: 6 个人啊，6 个人，一个人可以吃几个？

< Six people. How many cookies can each person eat?> [Her father was happy with her counting.]

Mother: 算错了，不能吃哦。好，你快算。< Okay. You won't eat it if you calculate it wrongly. Okay. Quickly count it.>

[Lin counted the number of the people again as her mother pushed her.]

Lin: 1,2,3,4,5,6. <One, two, three… six.>

Father: 哦，那是六个人，可是这里有九个饼干。那一个人可以吃几个？你要不要分看看？ <Ok. Six people. But we only have nine cookies. Then, how many cookies can each one eat? What about distributing the cookies to each person and see what happens?>

[Lin was thinking and looking at her parents.]

Lin: 要分个人一个<We need to give one to each person. >

Father: 九个分给六个人，一个人可以吃几个？< Nine cookies to six people, how many cookies can each one eat?>

Mother: 我可以吃三个，你只有零个。<I can eat three and you would only have zero>.

Father: 这样好吗？<Is it ok?>

Lin shook her head to express no.

Mother: 可是，那要怎么分呢？<But, how can we distribute these cookies?>

Lin : 你要分一个给一个人。<You need to distribute one to each person. >

Mother: 给谁？<Who will you give it to? >

Lin : *给一个人。<Give to each person.>*

Mother: 一人一个。<Oh. One for each. >

Lin: 是。<Yes.>

...

It needs to be clear that what she said is "You need to distribute one to each person" which is the wrong grammar use in Chinese. Lin's mother understood what she had really meant by "give it to each person" in Chinese and consciously corrected her grammar mistake. This shows that the communication between Lin and her parents in daily household activities allowed her parents to pay attention to her expression in Chinese and Lin also got a chance to practise her Chinese language in use.

Father: 哦，你看一个人一个，那还剩几个呢？你看这里有九个，我们有六个人。<Okay. How many cookies are left if each person gets one? Here we only have six people.>

Father: 九个饼干分给六个人，还剩几个？

<We have nine cookies and six people. If we distribute them to each person, how many cookies are left?>

Lin looked at her sister. It was too hard a task for her.

Father: 姐姐，看一下，这里有九个分给六个人，还剩几个？<Jiejie, have a look. If nine cookies are distributed to six people, how many cookies will be left?>

Lin was thinking. It seems that she could not figure it out.

Mother: 糟糕，她算不出来了。好吧，我们都吃掉，她就知道了。

<Okay. She can't figure it out. Each person eats one now. She will know.>

Father pointed to each cookie and said: 这个是给妹妹的。 这是给第一个人的，给第二个人，给第三个人的, 给第四个人的，给第五个人的，给第六个人的，那这三个是不是剩下来了。<This is for the first person. That is for the second person, then the third person.... Ok. Three left.>

Lin: 你们三个可以吃那个（剩下三个）吗？<Can you eat those three?>

...

Here, "You" means her mother, father and the researcher. Lin did not understand her father's question and did not understand why nine people could not eat up all the cookies. Furthermore, her father's question was not very clear here. He did not emphasise the condition of the question in that each person could only have one cookie. So, Lin was wondering whether they could eat the leftover cookies.

Father: 不是，我们有六个人吗？六个人吃了这些，一个人一个。还有剩三个。算这个有没有很好玩？No. Six people here eat six cookies. One of each. Then, we have three left. Is that right? Is it funny?

Lin nodded her head.

...

7.3.3.1 Psychological tool.

Excerpt 6 shows Lin's father consciously intended to teach Lin about counting and numeracy in the baking activity. It can be seen that it was not an easy task for Lin who was only 4 and a half years old. However, she finally understood the concept of the

214

distribution and the counting process. The activity should be considered as a successful experience for her parents and Lin. Later, Lin's father commented that he would like her to think about counting things around her.

In this counting activity, Lin collaborated with her parents and finally understood the new concept of counting. Both parents mediated the enhancement of her mathematics knowledge through the baking activity. As Davydov (2008c) stated,

> Initially, the individual (in particular, and especially, the child) is included in immediate social activity…this activity having an external, unfolded expression and being realized using various material and semiotic tools. Assimilating the methods or performing this activity, especially the methods for using tools that enable one to direct one's own behavior, forms interpsychical processes in the individual (p.41).

On the one hand, Lin engaged in a baking activity with her parents in a collective form. On the other hand, the method of counting cookies as a semiotic tool mediated her individual psychological processes and regulated Lin's counting behaviour and mathematical thinking, which formed an interpsychological process in her as an individual (Lin). Leontiev's (1981) concept of appropriation further explains Lin's counting experience with her father in the baking activity. In Lin's case, under her parents' support, the counting activity emerged and was formed in Lin; subsequently, Lin used this counting activity as the basis for appropriating or reproducing counting and mathematical ability (Davydov, 2008c). Thus, the process of individual appropriation led Lin to reproduce the counting activity in a collective form. This excerpt shows how counting as a psychological tool was acquired/appropriated by Lin through the conscious organization by Lin's parents of an interactive procedure.

7.3.3.2 Parents' support within Lin's ZPD.

Lin was able to use her pointer finger to count the number of people in the room and cookies in the oven plate. Based on her counting developmental level, her father gave her another more difficult task, which was to count how many cookies each person could

have if six people ate nine cookies. It seemed that Lin could not answer her father's questions. Her mother responded that "I can eat three and you would only have zero". She used an incorrect answer to support Lin's thinking. Lin disagreed with her mother, saying "You need to distribute one to each person". The way she expressed it was grammatically wrong in Chinese, but her answer was right. Kravtsova (2009) points out that

> The child needs help from another angle ... where the zone of proximal development is assigned, the adult occupies a position that is earlier in the genesis… Now we need another adult who will be with the child and sometimes even demonstrate incorrect actions so that the child can independently identify and 'discover' for himself [sic] how to solve the assigned problem (p.23).

When Lin's counting task became harder, Lin was not able to figure it out by herself. She needed support from her parents, which reveals the extent of her ZPD in this task. Both parents worked together within Lin's ZPD. Her mother performed the role of Kravtsova's second adult, by demonstrating an incorrect answer taking the "under" position. Her father took an "above" position (See Chapters 3 & 6) to support Lin's thinking during their communication. As a result, with her father and mother's assistance, Lin was able to figure out the answer. The pedagogical strategies both parents applied supported the "transformation of assisted performance into independent performance" (Vialle, Lysaght, & Verenikina, 2005, p.63).

Furthermore, in the task language worked as a psychological tool that mediated her learning and development in mathematics. Through the conversation, Lin internalized the concept of counting and the way to express "one of each" in Chinese. Her mother naturally corrected her expression. Lin enhanced her Chinese utterances through the social interaction with her parents during the ongoing activity. The parents-Lin dyad engaged in a joint counting task, where they shared mathematical knowledge. As a result, Lin not only acquired the cultural psychological tool – the concept of counting – but also her Chinese expression improved because of the guidance from her parents. So, it can be seen that when "the child acquires words, he [sic] acquires them in an external way"

(Vygotsky, 1997a, p.129). What is also important here is that language goes together with concept formation in mathematics like a partnership or co-development. Under her parents' assistance, Lin's language practice gave meaning to her concept development in mathematics, and in turn, her scientific thinking (counting process) served as practice in language development in the discourse of mathematics.

7.4 Wen as a Gardener

Wen was gardening with his father, brother and younger sister together in the front yard when I arrived at their house. This was my third visit to Wen's house. Wen and his brother brought out a big pair of garden shears and intended to cut the grass. But, his father asked them to find a spade to chop the weeds growing in the cracks between the stones.

Image7. 11. Wen's family- gardening.

When Wen brought a spade from his cubby house, his father came to him and showed him how to use the spade. In the following excerpt, we see another example of father-child interaction in an everyday context.

7.4.1 Competition is another style of interaction.

<Excerpt 7>

Wen's father taught him how to use a small spade to remove the weeds. Their communication is mainly in Mandarin. His father started first and showed him how to do

it. After that, Wen imitated what his father had done. Finally, Wen could use the spade to cut off the grass between the concrete stones.

Image 7.12. Wen's father guided him in chopping the weeds.

Each time Wen's father gave him any directions in Chinese he spoke twice to Wen, following the actions. For example:

你到这边来，你到这边来。*<You come over here. You come over here.>*

你把它弄得深一点，深一点 *<You can do it deeply. You can do it deeply.>*

你看看我做，你不要弄这个了。不要弄这个了。*<You look at me. You don't need to do this. You don't need to do this.>*

你向后退，向后退。*<You move backwards. You move backwards.>*

你看看爸爸做的，你再来一下。你再来一个。*<You look at what Daddy is doing. You do it again. You do it again.>*

对了。对了。*<That is right. That is right.>*

你要当心手哦！当心手！*<Be careful of your hands. Be careful of your hands.>*

转过身来，转过身来。*<Turn around. Turn around.>*

It was observed that Wen could respond to his father's directions through his actions. He did not talk a lot, but listened to his father's Chinese words. Compared to Yi and Lin, Wen's Chinese language was at a basic level. Although he was able to understand his father and follow his father's directions, he did not reply with many words when his father talked to him. This shows his developmental level beyond the borders of his Zone of Proximal Chinese language Development and in the position of the "greater we"

(Kravtsova, 2009, See Chapter 3). His father understood his Chinese ability, thus consciously spoke to him in Chinese and applied the repeated word strategy in communication to help him make sense of Chinese for the gardening activity and gardening actions, as well as encouraging him to experience Chinese. This echoes Wen's father's belief that the gardening activity is very important in supporting their children's Chinese development at home. According to cultural-historical activity theory, "the language must be used at the level of operation as a tool for realizing specific concrete activities" (Lantolf, 2003, p.367). In other words, Wen and his father's communication can be seen as a tool to support their collective gardening activity. Meanwhile, the language in use has been acquired and practised in realizing concrete gardening actions.

Later, his father tried to encourage him to continue cutting the grass. He used the competitive strategy after Wen had acquired the skill of cutting the grass.

Image 7.13. Wen – gardening with his father.

Father: 你弄那一边。你弄那边，我弄这边，看看谁弄得快！ <You do the other side, I will clean this side. Let us see who does it faster.>

Then they started the competition.

Father: 咱们比赛。<Let us play a game.>

Wen：Who is going to win?

Father: 让你赢。好吧，要不要你赢？<I'll let you win. Okay. Do you want to win the game?>

Wen: 我爱赢。<I like to win.>

219

[Wen tried to cut the grass very quickly.]

Father: 你要赢的话，你要给爸爸冰淇淋哦。<If you win, you need to give Daddy ice cream.>

Wen smiled.

Wen: 没有冰淇淋。<No ice cream.>

...

They continued their work.

Father: 声音好响哦。<Too noisy.>

The sound was very loud when the spade hit the ground

Wen: I will go and get something.

Father: 上哪儿去啊？<Where will you go?>

Wen stopped to find the earmuffs。

Father: 声音很响，有噪音。<It is too loud. Noisy.>

Father: 你怎么知道爸爸的东西放在哪里？哎呀，爸爸说话，你听不到了。<How did you know where my stuff is? Now, you cannot hear what I say. >

Wen：I can hear.

On the one hand, this excerpt indicates that Wen's Chinese language ability remained at the basic level. He could communicate with his father only in very simple Chinese words and used English most of time. On the other hand, it shows how his father and Wen performed the gardening activity through language and actions. The communicative style should be focused on here. His father encouraged him to cut the grass by using the strategy of competition. His father set up a competitive situation by asking Wen to compete with him see who could complete the task faster. Wen also expressed that he liked to win. As observed, Wen cut the grass quickly. The competition can be considered as another kind of interaction, rather than just proving one's achievement and another's loss (Rogoff, 2003). This has been noticed by Rogoff (2003) in her research. She argues that "some forms of competition may fit with a social orientation rather than with individual distinction" (p. 232). In Wen's case, the competition here socially supported Wen's engagement in gardening and

220

communication in the activity. The competition could have been applied based on his father's understanding that Wen loved to engage in competition with him and his brother.

Competition occurred during the first interview with Wen's family as well. The conversation moved on to his reading. His mother asked him to point out some Chinese words he had learned at Chinese school.

Image 7.14. Wen – reading.

Mother: 你能告诉阿姨这是什么字吗？<Can you tell Aunty what these words are?>

Researcher: 这些是什么字啊？<What are those words? >

Wen was thinking.

Father: 爸爸知道。快点，你不说，爸爸就说喽！和爸爸抢？<Do you want to say it? Otherwise, I will say it. Let us race to be the first to answer the question.>

[Wen's father raised his hand, which showed the competition had started.]

[Wen was busy in collecting photos his younger sister had messed up.]

Father: 是你说，还是爸爸说？<Will you say it or will I say it?>

[Wen smiled, looked at his Chinese textbook and thought about the word that was pointed to.]

Mother: 你画的是谁啊？<Who did you draw in the book?>

Wen: 老 (Lao)....师 （Shi） <Teacher>.

Father: 老师 (Lao Shi) 。<Teacher>.

This short dialogue shows that his mother used his drawing of the teacher to support him in recalling new Chinese words. The drawing of the teacher as an artifact mediated his learning and understanding of the meaning of "the teacher" in Chinese. Applying the external sign – the drawing of the teacher – played an important role in the understanding of the word and internal mediated operations (Vygotsky, 1999a). Thus, Wen was able to go beyond the external phase, which was recognizing the picture, and make the transition to the internal signs process, which was recalling the Chinese words "Lao Shi".

Furthermore, this dialogue shows that his father used a competitive game to encourage him to engage in their communication, as Wen was busy picking up their photos. The competition here attracted Wen to look at the Chinese words. Both parents believed that he could read the words, as his mother had taught him before. Thus, competition in social interaction may serve to motivate children to engage in ongoing events on which they otherwise might not be concentrating.

7.5 Chapter Conclusion

This chapter draws upon Vygotsky's cultural-historical theory, and mainly focuses on discussing parents' support in children's everyday household activities. It includes Yi's family dinner conversation, Lin's baking experience with her parents and Wen's gardening activity with his father. Two findings are shown clearly regarding ways of supporting children's heritage language development: the way in which parents ask their children questions in conversation, and the way parents encourage children to become involved in family household activities.

The analysis of data shows that at home parents may encourage children's participation in daily household activities so as to introduce such concepts as counting and language use. In instructional conversation, children may have a chance to think about and practise their language in a way that makes sense of the word meanings. These processes are based on joint social practice, in which the essential relationship with their parents and the links with cultural tools (artefacts) are revealed (Davydov, 2008b). Consequently, their heritage language can be internalized through external verbal communication. This

provides an illustration of Vygotsky's (1998d) contention that "all internal higher functions were of necessity external. However, in the process of development, every external function is internalized and becomes internal" (p.170).

The findings indicate that the way to communicate with children influences children's development. In particular, the ways in which others ask children questions in daily conversation can make a difference to children's development, especially language development. For Vygotsky, "the dialectical relations between *communication* and *generalization* are two sides of the same coin…they form an extremely deep thought, which explains the transformational mystery of the category of the internal or social relationships into the category of intramental or the individual-internal, mental abilities, and processes" (Kravtsov, 2010, p.67). When Yi engaged in the dinner-table conversation with her parents, her parents used *known-answer questions* to encourage Yi's thinking and express her ideas within their ZPD. When Lin could solve the simple counting task, her father *asked* her even harder questions within her ZPD. Through those questions, Lin explored mathematics, internalized the meaning of counting and enhanced her Chinese expression with her parents' assistance. When Wen showed his interest in gardening, his father applied *competition* and *repeated sentence* strategies to support his gardening experience and understanding of the actions through Chinese language communication.

As Vygotsky (1998g) claims, "The area of immature, but maturing process makes up the child's zone of proximal development" (p.202). In other words, when parents or other adults join children's activities it is important to determine the child's maturing process for the particular task. Concerning the child's developmental level, adults may determine what their children are able to imitate (Vygotsky, 1998g). Based on the analysis of the data, being able to ascertain the child's maturing process not only offered the children opportunities to imitate adults' actions and words, but the use of open-ended questions tested whether children could recall previous experiences. In Lin's baking experience, her mother asked yes/no closed questions, which were not sufficient enough to ascertain her maturing process. Her mother did not offer her a chance to think and express her ideas. Lin had already experienced the baking activity with her mother before and in accordance with Lin's performance, it seemed that she believed that she could do it. At

223

this moment, her mother should have given her a chance to positively explore the experience further, by encouraging her to answer more open questions, and testing to what extent Lin was able to join in the baking process with some kind of guidance. Rather, Lin's mother worked within her mature processes and Lin passively engaged in the activity. As a result, Lin did not have a chance to practise her Chinese, and her language practice was thus limited within the activity.

In brief, "knowing the outcome of yesterday's development is a necessary point for making a judgment on development in the present and in the future" (Vygotsky, 1998g, p.200). In Yi's dinner-table conversation, her parents noticed that she was able to recall rainbow colours so her mother simply said the first colour in Chinese, prompting Yi to recall all the other colours of the rainbow. Her mother cooperated with Yi to solve the problem that was beyond her language developmental level. Hence, the practical implication of the concept of ZPD shows that adults' instructions are determined by children's zone of proximal development and dependent on maturing processes.

Apart from the household activities, the shared book reading practices are also considered as a psychological tool to support children's heritage language development. The next chapter focuses on shared book reading and storytelling in the everyday context. It continues discussing parents' support within children's ZPD. With regard to the research questions, it seeks to identify how parents join in with their children's book reading and storytelling to support their children's heritage language development.

Chapter 8

Family Practice – Shared Book Reading

Children, by participating in institutional practice, are expected to appropriate the dominant motives of an institution as leading motives for their own activities. (Hedegaard, 2009, p.77)

8.1 Introduction

The family practices of play activities and household activities have been discussed in Chapters 6 and 7. This chapter focuses on another family practice of shared book reading and children's storytelling and aims to understand parents' contribution to children's storytelling and heritage language practice. Shared book reading is considered an important family household activity to show the parent-child dyad at home. Thus, this chapter specifically discusses children's shared book reading in order to explore family pedagogy in supporting children's language and literacy development.

This chapter pays special attention to the ways parent-child shared book reading supports the children's elaboration of word meanings and enhances their heritage language vocabulary and expression. This chapter unpacks the various dimensions of parent-child shared book readings and ends with a discussion of the effectiveness of parents reading with children, in order to determine the pedagogical strategies parents should use in terms of cultural-historical theory and the data.

The first part of the chapter portrays Yi's parents' engagement in her storytelling of "the three little pigs". The dynamic process of parent-child interaction in the conversation is analysed and discussed. The second part of the chapter discusses Lin's shared reading with her father and her telling of a story using pictures. The pedagogical strategies are revealed and identified. The third part of the chapter focuses on Wen's family's bedtime story. The investigation indicates a pedagogical strategy for reading to children with low level Chinese. In the end, based on the case examples of family reading practices, this

chapter identifies the transformation dynamic of child's language development in storytelling practices.

8.2 Yi's "Story-Retelling" at the Interview

The storytelling activity is an important part of Yi's everyday family practice in accordance with her parents' statement. Four case examples of Yi's shared storytelling were videoed during the field research. This chapter begins with Yi's "story-retelling" practice which occurred in the first interview with Yi's family at their house. The parents-Yi interaction is further discussed in order to identify the strategies the parents applied to support Yi's heritage language development.

8.2.1 Case Example 1: "Three little pigs".

In this first case example, a segment of video interview is analysed. This specific video segment centres on the family practices important to Yi's heritage language development. However, when the conversation moved to storytelling at home, it was mentioned that Yi was read a bedtime story every day. Yi's parents particularly stressed that Yi was not good at asking questions during storytelling or play activities, but she happily corrected mistakes. The following conversation, regarding the story of "The Three Little Pigs" is evidence of this.

Image 8.1. Yi's story-retelling with her parents.

Researcher: 当你讲故事的时候，她会不会问些问题呢？

<Does she like asking questions when you read stories to her? >

Mother: 不大问的。只是偶尔会问一点。但是听故事，她不大问的。但是你讲，她

都知道。你讲错了，她就会纠正你的。

<Not often. She does not ask questions when I read stories to her. But I think she can remember stories. When I read something wrong, she will correct me. >

Researcher: 哦，你会重复讲同样的故事。

< Oh, you are able to read stories to her repeatedly.>

Mother: 是的。她喜欢听的故事，经常让我重复讲。...... 她最喜欢听的 就是三只

小猪。

<Yes. She always asks me to repeatedly read the stories she likes to her. ... She likes "The Three Little Pigs" very much. >

Researcher: Yi，你能告诉我，在故事里三只小猪做什么了？

< Yi, can you tell me what the three little pigs do in the story? >

Yi: 我不知道。*<I don't know. >*

Father: 我知道的。三只小猪都在睡觉。 *<I know. The three little pigs are sleeping. >*

Yi: 不对。三只小猪自己在做一个小房子。*<No. Each of them built a small house. >*

Mother: 哦，那么猪大哥做了一个什么房子？*<What kind of house did the big brother build? >*

Yi: 猪大哥做了一个草房子。*<The big brother built a straw house. >*

Mother: 那么猪老二呢？*<What about the second pig? >*

Yi: 做了一个木头房子。*<He built a stick house. >*

Mother: 哦，那么第三只小猪呢？ 猪小弟呢？*<Oh! What about the third one? The little brother? >*

Yi: 做了一个砖房子。*<He built a brick house. >*

...

With this stimulated recount of the story of "The Three Little Pigs," Yi demonstrated her fluent Chinese. While her father pretended to be confused by the content of the story, he encouraged her to express her knowledge, which was demonstrated through comments such as "No, each of them built a small house" and "The big brother built a straw house". This knowledge was gathered when Yi was read to repeatedly by her mother. This is the family pedagogical strategy applied in storytelling with young children. The next section draws upon cultural-historical theory, paying close attention to the role of her parents in guiding Yi's story-retelling, and identifying the pedagogical strategies used to support her Chinese language practice.

8.2.2 Expansive social interaction within the ZPD.

In Yi's telling of "The Three Little Pigs", when the researcher asked Yi about the story she could not answer the question and said "I don't know". Although it seemed that she was not able to answer this question, her father and mother provided her instructive scaffolding at her ZPD level. As a result, Yi understood the context and told the story to the researcher. As discussed previously, the ZPD can be understood as the range of tasks that are unable to be completed individually, but can be accomplished with the scaffolding of adults or more capable peers. Yi's storytelling level moved from her ZPD to actual development (being able to retell the story) under her parents' instructive scaffolding.

The development of a child, according to Vygotsky, depends on a transformative collaborative interaction between the child and adult, which includes cultural influences and cultural tools (Davydov, 1995). In this practical interaction, Yi's father positioned himself as 'equal' (See Chapter 3) with Yi on the cognitive development level by saying "I know. The three little pigs are sleeping", which encouraged Yi to correct him and retell the story. Alternatively, Yi's mother continued to ask Yi direct questions by positioning herself in the 'under' position with Yi on the cognitive developmental level by pretending she did not know the answer. Yi's parents worked together and created different positions for themselves in relation to Yi's language and memory capability so as to help her change to the zone of actual language development (See Kravtsova, 2009).

When Yi's parents communicated with her, what were the roles her parents took to support her story-retelling?

8.2.3 Parents as mediators.

When the child is engaged in shared activity, the social interaction in the ZPD enables the child to move forward to a higher level of activity in advance of the level of his or her real-life activity. During this transition, more capable peers and adults become human mediators assisting children's performance (Kozulin, 2003). Yi's parents became her mediators for the story of "The Three Little Pigs". In other words, this expansive interaction highlighted the complex mediating role of the parents in structuring situations in which Yi could advance her learning and expand their communication. Through this experience, Yi improved her communication skills by retelling the story gradually in her own words, therefore mastering the skill and moving to a higher intrapsychological level. The shift from the interspychological plane to intrapsychological plane occurred in the ZPD, where Yi and her parents cooperatively engaged in a dialogic process; a process in which Yi was guided by her parents through their choice of communicative style. This complies with Vygotsky's (1998g) observation that one of the most general laws of social development of the child is that "the process of teaching itself is always done in the form of the child's cooperation with adults" (p. 204).

Yi's advancement to the zone of actual development may also be deemed to be influenced by Yi's parents' belief that interactions are the key to language development, as well as by their conviction of the importance of communicating in a mature manner through direct questions and their acknowledgment of Yi's mental capabilities. Furthermore, her parents made conscious choices of which communicative style best supported the extension of Yi's language. The fact that it was a conscious process was revealed in Yi's mother's comment in the interview (prior to the retelling of the story) that Yi enjoyed correcting inaccuracies in stories. Her husband attempted to elicit the story by stating an inaccurate fact and asking false questions, demonstrating their conscious methods to help Yi. Vygotsky (1966) argues that "without a consideration of the child's needs, inclinations, incentives, and motives to act – as research has

229

demonstrated – there will never be any advance from one stage to the next…It seems that every advance from one stage to another is connected with an abrupt change in motives and incentives to act" (p.7). In Yi's storytelling, her parents understood her motivation to correct others, so they were able to offer the appropriate scaffolding to encourage her story-retelling. Consequently, Yi could correct her father's mistakes according to her understanding of "The Three Little Pigs" and practise her Chinese language expression.

In the next section, Lin's storytelling activities are analysed and discussed. Two case examples, Lin's shared book reading with her father and her storytelling by using the pictures, are focused in order to identify how important her father's interactive support was to Lin's storytelling and heritage language development and find out the pedagogical strategies parents may use in the shared book reading.

8.3 Lin's Storytelling and Shared Book Reading with Her Father

As mentioned previously in Chapter 5, Lin liked to read stories with her parents and always read stories to her younger sister (Meimei). Throughout the whole study, five examples of Lin's reading occurred, including a bedtime story, showing that Lin actively engaged in book reading. Only two case examples will be focused on in this section: a shared reading with her father and Lin's own storytelling.

8.3.1 Case Example 2: The shared book reading with her father.

This reading vignette happened in the first visit to videotape Lin's family. After Lin's morning tea, Lin came to the living room, sat on the sofa, and started to read the new story books which she had just received from her parents' friends the night before. As her father explained, she loved to read stories. She selected the English story book and started to read in English. She pointed to the pictures in the book and said the names of the objects in the picture. Her father asked her to read it in Chinese, and asked, "Can you read it in Chinese?", yet she continued reading it in English. Her father asked her again but Lin still kept reading in English. Finally, her father said, "Let us read this storybook. Is that ok?", and Lin stopped what she was doing and began to read the story with her

father. The shared book reading activity was mainly in Chinese. The activity lasted half an hour and was one of five family reading videos which were collected. While they mainly engaged in Chinese language communication during the storytelling, **bolded words** indicate words spoken in English and red words indicate new Chinese words/concepts for Lin. The video vignette consists of four parts of the shared reading of the English story "Farm", including Lin's father's questions and Lin's observations (Part 1), enhancing vocabulary (Part 2), recalling (Part 3) and performing (Part 4). These four parts were chosen in order to focus on the particular style of interaction between Lin and her father. In each part, cultural-historical theoretical concepts are focused on and discussed in relation to the objective data.

<Part1> Lin's father's questions and Lin's observation

Part 1 explains the beginning of Lin and her father's shared book reading. It shows the basic form of their shared reading including their conversation, Lin's father's exploratory talk, and the conflict regarding language use in reading.

Image 8.2. Lin and her father reading "Farm".

Father: 你看这本书，你看到什么？你看这本书你看到什么？<Look, what can you see from this book cover?>

[They started to read the story together in Chinese. The book was in English. But, they read it in Chinese. Also, her sister, Meimei was opening the other book on her own next to Lin.]

Lin looked at the picture on the book cover.

Father: 你能看到什么？<What can you see? …What can you see from this picture?>

231

[Father pointed to the cover page]

Lin: 嗯，猫咪。<Eh, "Miao Mi">.

[Baby cat in Chinese]

Father: 你看到猫咪啊。那你还有看到什么？只有猫咪？<You saw "Mao ME."
Is there only "Mao Me" on the cover? What else can you see?>

[Lin pointed to the picture and looked at it again for a while.]

Father: 很多东西的哦！还有什么？<A lot of things! What else can you see?>

Lin: 嗯，有啊。<En. Yes.>

[She was thinking and continued looking at the picture.]

...

8.3.1.1 Father's "exploratory talk" within Lin's ZPD.

In this part of the shared book reading, Lin's father applied exploratory talk to support Lin's exploration and observation. He asked a series of *what* questions to help Lin think and use her own language to express her ideas. At the beginning of the book reading, Lin showed interest in her new books and tried to read it by herself in English. Her father reminded her to read it in Chinese. On the one hand, this matches her parents' statement in the interview that Lin's parents reminded their daughters to speak Chinese at home; on the other hand, Lin's father responded to Lin's interests in the new book "Farm". Lin's father understood that Lin was not able to read this story book in Chinese by herself after he requested her to read it in Chinese. However, he did not choose to tell her about the new English book by reading the text, but asked her questions instead. Her father believed that Lin was able to answer the questions in Chinese. In other words, he provided scaffolding to her book reading within her ZPD. As Vygotsky (1991) argues, "It is clear that it should be determined to a much greater extent not by what the child knows how to do himself [herself] but by what he [she] knows how to do under guidance…with help according to instruction, or in collaboration" (pp.402-403, cited in Zuckerman, 2007, p. 45). Her father provided her an opportunity to look at the book and answer his questions in Chinese. They read this English book collaboratively in Chinese through exploratory talk. Thus, these adults played an important role during interactions with young children as discussed previously (See Chapter 3). The role of adults is to

provide assistance through exploratory talk and other communicative mediations, rather than simply giving structured prompts (Moll, 1990). Under her father's support, Lin took control of her own learning and explored "Farm" in Chinese.

8.3.1.2 The conflict.

In this segment of the shared reading, a conflict occurred between Lin's motives in reading the English story and her family's motives in Chinese storytelling in the home context. Her father requested her to read the story in Chinese twice, however, Lin did not respond to her father and continued to read the story in English. The difference and conflict between Lin and her father indicated which language was chosen to read the story. Furthermore, when they started to read the English story together, Lin's motives were generated to engage in the shared reading activity with her father. This was activated by her immediate goal of continuing the rewarding reading activity with her father, although reading in Chinese was demanding. Therefore, the conflicts were reinforced continually.

As stated in Hedegaard's (2009) discussion of "dialectic relation" between the development of motives and competence, "children, by participating in institutional practice, are expected to appropriate the dominant motives of an institution as leading motives for their own activities" (p.77). The conflict supported Lin's development of motives for reading an English story in Chinese. When the conflict occurred, Lin's father sat down and started to read this story in Chinese with her. He took the Lin's perspective to deal with the conflict in a positive way, having understood that her interest was to read her new book. Lin met her father's demands regarding reading "Farm" in this shared book reading activity, and in doing so she also appropriated the family motives of reading the story in Chinese. Therefore, her father's interactive reading with Lin supported her development of motives in reading a story in Chinese. Moreover, the resolution of the conflict rested with her father's pedagogical strategy of reading together in Chinese.

<Part 2> Enhancing vocabulary

Part 2 focuses on the enhancement of vocabulary, including Lin's sister's (Meimei) involvement in the reading and the role of the pictures in the book. The theoretical concepts of psychological tools and subject positioning strategy are concentrated on.

Image 8.3. Meimei's involvement in the reading.

Lin: 看，妹妹在闹。<Look, sister is bothering us.>

[Meimei was trying to turn to the next page]

Father: 妹妹看，跟姐姐一起看这个。看这个图。小朋友在做什么？< Meimei, Look at this picture. Okay. Let us look at this picture with your sister. What is the child doing in the picture?>

*Lin: 她在喂那个，那个，那个，**Rooster**. <She is feeding the um, um…**Rooster**.>*

[Gong Ji means Rooster in Chinese.]

Father: 她在喂鸡哦！Rooster 是公鸡。<She is feeding the rooster. Rooster is Gong Ji>

Meimei: 鸡 (Ji)。<Chicken. >

Image 8.4. Meimei pointing at the picture of "chicken".

Her sister, Meimei was looking at the other page. She found the chicken picture as well. She pointed to it and said "Ji (Chicken)" in Chinese. It is worth mentioning that Ji means "Chicken" and Gong ji Means "Rooster" in Chinese. Chicken (Ji) just adds one more word, Gong, to make Rooster (Gong Ji). Thus, her sister, Meimei easily remembered one word, *Ji*, during the shared book reading process between Lin and her father because of the duplication of words in the two terms.

Lin: 嗯。公鸡。*<Eh. Rooster.>*

Father: 她在喂鸡哦。*Rooster* 是公鸡。那你还有看到什么动物吗？除了鸡以外。你还有看到什么时候动物吗？*<She is feeding the chicken. **Rooster** is Gong Ji (Chinese). What other animals can you see? Besides the chicken.>*

Lin: 人。*<Humans.>*

Father: 还有一个动物，你有没有看到？*There is another animal, can you see it?*

Lin: 嗯，小猪。*<A little pig.>*

Father: 哦！小猪。那这个小妹妹穿什么鞋子？*<Oh. A little pig. What kind of shoes does the girl wear?>*

Image 8.5. Lin's father pointing at the picture of the boots.

*Lin : 嗯。**Boots**. <En. **Boots** (English)>*

Father: 她穿着一个蓝色的靴子。有没有？<She wears a pair of blue boots, is that right?>

[Her father pointed out the blue boots to Lin.]

Lin: 靴子. <Boots.>

...

Again, Lin imitated her father's words and looked at the picture. She made a conscious effort to use the Chinese words *Goose* and *Boots*. Their shared book reading enhanced Lin's vocabulary.

Father: 嗯。她在看什么呢？<Yes. What is she looking at?>

*Lin: 她在看那个....那个 **goose**. <She is looking at the "goose (In English)."*

*Father: **Goose** 就是鹅。 <**Goose** (In English) is "e" in Chinese.>*

Lin: 鹅，鹅，鹅。<e, e, e.>

Father: 她走路时有什么动物在跟着她？<What animal is following her when she is walking? >

She imitated "Goose" in Chinese three times. The shared book reading with her father enhanced her vocabulary.

Lin: 那个...鹅。<It is a... "e". >

Father: 有几只鹅？<How many "e"s are following her?>

236

[Lin moved and sat on the edge of the book and started counting the geese.
She looked at the picture and did not point to count.]

Image 8.6. The father supporting Lin's counting task.

Lin: 1，2，3，.... [Lin was guessing.]

Father: 要看着这个图。<You need to look at the picture.>

Image 8.7. Lin counting the geese.

Lin pointed to the geese in the book.

Lin: 1，2，3，4，5. <one, two, three, four, five>

Father: 五只鹅啊。那还有个动物在偷看？<Five e. What animal is spying?>

Lin: 猪。<Pigs. >

...

Lin did not use her finger to count the geese (See Image 8.6). It seemed that it was difficult for her to count the geese just by looking. So, her father suggested that she look at the geese closely and count them. Then, she figured out how many geese there were in the picture (See Image 8.7). It became apparent that the pictures in the book acted as a psychological tool to support her reading, thinking, and learning as discussed below.

8.3.1.3 The picture as a psychological tool.

This part of their shared book reading shows Lin's vocabulary enhancement, which is ascribed to the social interaction between an expert (her father) and a child (Lin) (Vygotsky, 1987d). Basically, Lin played an active role in reading the storybook in Chinese through answering her father's supportive questions. When she could not say words in Chinese, she used English words instead, such as "*rooster, goose, boots*" etc. Her father caught every moment when she spoke English, and clarified how Chinese could be used. Lin could apply the pictures in the book as tools to make her conscious of the meanings of the Chinese words, "Ji, e, Xue zi". For instance, when her father asked her what kind of shoes the girl was wearing; Lin answered "*boots*" in English. Her father did not explain that boots means Xue zi in Chinese. He said "the girl wears a pair of blue boots" in Chinese and pointed to the picture of the boots. His father used the picture of the blue boots to tell her what it meant in Chinese (Xue zi). At that moment, the picture was considered a psychological tool to mediate the conversational interaction between Lin and her father, and support her conscious understanding. Thus, humans use psychological tools such as speech, literacy, images, and code to mediate their interactions with each other and their surroundings (Kozulin, 2003; Moll, 1990). As Vygotsky (1997b) says, "The young child's use of tools can also be explained by his naïve physics, that is, by the fact that to the extent that the child acquires any experience, he is capable of using certain properties of things with which he has to deal and to work out a certain relation to them" (p. 115). In Lin's case, with her father's support Lin could make a connection between external stimuli (the picture of boots) and internal presentation (the boots in Chinese). This is similar to Vygotsky's (1997b) example using pictures of a "horse" and the key "sleigh" in such a way that for a child to remember a picture of horse, he [she] must press the "sleigh" key. The child makes the connection between the picture of a "horse" and the key for the "sleigh", and later remembers the relationship between "horse" and "sleigh" without the picture and the key. In this process, "the operation is converted from a mediated to a direct operation" (p. 117). Lin was able to assimilate the structure of the process from external picture to the internal word meaning, thereby remembering the word "boots" in Chinese without the picture.

Another example shows her father's support for her vocabulary enhancement. When he asked Lin about the "*goose*", Lin was not able to say the word in Chinese. Her father not only gave a simple explanation of "*goose*" in Chinese, but also asked her the further question, "*What animal is following her when she is walking?*". Lin had another chance to look at the picture and imitate the word "e". In other words, he put a particular Chinese word into a particular situation (context) in order to enforce Lin's memory of the Chinese word and achieve conceptual learning. This is how Lin learned new Chinese words. The picture, as a psychological tool, supported her imagining of the action of "the geese are following the girl". When Lin appropriated the image and the action, she actually remembered the words and her thinking became verbalized. "Action, word, and image constantly grow into each other, and interweave and enrich each other, creating the fringes of forms" (Zinchenko, 2007, p.238). Lin assimilated the pictures of geese and blue boots, the imagined actions which were concealed in the picture, and her father's words, and internally formed her own understanding of the new Chinese words.

Image 8.4 shows that Lin's sister, Meimei also pointed to the picture of the chicken. Meimei was partly involved in their shared book reading as discussed in the following section.

8.3.1.4 Vocabulary learning within the shared book reading conversation.

At the beginning of Part 2, Lin's younger sister Meimei also showed interest in Lin and her father's shared book reading. Meimei was still a part of their reading, although she was not engaged in their reading conversation. She was there to try to open the book, listen, and imitate their voices. For instance, Meimei found a "chicken", pointed to the picture of the chicken and said "Ji (Chicken)" in Chinese (See Image 8.4). Meimei also received new information and enhanced her vocabulary beyond her ZPD in book reading. Meimei could recognize and say "chicken" in Chinese due to Lin and her father's shared book reading conversation. This indicates that Meimei gained support from another angle. This resembles Kravtsova's (2009) discussion about instructive pedagogy. The conversation supported Meimei to develop a "greater we" consciousness about book reading and Chinese words.

<Part 3> Recalling

Part 3 is called "recalling" due to Lin's recollections. As her mother commented, Lin always enjoyed making connections between different objects. When they mentioned anything, if it reminded her of something she had, she would bring it out. As an example, part 3 shows her recollections during the shared book reading.

Image 8.8. Lin's jumper and the wool.

> *Her father turned to the next page.*
> *Father: 那这个呢？ <What about this?>*
> *Lin: 有绵羊 <Sheep. >*
> *Father: 三只绵羊 <Three sheep.>*
> *Father: 绵羊的羊毛可以做衣服，很暖和。<The sheep's wool can be made into a coat. It is very warm.>*
> *Lin: 哦。爸爸<Oh. Daddy.> [She went back to her room and picked up her wool jumper.]*
> *Father: 等一下，我们看完再去，好不好。我们看完再去吧。<Wait a moment. When we have finished reading, you can go. Is that ok?>*
> *[Lin came out of her room and took her wool jumper.]*
> *Father: 哦，这是你的毛衣啊。Oh. It is your jumper.*
> *...*

Lin went back to her room and picked up her own jumper when her father mentioned that wool can be made into warm coats. She made a link between the quality of the wool and her warm jumper. Such an experience was internalized and supported her awareness of wool and the jumper.

8.3.1.5 Internalizing and connecting pervious experiences.

When her father mentioned that sheep's wool is very warm, Lin recalled her own jumper. Then she went back to her room and brought it to her father (See Image 8.8). This echoes her mother's comments that when one mentioned something, if she had it, she would find it and bring it to them. In this case, the *wool* her father mentioned reminded her of the warm jumper. On the one hand, it shows that she enjoyed the story and she made a connection between "*wool*" and her own jumper because her father had told her about the function of wool. As a result, she internalized her understanding of her jumper and shaped it to the new meaning of the object (wool). A quantitative study on parent-child reading (Mol, Bus, Jong, & Smeets, 2008) has also reached the similar conclusion that "children internalize previous experiences and generalize those to new situations" (p.21). However, Mol, et al. (2008) do not explore the importance of adults' support. In Lin's case, the process of internalization results in her father's introduction of the new knowledge of sheep's wool. In other words, internalizing a meaningful utterance is a process, whereby

> the very formation of meaning in the material of the physical signals that pass between the child and other… is a result of the process of engaging in human activity mediated by linguistic communication in which psychological processes are "verbalized". (Jones, 2008, p.87)

The shared book reading with the assistance of Lin's father supported her memory development and her understanding of "*wool*". Lin could use her jumper to understand what the function of "*wool*" was and to prove her understanding of "*wool*" and jumper. In other words, Lin could not only understand the word of "wool", but also see the meaning of "*wool*". This is the way Lin interpreted the new object and relationship with the object, in which Lin developed a consciousness of the new object. Consequently, Lin enriched her knowledge of the new Chinese vocabulary.

In the next section, Lin's voice, body movements, and expression of feelings indicate Lin's motive in reading this story with her father. Her active engagement in the shared book reading is discussed.

<Part 4> Active engagement

Image 8.9. Lin's father pointing to the picture of the pigs.

Father: 看这一页，这边呢，这边是什么呢？*<What about the next page? What are they?>*

[Her father pointed to the pigs in the picture.]

Image 8.10. Lin pointing to the picture of the leg of the sheep.

As seen in Image 8.10, when her father asked her about the picture of the pigs, Lin pointed to the pictures of the sheep legs. It seemed that she was interested in the legs of the sheep.

Father: 看这个图啊？*<What about this picture?>* *[He points at the picture of the pigs]*

Lin: 这些小猪在睡觉？*<These pigs are sleeping?>*

Father: 姐姐，你刚刚问这个。一只羊有几只脚啊？*<Lin, just now you asked about the legs. How many legs do the sheep have?>*

Her father caught the moment that Lin pointed to the legs of the sheep. So, he asked Lin about the legs. Shared book reading with her father offered her father an opportunity to understand Lin and follow Lin's interest quickly.

Lin: 1，2。<One. Two.> [She pointed to the picture.]

Father: 一只羊，两只脚吗？那你再看一看。<One sheep, two legs. Can you look again? >

Image 8.11. Lin counting the legs of the sheep.

Her father did not give the answer directly; rather, he waited and asked Lin to check the picture again. Her father believed Lin could figure it out.

Lin: 1，2，3，4. <One, two, three, four.> [She pointed to the picture again.]

Father: 一只羊有四只脚。那狗有几只脚？<Four legs. What about the dogs? How many legs?>

As Lin found the right answer, her father asked her how many legs the dog had. They just finished reading the page about pigs. He tried to help Lin's use of recall from memory.

Image 8.12. Lin's voice and facial expression.

Lin: 哦。*<Eh…>*

Lin said "Eh…" with a questioning face. The way she read the story was like a performance.

Image 8.13. Lin looking for the picture of the dog.

[She turned the book back and looked for the picture of the dog.]

Father: 狗有几只脚 *<how many legs does the dog have?>*

Lin: 那狗的 **picture**? *<Dog's **picture**?> [She found it.]*

Image 8.14. Lin counting the legs of the dog.

244

Father: 几只脚？ how many legs?

Lin: 1，2，3，4. <One, two, three, four.>

...

Image 8.15. Lin proudly clapping her hands.

Image 8.16. Lin thinking of the rabbit.
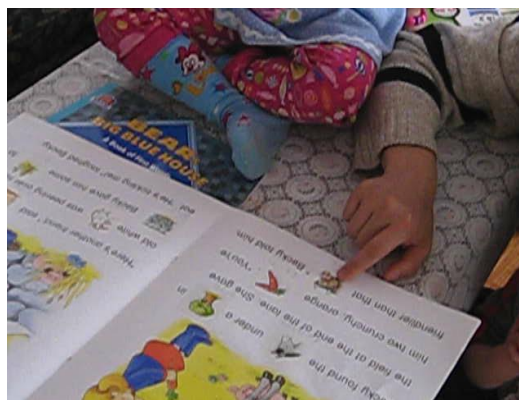
...

Lin: 妹妹？<This girl? > [She pointed at the picture of the girl.]

Father: 是，她在做什么？ <Yes. What is she doing?>

Lin: 她喂那个驴吃胡萝卜。<She is feeding the donkey with carrots.>

Father:吃胡萝卜哦。驴子很喜欢吃胡萝卜哦。<Eating carrot. Does the donkey like eating carrots?>

Lin: 像兔子一样。<It is like rabbit.>

Father: 像兔子一样。还有一些动物也喜欢吃胡萝卜？<Like rabbit. There are some other animals that like eating carrots.>

Lin : 哦。。。<Oh. >

Father: 像牛，也喜欢吃胡萝卜。他们都不喜欢吃肉，还有羊喜欢吃草。<Like this bull, it likes eating the carrot too. They don't like meat. Also the sheep likes eating the grass. [He is pointing at the picture of the bull.]

...

The shared book reading with questions supported Lin's mathematical thinking and self-esteem development. When she got the answer, she clapped her hands. It can be seen that she was very proud of herself and engaged in her reading. This shows her motive development in reading this English story in Chinese. Also, Lin thought of the rabbit who likes carrots, when they talked about the picture of the donkey fed with carrots. She shared her thinking with her father. Her active engagement and performance supported her language use in mathematical and general thinking.

8.3.1.6 The motive.

Part 4 of their shared book reading shows Lin's active engagement with her performance. When her father asked her how many legs the dog had, she said "Eh…" with a questioning inflection. The sound she made shows that the task was interesting for her. She had the confidence to find out the answer. Later, when she figured out the question, she showed her achievement by clapping her hands. Her voice and body movements displayed her motives in reading the English story with her father in Chinese, counting animals and exploring the farm setting. The motives drove her to find the answer and fulfill the task. Davydov (1999) states that "motives…are forms of needs…motives are consistent with actions. Actions are based on motives, and acting is possible if certain material or sign and symbol means are available" (p. 43). In other words, motives are directed to actions in order to achieve goals. Lin's motive to answer her father's question drove her to look for the picture of the dog (certain material). That is, it can be noticed that she actively engaged in the conversation with her father through the storybook. Her father's instruction influenced her orientation to the farm world. As discussed in Chapter 3, adults' mediation supports the development of new motives in children. Her father's questions about the legs of the dog mediated the new demands on her and full participation in looking for the answer. As a result, Lin experienced the practice of

exploring, developed her knowledge of farm animals, and practised her Chinese language in use.

The whole event of their shared book reading shows Lin subjectively engaged in the reading activity with her father. Her initiatives and her father's guided questions show their intersubjectivity in the reading as discussed below.

8.3.1.7 Intersubjectivity in the shared book reading.

In Part 4, it can be seen that Lin still initiated their book reading. The initiative indicates Lin was as subjective as her father in engaging in this collective reading activity. As an example (See Image 8.10), Lin pointed to the picture of the legs of the sheep, when her father suggested looking at the pigs. It seemed that she wanted to know details about the sheep. Later, her father responded to her actions and thinking. In other words, Lin also took responsibility for achieving the shared goal – reading the English story (Farm) in Chinese. In this way, she shared the understanding of "farm" animals with her father and achieved intersubjectivity in the shared book reading.

Furthermore, Lin's father paid close attention to Lin's performance and responses and noticed Lin's action (See Image 8.10). Then, her father asked her the question in Chinese. Lin had a think and answered "two" in Chinese. Obviously, the answer was not correct. Lin's father did not give her the right answer straightaway, rather, he asked her to look closely. Again, this shows Lin's father was accurately aware of Lin's zone of proximal development in the counting task where she was using Chinese, and that he understood that Lin could sort out the answer by herself. Furthermore, her father asked Lin how many legs the dog had after she knew the number of legs the sheep had. They had just completed the reading of "dog". The question was aimed at Lin recalling her memories about dogs. She turned the page back to the dog information and sought the answer. Also, her father introduced further knowledge about which animals like carrots, when Lin mentioned the rabbit is like the donkey who likes carrots. Both of them exchanged the information and supported each other's thinking, thus their reading was a productive process of learning.

What is more, until now, the conversation between Lin's father and Lin permeated the whole process of the reading. Perez-Grannados (2002) concludes that learning language can be implicit. In other words, young children learn language through indirect means such as everyday activities where speakers are motivated to complete tasks or engage in activities. Language development can occur even though the activity may not aim to teach language, as the process of communication and oral interaction within the context may be important to children's language input. Lin's father gave her the opportunity to read it by herself by asking a lot of questions, rather than reading the written words to her. Consequently, Lin enhanced her Chinese vocabulary and developed her knowledge of farms. In addition, Lin initiated her own reading and appropriated her own learning, which taught her how to read a story by herself in a scientific way. The next case of Lin's storytelling is analysed below.

8.3.2 Case Example 3: Lin's storytelling.

Lin had just finished her morning tea in the dining area when I came to their house. I brought her two Chinese story books as a gift. When she saw the storybooks, she started to read them by herself. The story was "The Tortoise and the Hare". She opened the book and read it. Her father was preparing juice for her and her young sister was sitting on a high chair and having her morning tea. They spoke in Mandarin.

Image 8.16. Lin's storytelling.

> *Lin: 一天… <One day… >*
>
> *Researcher: 你在读什么？<What are you reading? >*
>
> *[Lin did not answer the question, and continued looking at the book.]*

Father: 姐姐在问你读什么？ <The sister (Researcher) asked 'what you are reading?'>

Lin: 小白兔和乌龟在跑。<The hare and the tortoise are running.> [Low voice]

Researcher: 哦， 小白兔和乌龟在跑。<Oh. The hare and the tortoise are running.>

Lin: 跑<Running>

Lin: 然后那个兔子跑很快！乌龟很慢慢<The hare is running very fast. The tortoise is running very slowly.>

[She turned the page to the next one.]

Lin: 第一只兔子慢慢地走……他睡在那里，乌龟慢慢地走。<At first the hare…..walked slowly… He is sleeping near the tree. The tortoise is still walking.>

[She looked at the other side of this page].

Father: 大声一点哦，都没有听到，像蚊子一样。 <Please read it aloud because others cannot hear you. Your voice is like a mosquito.>

Lin: 小白兔说他是那……跑很快。<This hare said he could run fast…>

[She raised her voice this time.]

Researcher: 小白兔跑很快。<The hare runs fast…>

Lin: 就拿到个……<Then he got a …. > [She pointed to the flag.]

Researcher: 那个什么？是不是小红旗？<What is that? Is it a flag?>

Lin: 拿到个小红旗。<A little flag.>

…

It can be seen that Lin used her own words to tell the story even though she did not know a lot of Chinese written words. The reason she was able to tell this story was that there were pictures in the book. The pictures mediated her imagination and thinking. The next section discusses this.

8.3.2.1 Pictures as a symbolic mediator.

In Case 3, Lin read the story "the tortoise and the hare" in Chinese by herself. Her understanding of the story made sense to the listener (the researcher), although the sentences she tried to use could have been completed. She was still developing her Chinese. According to her father, it was her first time reading this story. The way she

249

read the story was in terms of her observation of the pictures in the book because she did not know the written Chinese words in the book. So the story she made was different from the book. This is a part of her Chinese language practice at home. She created the story through her understanding of the pictures in the book. The pictures enabled her to think and create her story. Lindqvist (2003) argues that "the human being masters and transforms his or her own inner psychological processes with the help of symbolic tools – signs, symbols, and texts…Humanity is creative" (p. 250). The transformation of pictures provided Lin a problem situation that she needed to deal with so she could create her own story. Thus, here the picture was a symbolic tool that mediated her learning and understanding of the story. Furthermore, how she mastered the way to read the story cannot be ignored. Case 2 of shared book reading with her father could explain it. This is discussed in the next section.

8.3.2.2 Mediations within the ZPD.

Case Example 3 of Lin's storytelling did not happen occasionally, but necessarily when considering Case Example 2 of Lin's shared book reading with her father. According to her father, he usually read stories together with his daughters, especially English stories in Chinese. Lin took responsibility for her reading. In other words, Case Example 2 of shared book reading is not a random occurrence, but part of their everyday practices at home. In Case Example 2, the process of Lin's interaction with her father and pictures in the book showed how she learned about reading and to read the story on her own within her ZPD. As discussed before, the role of her father was to mediate her thinking by asking her a lot of questions in order to support Lin to move to her actual reading development level; the role of the pictures was to symbolically mediate her learning of the knowledge of farms in such a storybook-related activity. This point is clearly demonstrated by Arievitch (2008), who argues "individual development is based on acquiring social ways of dealing with reality and on learning how to carry out activities in a shared social world and in constant dialogue with this world" (p. 54). As a result, Lin made a qualitative change in that she expanded her Chinese vocabulary with words such as "Rooster" "Boots" "Goose", and developed the ability to participate in collaborative storytelling. The most important change is that she mastered the skill of how to read a story, which is shown by Case Example 3. An old Chinese saying

regarding this pedagogical strategy is "If you give a man a fish, he will eat for a day, but if you teach a man to fish, you will feed him for a lifetime". Thus, the collective processes of shared social interactions continue to be effective even when the individual fulfills the task (Arievitch, 2008). In Case 3, Lin reproduced the story of her reading activity through the pictures (tool). This is the result of her learning activity and heritage language application.

8.3.3 Summary of Lin's family reading practice.

All in all, drawing upon cultural-historical concepts, Lin's family reading practices show how her father and Lin engaged in shared book reading and how her father supported her storytelling and language practice. The pedagogical strategies are shown below.

Table 8.1

Lin's Family Story Reading Practice

Pedagogical Strategies	Father's interactive support	Mediating tool	Children's Engagement	Enhancement of skills
Exploratory talk	Asking questions Pointing to the picture	The picture Chinese language	Observing the picture	Chinese language Observation Thinking
Dealing with the conflict	Demands in reading English stories in Chinese	Chinese language "Farm" storybook	Motives in reading the "Farm" storybook	Chinese language
Encouragement	Introducing the animals in Chinese	Conversation Pictures	Imitating Awareness Internalization of the objects	Vocabulary learning
Achieving Intersubjectivity	Recognising Lin's interests	Pictures Counting (Mathematics)	Initiative Asking the questions	Language expression New knowledge of animals Collaborative skills
Collaborative reading skills	Asking questions regarding the picture Explaining new knowledge	Pictures	Observing the pictures Talking about the pictures	How to read a storybook by using the pictures Recreating the story

This table shows that Lin's father consciously supported Lin's Mandarin development from Lin's perspective during the shared book reading, and indicates how the strategies her father applied influenced her individual storybook reading skills.

In the next section, Wen's bedtime story is focused on to provide different aspect of storytelling reading with parents from those already explored. As discussed in Chapter 5, compared to Yi and Lin's Chinese language level, Wen had a low level of Chinese in a bilingual context. How his parents supported Wen's Chinese in storytelling is another important research question.

8.4 Wen's Bedtime Story with His Family

As previous chapter 5 mentioned, the bedtime story is an important Wen's family everyday practice. As Wen's father stressed, "without bedtime story, no sleeping time". The three bedtime stories have been videoed by Wen's parents and two Chinese storytelling have been videoed by the researcher. Reading the Chinese story, "the monkey and the peach" with his mother and siblings is selected to discuss in this section as this shows the typical interaction between Wen's parents and children during the Chinese storytelling.

8.4.1 Case Example 4: Wen's family story time.

The following story vignette was videotaped by Wen's father before the children went upstairs for bed. Wen's mother read them a Chinese story, "The monkey and the peach". Wen's elder brother was there taking part in a different activity. During the storytelling, Wen and his sister did not ask their mother any questions, but listened to it carefully by looking at the pictures of the book.

Image 8.17. Wen's family bedtime story.

The story is related to a clever monkey who always forgets things and finally ends up with nothing. After the storytelling, they had a conversation regarding this.

Mother: 聪聪，聪不聪明啊？< Is Congcong (the monkey's name) clever?>

Wen: No.

Mother: 不聪明啊。它丢三落四。是吧？聪聪本来想摘什么的啊？<Not clever. He forgets this and that. Right? What did Congcong originally want to have?>

Wen: 啊……玉米。<Oh.... corn.>

Mother: 玉米？<corn?>

Wen: 桃。<A peach.>

Mother: 桃，对了。它先看到玉米是吧？看到了玉米，就忘记了摘桃。然后它又看到什么？<A peach. That is right. The monkey saw corn first? When he saw the corn, he forgot to pick the peach. Then, what did he see next?>

Wen: 西瓜。<A watermelon.>

Mother: 哦！它又看到了西瓜。它又捡了西瓜，又忘了摘桃子。<Oh. It was a watermelon. He picked the watermelon and totally forgot to pick the peach.>

Wen: 兔子。<A rabbit.>

Mother: 哦，后来又看到兔子。结果它就去追兔子。对吧？追到最后，有没有追上啊？<Oh, after that, he saw a rabbit. So, he ran after the rabbit. Right? Finally, did the monkey catch the rabbit?>

Wen shook his head to express "No".

253

Mother: 没有。它什么都没有得到。是不是啊？那我们文儿能不能像聪聪一样

呢？<No. The monkey did not get anything, did it? Can we behave like this

monkey?>

Wen: No.

Mother: Wen 不会丢三落四的，是吧？Wen 上学了，要记得保管自己的东西，

不能丢三落四。那 Lili 是不是丢三落四的呢？<Wen does not forget this

and that, does he? When Wen goes to the school, remember to look after your

own things, don't forget anything. How about Lili? (Wen's young sister)>

Lili (Wen's younger sister): 不是的。<No>

Mother: Lili 也不会的。<Lili also won't do it.>

This is just one case of Wen's family bed time storytelling. As mentioned in Chapter 5, in Wen's family, the children normally preferred to read English stories before bedtime. This case shows they read a Chinese story as their mother encouraged them to read Chinese first, and used English if they could not understand it. In Case Example 4, Lin's mother read the Chinese story to her children in Chinese. Wen and his younger sister tried to look at the pictures in the book silently. After reading, his mother used questions to recall their story and tell the story again. The next section focuses on the analysis of Wen's storytelling using cultural-historical concepts.

8.4.2 The leading role within the ZPD.

It is clear from the position they sat around the table that the mother was leading the storytelling and she was closest to the book. Wen was sitting at the opposite end of the table and tried to read the story. Meanwhile, he was holding toys. His younger sister sat on the table. According to their parents, they did not ask questions because of their Chinese developmental level. His Chinese was not good enough to ask his mother questions. According to Kravtsova (2009), his mother took the "above" position whereby she demonstrated and explained the details of the story. She read the Chinese story and supported Wen's understanding. When the child needs a high level of help and information to be given, the adults need to take the *above* position to support the child's engagement. In Wen's case, when compared to Yi and Lin's Chinese level, Wen and his

siblings had a lower level of Chinese; hence, they needed more of their mother's support. This is the reason why Wen and his sister listened to the story carefully without asking questions. Furthermore, Wen's mother's support worked effectively. Wen stopped playing with his toys to listen to his mother reading quietly. This means that Wen was very interested in the Chinese book and could understand it. After reading, Wen's mother went over the story with her children and dealt with the moral of the story. With their mother's support, they investigated a valuable life lesson, which is discussed in the following section.

8.4.3 Investigating a valuable life lesson.

After reading, Wen's mother used a series of questions to support Wen and his sister in recalling the story. It can be seen that Wen had understood his mother, as he was able to answer his mother's questions. Listening to a story in Chinese was a valuable opportunity for Wen to experience Chinese literacy and explore Chinese words. His mother's Chinese reading played a mediating role in supporting Wen's Chinese learning.

An important aspect of the reading was Wen's mother's organized comments on the story through questions. For instance, at the end their mother asked them "Can we behave like this monkey?" to which Wen said "No", showing he did not like the monkey's behaviour. Then, his mother commented, "When Wen goes to the school, remember to look after your own things, don't forget this and that." Wen would go to the primary school the next year, so his mother applied the moral of the story to support the children's exploration of a valuable life lesson "Don't forget this and that". Wen and his sister Lili also remembered that it was important to look after their own things. All of this experience was communicated in Chinese. "As learners experience the wide variety of functions and forms of language, they internalize the way their society uses language to represent meaning. So they are learning language at the same time they are using language to learn" (Goodman & Goodman, 1990, p.231). Thus, listening to the story and investigating the story supported their enhancement of Chinese knowledge.

8.5 Chapter Conclusion

The purpose of this chapter is to further investigate family storytelling practices and seek to understand how parents contribute to their preschooler's heritage language development through the family practices of shared book reading and storytelling at home. Drawing upon Vygotsky's cultural-historical concepts, the data has been deeply analysed in order to better understand the dialectical transformation dynamic of parent-child interaction to individual child development. It provides further evidence for Vygotskian theory that "all activity is initially social in nature" (cited in Hedegaard, 2008a, p. 297).

The findings reveal that their conversations, the storybooks and pictures in the storybooks act as a psychological tool to symbolically mediate children's language development and story-reading. Vygotsky (1997d) argues that "the psychological tool, which becomes the structural center or focus, i.e., the aspect that functionally determines all the processes that form the instrumental act" (p. 87). The tools (i.e. story books and pictures) are considered a key characteristic in each family's storytelling practice, as they connect between the objects (storybooks) and the mental acts (understanding the story).

The data analysis shows that the study's parents acted as human mediators to guide children's language, cognitive and imaginative thinking development through the shared book reading and storytelling. The most important finding is that the way parents used the storybook made a difference to the child's reading development and language enhancement, providing a response to the research question seeking to identify *what strategies parents use to support their children's bilingual heritage language development*. Using cultural-historical concepts, such as motives, tools, conflicts, the ZPD and mediation, and applying these to Wen's storytime and Lin's shared book reading and her own storytelling practice provided a way to investigate family pedagogy supporting children's Chinese development.

In conclusion, during the shared book reading or storytelling family practice, from a Vygotskian perspective, the role of parents/adults in the social contexts is to provide

guidance through explanation and exploratory talk within children's ZPD, so that children, through their own efforts and recreation, assume full control of the use of verbal language and storybooks for reading and understanding stories. The way parents guide children to read stories is an important pedagogical issue discussed in the chapter.

In the instrumental act, the role of storybooks and pictures is to provide problem situations and a psychological tool to mediate the interaction between the child and the storybook. The way to use storybooks to support interactions between parents and child and contribute to the child's development has been analysed in this chapter. Through this analysis, the child's mental process (language developmental process) is taken as the complex functional unity of the adults' (parents') interactive support and the mastery of a psychological tool (using the storybooks).

The final chapter begins with the findings of rich research data in family practices, and then discusses the interactions between parent and child in everyday family practices supporting children's Mandarin development, and how the family practices are related to their cultural values. The cultural-historical family pedagogy is a new way of thinking about children's bilingual heritage language development and contributes to cultural-historical research and language research.

Chapter 9

Conclusion: A Model of Family Pedagogical Principle

The method of Marxist dialectics requires that we go further and investigate the development as a process of 'self movement', that is, investigate its internal moving relations, contradictions, and mutual transitions so that its prerequisites appear in it as its own changing moments. (Leont'ev, 1978, p.105)

9.1 Context of the Study

This thesis draws on a dialectical-interactive paradigm based on cultural-historical theory and seeks to understand how immigrant families support their children's bilingual heritage language development in their everyday life. The previous four chapters focused on illustrating the family practices that were observed in the research field, of Chinese-Australian immigrant parents supporting their children's bilingual heritage language development. Specifically, the daily practices from three researched families were analysed and discussed by taking a cultural-historical perspective, which included play, household activity and shared book reading.

On analysis of the data, some important findings have come to the foreground. The final chapter reports findings derived in a dialectical way from the cultural-historical case studies. The wholeness approach and analysis offered support in finding the answer to the research questions that were asked in the introduction of the study.

The main research question for this study is:

What are the ways that parents support their children's bilingual heritage language development in their everyday family practice?

Subsidiary questions are:

Q1: How do parents participate in play activities in order to contribute to children's bilingual heritage language development?

Q2: What other interactions between parents and child appear to be important in supporting children's bilingual heritage language development?

Q3: What are the strategies parents use to support their children's bilingual heritage language development in relation to their cultural beliefs about child rearing and learning?

In drawing upon cultural-historical theory, new insights into children's bilingual heritage language development in the home context have emerged. By viewing three families' practices from a "bird's-eye perspective", this final chapter identifies the key characteristics of the family pedagogies that were applied when parents engaged in daily family activities with their children in order to support their children's language development.

This research demonstrates the dynamic transformation process of children's bilingual heritage language development within children's everyday family practices. Furthermore, the research shows that family play activities are considered an important mediating tool to achieve positive transformation dynamics in children's development; The central finding of this research indicates that effective parent-child interactions are key to the achievement of the positive development of children's bilingual heritage language.

In this final chapter, the findings of the study are brought together in a model of the family pedagogical principle (See Figure 9.7). To achieve this, a brief overview of the study is presented, followed by a synthesis of the findings, concluding with a model of the family pedagogical principle. Specifically, this chapter gives a synthesis of the case examples of family practices and the pedagogical strategies used by parents, thus creating a conceptual model of family pedagogy. Finally, this chapter retheorizes cultural-historical concepts in relation to children's bilingual heritage language development. By doing so it offers a contribution to cultural-historical theory and the

literature of language study in a theoretical way, while supporting family pedagogy in a practical way.

9.2 The Methodological Process of the Research

The wholeness methodological approach has been applied in this cultural-historical case study in order to investigate three Chinese-Australian immigrant families' everyday practice. The wholeness approach to the research means that the data are generated and analysed comprehensively. The different examples used in each chapter show how children develop new concepts in Chinese by engaging in everyday family practices, and how parents support their children in developing their Chinese language skills and generalizing word meanings of new objects in Chinese. As discussed in the methodology chapter (4), Chapters 5, 6, 7, and 8 provide a cultural-historical view on what the data collected from each research family means. The methodological process of the research is shown in Figure 9.1 below.
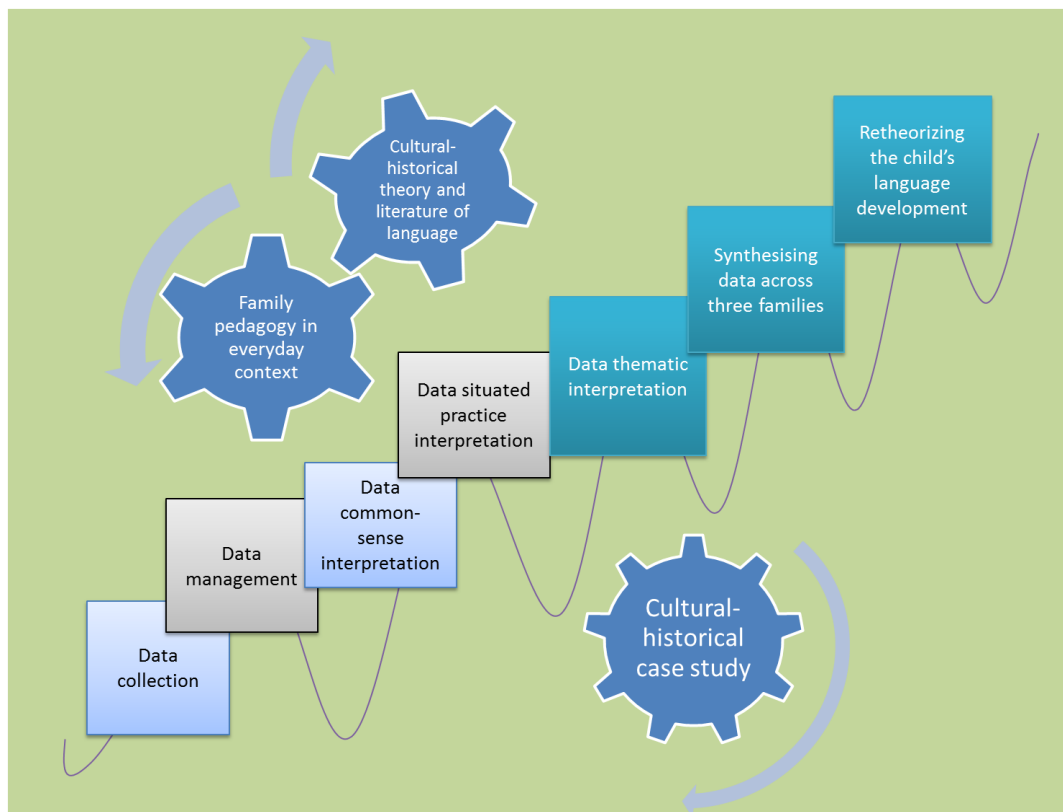
Figure 9.1. **A map of the methodological process of the research.**

The whole methodological process is represented above as a dynamic and continually developing procedure. As discussed in the methodological chapter (4), the analytical methodological process of this research includes four dynamic spirals, beginning with the common-sense understanding of the video clips from individual families. The analytical process then proceeds to the situated practice and theoretical interpretation of the data, culminating in a synthesis of the multiple data sets from all three researched families in terms of the research questions, focusing on parents' interactions with children and family strategies to support the children's heritage language development. In the final spiral of the research methodological process, the investigation of children's bilingual heritage language development is retheorised to take account of family pedagogy in children's everyday contexts.

Thinking dialectically, it is possible to understand family practices and parent-child interactions in daily activities in a comprehensive and systematic way. In the next section, dialectics are considered as a key point of the research and are discussed further.

9.3 Dialectical Research

As argued by Gonzalez Rey (2008), "the dialogical-subjective axis becomes important for considering human development in any area of life or human activity" (p. 151). This research covers a range of dialectical analyses, including the dynamic developmental process of higher mental functions, children's language and thought development in family practices, and parent-child interaction within psychological functions.

9.3.1 The child's bilingual heritage language development from social to individual.

Much of the individual research on the development of children's higher mental functions, such as children's speech, the mastery of reading and writing, and the development of scientific concepts, have been conceptualized "mainly from the innate aspect, from the aspect of the natural processes that formed them and were a part of them" (Vygotsky, 1997c, p.2). As discussed in Chapter 2 (literature review), by taking a biolinguistic perspective, the Chomskian theory of language is only related to the lower

level of mental functions and considered in terms of innatism (Robbins, 2001). The child acquires basic grammatical principles largely because of an innate biological endowment (Crain & Pietroski, 2002). For Chomsky, these innate principles are called "universal grammar", and are available to all human languages, working as an innate mental model to allow children to acquire language. The development of speech is considered "outside its social function, as an individual activity of the child" (Vygotsky, 1998e, p.273). In other words, Chomsky ignores both the social and the communicative dimensions of language and the social roots of children's language development. On the other hand, Karl Marx defines the concept of *development* "as a human individual, who is taken in unity with humanity, and is directly understood as a social creature" (Kravtsov, 2010, p.65). Vygotsky (1987c) also confirms that "only consideration of individual speech as a part of a dialogue, cooperation and communication, provides the key to understanding its changes… the ideal form [the developed speech of adults] is the source of the child's speech development" (p.273). Thus, it is not scientific to investigate children's language development without considering the social functions of language and the contexts of its use.

The Vygotskian theory of human language development provides an account of the social origin of language and the function of communication to a child. Unlike Chomsky's work, Vygotsky's study does not offer a theory of language, but furnishes an approach to understanding language development that is "semiotic in nature by placing sign systems, *word meaning as a unit of analysis*, concept formation and the like within a *genetic… developmental asymmetrical continuum*" (Robbins, 2001, p.85). His understanding of *the general genetic law of development* lies at the heart of his "reciprocal, dynamic, dialectic, asymmetrical, and nonlinear approach to child development" (Robbins, 2001, p.101).

The Vygotskian theory of child development focuses on the dialectical connection between the social and the individual, whereby "all the higher mental functions were formed not in biology, not in the history of pure phylogenesis, but… are the essence of internalized relations of a social order, a basis for the social structure of the individual" (Vygotsky, 1997b, p.106). In other words, all the forms of higher mental functions (including child language development) begin with the interpsychological plane, and

262

then become functions of the intrapsychological plane (the individual himself/herself). The dynamic process of the transition from "we" (child and parents) to "I" (individual child), and the formation by the individual (child) consciousness of new concepts is evident in this study in regard to children's bilingual heritage language development.

Researching a child's bilingual heritage language development focuses on the child's social relations with parents and psychological tools such as pictures in storybooks, mathematics, play materials, etc. The internal learning process of bilingual heritage language proceeds from social to individual. The three researched family practices indicate that parent-child social interaction acts as a facilitator of the preschooler's bilingual heritage language development.

First of all, as discussed in Chapter 5, according to the researched parents, the home context is an important platform for their children to learn Chinese. Without communication between the parent and child in the home context, the child would not be able to learn Chinese in the Australian English environment. Furthermore, the differences between the three researched families' Chinese language use resulted in the children having different Chinese language competencies. Yi and Lin's families' home language was Chinese-based, while Wen had a mostly English-based environment, which meant that Yi's and Lin's levels of Chinese language competency were better than Wen's.

Lin's family practices of *play* exemplify how parents are involved in children's play activities in order to contribute to their children's heritage language practice and development (Research question 1). With her father's support, Lin developed a good understanding of Chinese cooking and made sense of Chinese words in the Chinese cooking context, such as "stove", "straw", "barbecue", etc. As a result, Lin mastered Chinese cooking knowledge and language concepts. In the case of Lin and her father's *play* situation in the park, Lin's language development can be seen as the result of their *play* and her father's communicative subject positioning strategies within her zone of proximal language development. Lin's play examples show that the individual child's internal language learning process relates to the "societal framework" (Robbins, 2001, p.85). "As verbal thinking represents an internalization of speech, as reflection is an

internalization of argument, precisely so the mental function of the word… cannot be explained in any other way unless we bring into the explanation a system broader than man himself [herself]" (Vygotsky, 1997b, p.103). This means that in order to understand the development of speech in the behaviour of an individual, we must consider it in a broad way as a social function, which is the original psychology of the function of speech (Vygotsky, 1997b). The central idea of Vygotsky's theory is that children join in cultural activities (e.g. everyday family activities) with the assistance of others (e.g. parents), and thus internalize tools (e.g. Chinese language) for thinking (Rogoff, 1998).

Yi's dinner table conversation demonstrates that Yi had a very comfortable Chinese language environment, which resulted in her having significantly competent Chinese language skills in contrast to Lin's and Wen's. Yi's parents applied "known answer questions" to support Yi's experience within the Chinese context in her ZPD. Yi was able to generalize the scientific concept of rainbow colours when she engaged in communication with her parents around the dinner table. Moreover, Yi solved a grammar mistake when her father understood her conversational intent. The communication with her parents provided Yi with an opportunity to understand the rainbow colours and master a Chinese grammar rule. Thus, it can be interpreted that Yi's development of her heritage language is a cultural development. In this sense, language is social in nature and a form of higher cultural activity (Jones, 2008). Analysis of the conversation shows the functions of the social event in which Yi mastered words (rainbow colours) and language in use, beginning externally. Most importantly, the event supported Yi in becoming conscious of the right grammar in use and in internalising the natural use of Chinese.

As he/she engages in the environments available, the child not only interacts with external objects or others, but also, as the subject, interprets external and social events through what is called the child's *consciousness*, which is considered a main point of child development. As Davydov (2008a) argues, "for Vygotsky the determination of the individual consciousness takes the following form: collective (social) activity in the form of people's social interaction-cultural signs-individual activity-individual consciousness" (p. 180). It can be seen that the means of collective activity determines the individual consciousness and the individual subject needs to take into consideration

264

the fact that he/she is "included within various systems of collective practical and cognitive activity" (Lektorskii, 1981, cited in Davydov, 2008a, p. 180). In Chapter 8, Lin recalled a past experience (her jumper) when her father mentioned the warming function of wool in their shared book reading. This shows Lin's primary motive to interact with her father in a shared activity of great importance to them (Mandarin speaking). Lin's father understood Lin's interest in the new storybook, thus supporting her engagement by asking questions. Lin made sense of "wool", consciously understood the concept of "wool", and generated the word meaning of "wool". Also, in Chapter 7, Yi's interpretation of the eating behaviours of her green toy rabbit by imagining the rabbit using a "spoon" reflected her understanding of her own eating habits. First of all, it shows her interest in playing with her rabbit. Moreover, it offered Yi's father an opportunity to support her exploration of the eating habits of rabbits because of Yi's initiative, which involved her in their dinner conversation. Finally, Yi developed her own *consciousness* of the habits of rabbits and the difference between human beings and rabbits through the collective communication with her father. This echoes Zinchenko's concept of consciousness;

> The task of any science that lays claim to studying consciousness is to fill it with concrete ontological substance and meaning. After all, consciousness is not only born in existence and not only reflects and therefore embodies it - to be sure, in a reflected or distorted light - but also creates it. (Zinchenko, 2009, p.46)

The conscious understanding of the new concept "wool" cannot only be seen as the product of the reading activity; it is also a reflection of the shared book-reading practice with her father. In Yi's case, making meaning of the eating habits of rabbits cannot only be considered as the product of the dinner conversation with Yi's father; it is a reflection of her internalization of their communication. In this situation, the child's language development is related to the consciousness of the external world; meaning the child's internal "subjective configuration" (Gonzalez Rey, 2011, p.46). Therefore, by acting on the material world (wool, the jumper, the eating habits of rabbits), as signs or psychological tools, through communication with their parents, the children (Lin or Yi) produced their own subjective meanings of the objects' existence (wool/the habits of

rabbits). Vygotsky (1998e) states that "I see in the object something more than is contained in the direct visual act,… when I speak of one object or another, this means that I not only see the physical properties of the object, but I also generalise the object according to its social purpose" (p.277). Linking these ideas to children's bilingual heritage language development, it can be argued that this development not only begins with the situational relations between children (Lin) and others (parents), but also depends on children's generalization of the meanings of words (Lin's internalization of the meaning of *wool*) in terms of social purpose (Chinese vocabulary enhancement). The generalization of the object is determined as a result of "subjective configurations" within a given social situation (Gonzalez Rey, 2011). Gonzalez Rey has argued that

> More specifically, children can involve themselves in their play's performance more than the cognitive element. Their tactics and actions embody emotions and symbolic processes, experiences, images, anticipations that are not cognitive at all but truly subjective productions. They are the result of the subjective configurations of those processes that appear as the real motive of those performances. (Gonzalez Rey, 2011, p.46)

Thus, the interaction with the external world and others not only influences children's language development, but children's motives, perceptions, and intentions also determine children's *subjective configuration* of communication within social situations. In the case of Lin's shared book reading and Yi's play with her toy rabbit, their motives to read and play indicated their conscious *subjective configuration* of reading and playing, acting as an invisible power to support the child to learn, deal with problems, and then master new concepts. Their motivation to read and play indicated their *conscious activity* which is only expressed through their language and performed through their actions. According to Marx (1845),

> Language is as old as consciousness, language is practical consciousness that exists also for other men [sic] and only in this way existing also for me alone, real consciousness; like consciousness, language develops only from need, from a persistent need to communicate with other people (p. 29).

Consequently, children's language development is the result of the influence of the external objective world, parents and *subjective configuration*. The child's "subjective configuration" drives him/her to explore the external world through social communication/relations with others (parents), thus, the child configures his/her own understanding of the world, develops his/her actions and forms everyday/scientific concepts. These are the psychological functions and processes acting with the child's sense field and optical field, which enhance the new understandings of the child's higher mental functions. The role of parents is to support the development of children's motive and children's subjective configuration of language practice, and mediate children's heritage language development within everyday family practices. Before we move on to parents' pedagogical strategies in supporting children's language development, we need to trace the dialectic relations between speech (language in use) and thinking.

9.3.2 The unity of thinking and speech (language).

As Vygotsky (1997a) argues, "Speech becomes intellectual, connected with thinking, thinking becomes verbal and connected with speech" (p.123). In other words, speech is a tool for thinking. Language and thinking are viewed as unified and dialectically related to each other, contributing to children's higher mental functions and the psychological transformative process. As discussed above, taking into account children's generalization of the meaning of words (*subject configuration*), we may clearly see the unity of speech and thinking. Vygotsky (1998b) argues that

> In the relation of speech and thinking, [they] must be taken as a unity… Meaning of a word is a part of the word, a speech formation, because a word without meaning is not a word. Since all meaning of a word is a generalization, it is a product of the intellectual activity of the child. Thus, the meaning of a word is a unity of speech and thinking that cannot be broken down further (p. 294).

As previously mentioned, children's development involves the transformation from the interpsychological to the intrapsychological category. The process of development of the psyche starts with children's social interactions with adults/peers through object materials. The social interactions with adults are established by communication, and the

267

meanings of the words they use correspond with the meanings built into adult's language in those particular culturally communicative situations (Vygotsky, 1987d). The child's communicative developmental situation (interactions between child and adult), "gives rise to various meanings of words, and these meanings develop" (Vygotsky, 1998e, p.273).

This study sought to find out in what family practices parent-child interaction supports their children's bilingual heritage language development. The study has shown that the dialectic relationship between language and thinking development supports a better understanding of the family practices of Yi, Lin and Wen's families in regard to their Chinese language development.

Chapter 7 discussed Lin's baking activity as part of her family practice. Lin's father asked her the questions "how many cookies are on the plate?", "If Meimei has one cookie, how many cookies will be left?" and "Nine cookies to six people, how many cookies can each one eat?" The questions became progressively more difficult. All the questions were counting tasks. First of all, Lin tried to understand the questions in Chinese. For example, Lin felt that it was hard to understand the question of how many cookies would be left after each person received one. Her father explained it to her by making the question into a counting situation. Her father pointed to each cookie and said, "This is for the first person. That is for the second person, then the third person…" With her father's support, the process of understanding was one of language learning, which made her conscious of the questions.

Furthermore, when she figured out the answer, she had to express it in Chinese. As discussed in Chapter 7, she answered one of the questions with "You need to distribute one to each person", which is the wrong grammar use in Chinese. Her mother consciously corrected her grammar mistake. This shows another way to learn Chinese in a counting task. The example shows that Lin's bilingual heritage language development progressed together with mathematical thinking and counting skills. Within that process, Lin's language expression became intellectual (mathematic/scientific) thinking and her inner thinking was verbalised by the language of "one for each". Thus, Lin generalised the word meaning of "one of each" in Chinese through the counting task. The case of

Lin's bilingual heritage language practice enriches the argument of Vygotsky (1987d) that word meaning, as a unit of analysis, shows the dialectic relations between thinking and language.

Chapter 8 explored shared book reading in family practice and discusses three case examples. An example of Wen's family's bedtime story was considered "a valuable life lesson." Wen's Chinese language practice is indicated by his answers to his mother's question after the storytelling. Meanwhile, Wen's mother gave him a life lesson, "don't forget this and that", through the storytelling. In other words, Wen interpreted the Chinese idiom "Don't forget this and that" in terms of how he would look after his own things when he became a school boy. As a result, Wen understood the real meaning of "Don't forget this and that" in Chinese through his mother's storytelling. According to Vygotsky (1987d), "thinking depends on speech, on the means of thinking, and on the child's socio-cultural experience" (p. 120). Wen's storytelling example demonstrates the process of his thinking development on this moral concept "Don't forget this and that" through his mother's storytelling. Thus, "the development of the child's thinking depends on his mastery of the social means of thinking, that is, on his mastery of speech" (Vygotsky, 1987d, p.120), in this case, his understanding of mother's storytelling. Wen's bilingual Chinese language thinking demonstrates a "socio-historical form of development" through the family social interactions.

The two case examples of Lin and Wen examine how children experience bilingual heritage language practices within their everyday concept formation and scientific and cognitive thinking. They show that collective activity with parents is the foundation for children's heritage language development. In such activity, parents' communicative support exercised an important function in the children's Chinese language development. Children cannot attain language and knowledge without communication. Adults' communication with children connects deeply to children's language development (Kravtsov, 2010). The most important point is how to communicate with children to achieve children's heritage language potential, which is the main question of this study. How the parent-child interaction in everyday family practices supported the children's bilingual heritage language development is discussed in the following section with reference to the data.

9.4 Findings: Family Pedagogical Strategies

"A person develops through *participation in* an activity, *changing* to be involved in the situation at hand in ways that contribute both to the ongoing event and to the person's preparation for involvement in other similar events. The focus is on people's active transformation of understanding and engagement in dynamic activities" (Original emphasis, Rogoff, 2003, p.254).   As discussed earlier, children's heritage language development progresses from social to individual. Children only actively participate in everyday practice with their parents by contributing to interaction and communication, and then children are able to internalise their understanding of their surroundings and experience Chinese language social situations, thus developing their Chinese language. In this process, parents' support is very important to encourage their children's active engagement. Thus, the following section discusses the important findings which uncover the family strategies parents may apply in supporting their children's heritage language development, in order to answer the main research question.

9.4.1 The dynamic transformation model of children's bilingual heritage language development.

The research questions regarding why Chinese-Australian parents' support is very important to children's bilingual heritage language development, and how immigrant parents support this development, have been discussed in Chapters 6, 7, and 8. The analysis and discussion of the three families' data in Chapters 6, 7, and 8 conceptualised the dynamic transformation process of children's bilingual heritage language development within everyday family practices, which is discussed in detail below. Most importantly, parents' support and psychological tools mediate children's Chinese language developmental process within family practices. The dynamic developmental process has been discussed in the theoretical chapter (3). In relation to Figure 3.2 in Chapter 3, this research provides a deeper understanding of the dynamic transformation process of children's heritage language development, which is represented in Figure 9.2.
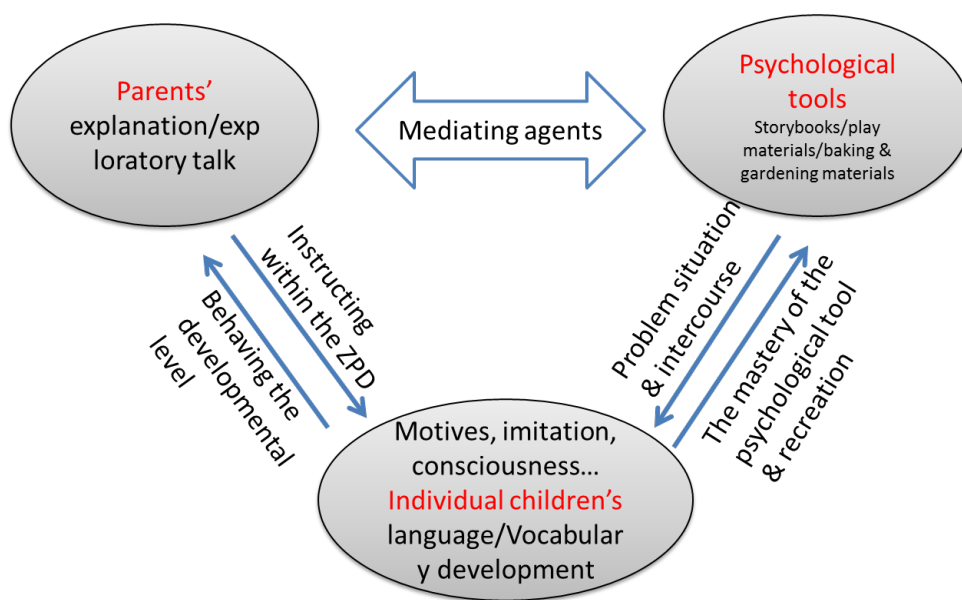
Figure 9.2. **Transformation dynamics of child language development in family practice.**

Raban (1999) discusses in her research that "language use is considered active and dynamic, whether the user is speaking or listening" (p. 101). Figure 9.2 presents the transformation dynamic process of children's language development in family practice. Davydov (2008c) argues that "all forms of human intellectual activity… are realized by social processes rather than by isolated individuals. They have socially and historically evolved methods and means for constructing and operating with objects and for idealizing, fixating, and transforming those objects… Symbols and signs are the means for constructing this idealized objectness" (p.94). The data of this study demonstrates that children may develop motives in language learning, master consciousness of concepts, imitate parents' words and actions, and develop their heritage language when they engage in social practice with their parents, and interact with their parents using psychological tools within everyday family practices such as role play activities (Chapter 6), household activities (Chapter 7) and shared book reading (Chapter 8). Most importantly, parents may apply pedagogical strategies such as explanations or exploratory talk to mediate their children's engagement in the activities, thus improving children's Chinese language. Furthermore, in everyday family activities, the books, pictures and play materials act as psychological tools to support children's interaction with their parents and problem solving, thereby enhancing their Chinese language in use.

271

Chapter 6 discussed Lin's cooking role-play with her father at the park after dinner, which shows the roles of parents' interactive support and the mediation of psychological tools in Lin's Chinese language development in an imaginative play activity (Research question 1). Within Lin's ZPD, her father applied a series of questions to support Lin's understanding of Chinese cooking steps and the mastery of Chinese cooking concepts. Chinese language, the play bench, and the tanbark provided psychological tools to support Lin's imagination development and mediated the social interaction between Lin and her father in the play activity. As a result, Lin was given a chance to explore Chinese cooking knowledge and recreate an imaginative cooking situation, thus improving her Chinese language in use and enhancing her Chinese vocabulary. Lin's Chinese language development in joint role play is represented in Figure 9.3 below.
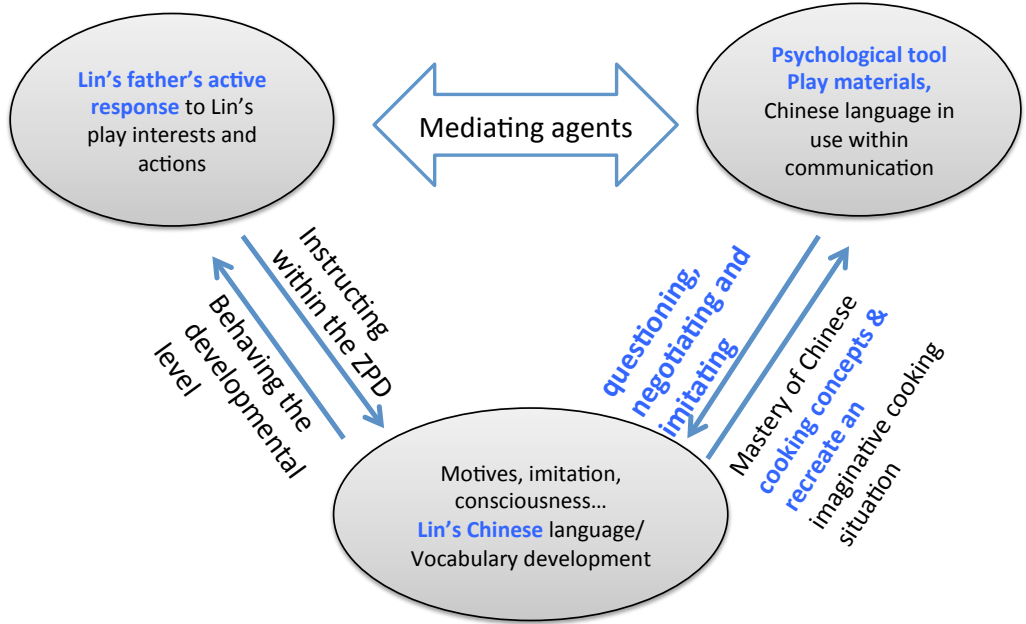
Figure 9.3. Lin's heritage language development in joint role play.

Chapter 7 investigated the three families' everyday household activities, discussing parents' engagement with their children through interactions with materials (dinner food, baking stuff, and gardening tools) using Chinese language (Research question 2). In the case of Wen's gardening experience, his father used a competition strategy to encourage Wen to actively engage in the gardening activity and support the development of his motives in gardening. Meanwhile, his father applied a repeated short phrase to support

Wen's experience of Chinese language through the gardening activity. Their conversation acted as a psychological tool for their thinking and the gardening action. As a result, the gardening activity enhanced Wen's Chinese practice. Wen's Chinese heritage language practice through the gardening activity is shown in Figure 9.4
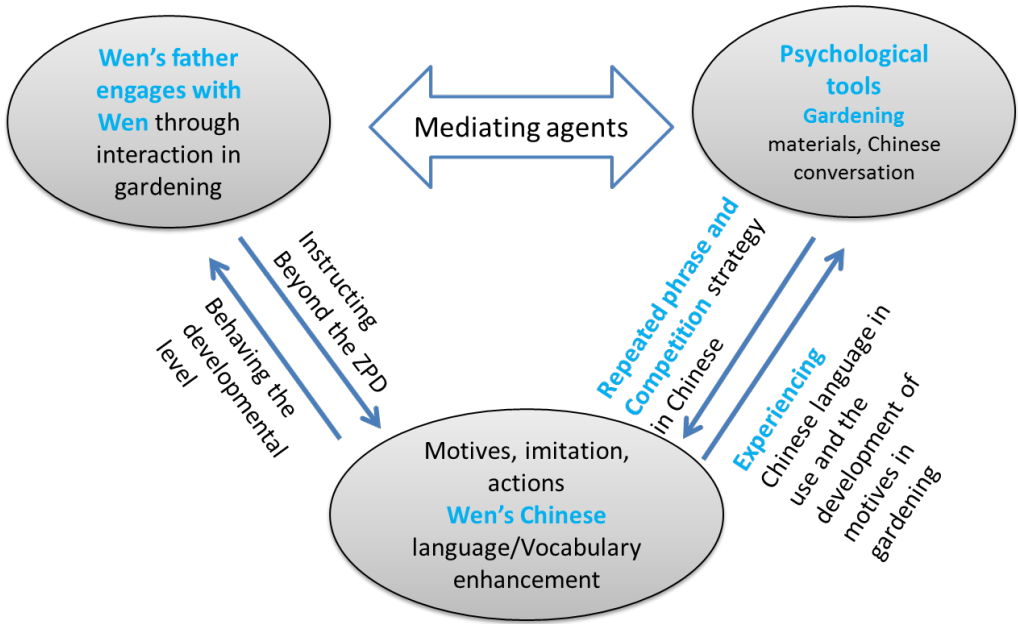
Figure 9.4. **Wen's experience of Chinese language through the gardening activity.**

Chapter 8 explored the three families' storytelling and shared book reading practices, which demonstrated the process of how children interact with their parents and how parents support children's Chinese language development in different ways (Research question 2). Yi retold the story of "The Three Little Pigs" with her parents' assistance by answering the researcher's questions. Her parents, the researcher and the story acted as mediating agents to support her story-retelling as she mastered the Chinese language and developed the competence to retell narratives. Lin's shared book reading of "Farm" with her father shows how her father instructed her understanding of the story by observing pictures and asking questions within her ZPD. As a result of the mediation by her father and the pictures in the book, Lin enhanced her farm-related Chinese vocabulary. The Chinese language practice engaged in as Yi retold the story and Lin shared book reading with her father, has been shown in Figure 9.5 below.
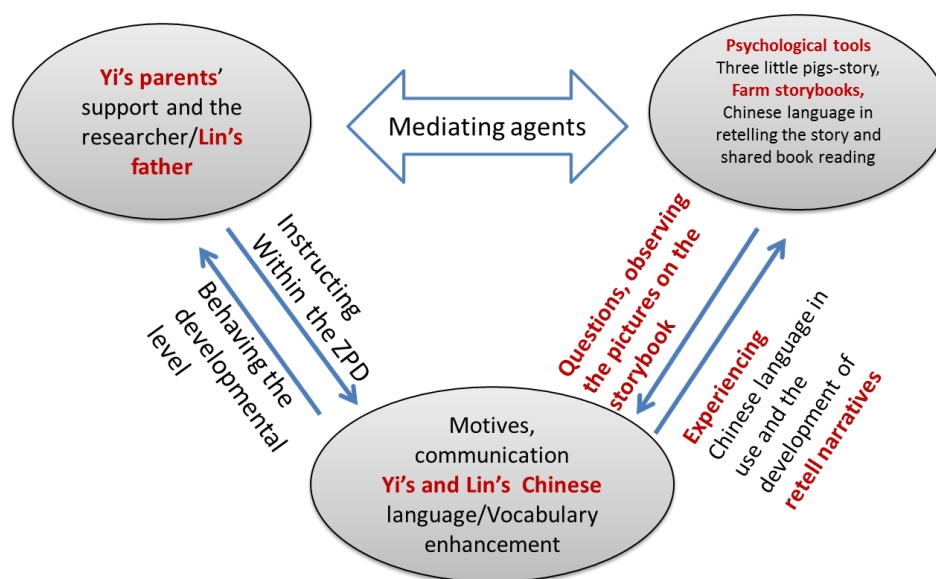
Figure 9.5. Yi's and Lin's Chinese language practice and development in Yi's story-retell and Lin's shared book reading.

The comprehensive analysis of the case studies of the three families' everyday activities, suggests how children can improve their language skills by engaging in everyday practices. Their parents and psychological tools play important roles in fostering children's language development (Karpov, 2005). A conceptualization of children's bilingual heritage language development can be derived from the evidence of these children's language transformation through interactions with symbolic tools and parents. Within this process, how parents mediate their children's activity is an important issue in supporting bilingual heritage language development. In other words, children "learn by doing with others what they do not know how to do because the group (usually the family) supports such active, creative risk taking and performs with them" (Holzman, 2009, p.37).

The next section discusses how family strategies come together to assist children in their heritage language development by looking at the data across the three families. This directly answers the main research question regarding the ways parents are involved in supporting their children's bilingual heritage language development in their everyday family practice. The data in the thesis tries to give a whole picture of the activities, especially the interactions and communication between parents and child. The details of the strategies and beliefs of each family are illustrated (Research question 3).

274

9.4.2 Considering family play activity as a pedagogical tool.

It is important to note that role play is considered as a pedagogical tool to mediate the interaction between Lin and father in Chapter 6, thus supporting Lin's Chinese language development (See Chapter 6, Figure 6.2). Here, it provides a new direction for researching young children's bilingual development. Unlike previous linguistic approaches to researching bilingual language development, this study has focused on the role of imagination in play in bilingual heritage language development through a cultural-historical framework. Play activities support children's exploration of the imagined situation and their imagination of development, thus resulting in their improvement of bilingual heritage language at home, which has been further discussed in Chapter 6. Through play activity, children have a shared understanding of the imagined situation with their parents. Fleer (2011) argues that the shared imaginary situation is "important for developing not only the play, but the play partners' competence" (p.230). From this point of view, children practise and improve their competence in the heritage language through the dynamic process of the convergence of imagination and reality.

This study also offers a new direction for researching children's play. Previous play studies have focussed on play-based programs in preschool settings (Bodrova, 2008; Duncan & Tarulli, 2003; Fleer, 2010, 2011; Smilansky & Shefatya, 1990). This current research investigated play activities at home context seeking out the interaction between children and parents. Lin's father (See Chapter 6) and Yi's parents (See Chapter 7) engaged in their children's role play to support their children's cognitive development and Chinese language development. Furthermore, this study also confirms that family play activity can be seen as a leading source to create the preschooler's zone of proximal language development. This enhances Vygotsky's (1966) arguments on preschooler's play as leading activity to support children's development (See chapter 3).

9.4.3 Family language environment set-up.

In this section, the family environment has been taken into account in the analysis of children's heritage language development because "the development of speech as a

means of personal contact, as a means of understanding the speech of those around him [her], is the central line of development of the child of this age and essentially changes the relations of the child to the environment" (Vygotsky, 1998e, p.268).

Dialectical research interprets issues in reality from multiple perspectives. This study takes the societal (community), institutional (parents), individual (children) and researcher's perspectives to analyse and interpret the data in order to understand the findings. Taking the wholeness perspective to look at the societal, institutional and individual child perspectives allows the researcher to develop a clear and comprehensive account. In order to understand each individual child and their family in relation to children's bilingual heritage language development, we have to take account of the societal and institutional contexts to see the differences across the families.

The societal context involves different cultural communities that are able to maintain or support heritage language development within the three families (Research question 3). As discussed in Chapter 5, Wen's family spoke English most of the time at home. They had an English-speaking Australian friend who had dinner with them every weekday, and also spent holidays doing things such as going to English-language museums. In Wen's family, it can be seen that the societal pressures of being in a dominant language society made it harder to maintain and practise their heritage language (Chinese), although they had employed certain family strategies to allow their children to experience Chinese language in recent years. Therefore, Wen's English was a lot better than his Chinese language in use.

In the case of Lin's family, her father actively engaged in everyday play, household and shared book reading activities in terms of Lin's interests and motives. Significantly, her parents were able to take Lin's perspective and support the development of her motives in play in order to create a context where additional practice and engagement in her heritage language was possible. Lin's father took Lin's perspective and focused on her motives to join in imagined play (*supermarket play and restaurant play*), which reflects Vygotsky's opinions of play being central to families' pedagogical strategies. Play as a pedagogical tool was used by Lin's father to support her bilingual heritage language development.

276

Furthermore, Lin's parents were able to speak English, but they chose Chinese as their home language. They believed that Chinese was very important to their children as they were Chinese. From the parents' perspective, children need to grow up in a very rich heritage language environment, which may only be developed in the home context. Indeed, other research on heritage language development maintains that "the importance of a rich language environment that involves adults is indicated by the wide differences in speech use and vocabularies among children" (Gredler & Shields, 2008, p.117). This point of view is also evident in Yi's family's language practices.

In Yi's family, neither parent could speak English very well. Chinese was the only choice and the main language spoken at home. Most of their family friends were Chinese and they chose to live in a Chinese-based community. The societal activities the family joined in were also Chinese language-based. For example, they borrowed Chinese storybooks from the public library, and Yi went to a drawing class with a Chinese teacher on the weekend. As a result, Yi was able to experience a rich Chinese environment and to be interested in practising Chinese, thus she had a high level of Chinese proficiency. Therefore, the language environment determines the opportunities for the language development of the child through their experiences in a communicative environment (Vygotsky, 1998b).

To sum up, the differences between the children's societal and institutional contexts across the three families shows how children's heritage language (Chinese) proficiency is related to the language experiences within their family environment in everyday life. Hence, the family language environment is important to children's language development. Parents need to set up a communicative heritage language environment to develop children's motives by taking on children's perspectives. "Two-way" engagement is also necessary when they encourage children's heritage language development in the home environment. Moreover, children develop their bilingual heritage language collectively with their parents through their "active relationships with others [parents] at varying levels of skills, knowledge, expertise, ability and personality" (Holzman, 2009, p.37). The way to engage with their children is another important factor when they encourage children's heritage language development in the home

environment. In the following section, the three family's strategies in regard to children's Chinese language development are discussed as a whole.

9.4.4 Subject positioning within the child's ZPD.

In this section, subject positioning is used to focus on parents' communicative strategies within their family practices, which were discussed in Chapters 6, 7, and 8. In the theoretical chapter (3) the *subject positioning theory* was explained (Kravtsova, 2009). The type of assistance given to the child from adults or more capable peers depends on the size of child's ZPD. Adults may support their children by taking different positions (*great we, above, equal, under and independent*) during communication. This study investigates how parents' *subject positioning strategies* are applied within everyday family practices in support of their children's bilingual heritage language development. During daily family practices, the way parents position themselves when engaging in their children's activities makes a difference to their children's Chinese language practice and development. Table 9.1 depicts the researched parents' position strategies when supporting their children's Chinese language development during the family everyday practices.

Table 9.1

Three Families' Pedagogy in Everyday Family Practice

| Parent-child position	Family Activities	Parents' support	Child's development
Greater we-*independent*	Lin's storytelling "The hare and the tortoise"	Reading a new storybook	Reading skills Chinese language expression Narrative knowledge of the story
Above-*Under*	Lin's cooking role-play in the park	Lin's father introduced new concepts of Chinese cooking knowledge e.g. "Where is the meat?"	Concept formation of Chinese cooking Chinese vocabulary Communicative skills
	Yi's dinner conversation	Yi's mother reminded her of the rainbow colours in Chinese	Chinese vocabulary enhancement Communicative skills
	Lin's baking activity	Lin's mother's model of baking steps	Making sense of a baking activity Remembering Chinese vocabulary
Equal-*Equal*	Lin's cooking role-play in the park	Lin's father negotiated how to cook. E.g. fry the meat or barbecue it.	Chinese language in use Cooking knowledge
	Lin's supermarket play	Lin's father and Lin negotiated selling and buying food to eat. E.g. Father: "Do you have anything I can put in my mouth to eat?" Lin: "You can eat there [Kitchen]"	Thinking Language in use
	Lin's counting activity after baking	Lin's father and Lin negotiated the distribution of cookies: E.g., "Can you eat those three?"	Thinking Language expression
Under-*Above*	Lin's cooking role-play in the park	Lin's father questioned what to cook. E.g., "what else do we need to cook?"	Language expression
	Yi's dinner conversation	Yi's father used known-answer questions about mixing colours	Language expression
Independent-*Great we*	Wen's gardening	Wen's father used repeated Chinese words to remind the children about the actions	Making sense of Chinese language
	Lin's cooking role-play, baking activity, and shared book reading	Lin's sister Meimei observed the baking, cooking role-play and looked at the pictures in the book.	Making sense of family practices
	Wen's bedtime story	Wen's mother took the leading role to tell the story by reading the written text and asked the questions requesting the simple answers in Chinese	Chinese listening

It can be seen that the three families' parents used different positions when they communicated with their children in daily activities. For example, Wen's Chinese was not good enough to ask questions, negotiate with his parents, and express his thoughts in Chinese, so his parents took the "independent" position to support his understanding. However, Lin and Yi's Chinese skills were good enough to understand questions and express their ideas, so their parents took an "under" or "equal" position when they were involved in the activities. Which position they took was determined by their children's Chinese language competence and the difficulties of the task parents demanded of the child. In other words, which position a parent takes can be considered as a strategy to deal with the conflicts between children's motives and competency and parents' demands.

Furthermore, another key point concerning parents' positioning strategies is that both parents in the family may work together to support children's engagement and language development. As discussed in Chapter 8, when Yi retold a story, Yi's parents took different subject positions to support Yi's story-retelling of "the three little pigs" within Yi's ZPD. When Yi was asked, "*what did the three little pigs do in the story*?" by the researcher, Yi could not understand the question and was not able to answer it. In such a situation of conflict, Yi's father took the "*equal*" position by giving a wrong answer to motivate her to correct it. Furthermore, Yi's mother took the "*under*" position and asked Yi questions about the three little pigs building the house. Yi could retell the story in her own words by answering the questions and correcting her father's mistakes. This shows that both parents had a good understanding of Yi's Chinese language developmental level and dealt with the conflicts in a positive way by taking different communicative positions.

This kind of positioning strategy can also be found in Lin's counting activity (See Chapter 7). Her father took the "under" position to ask Lin a challenging question of how six people can eat nine cookies in order to support her mathematical thinking. Lin was not able to answer this question, but then Lin's mother took an "equal" position and said "*I can eat three and you only have zero*". Her mother's answer enabled her to rethink the task. When the task is too difficult for the child, both parents may work together to support their children. The conflicts between Lin's ability to solve the

mathematical task and her father's question determined Lin's mother's decision to take an "equal" communicative position.

Parents apply subject positioning strategies within children's ZPD by taking children's perspectives, which shows their "Two-way" engagement based on parents' understanding of children's competency. This is the way parents deal with the conflicts taking both parents' and children's perspectives. By using "two-way" engagement, parents' demands and children's interests are met. Parents and children collectively contribute to the activities and share their thinking in order to deal with the conflicts positively. Family pedagogy as identified to this point is reflected in Figure 9.7.1.
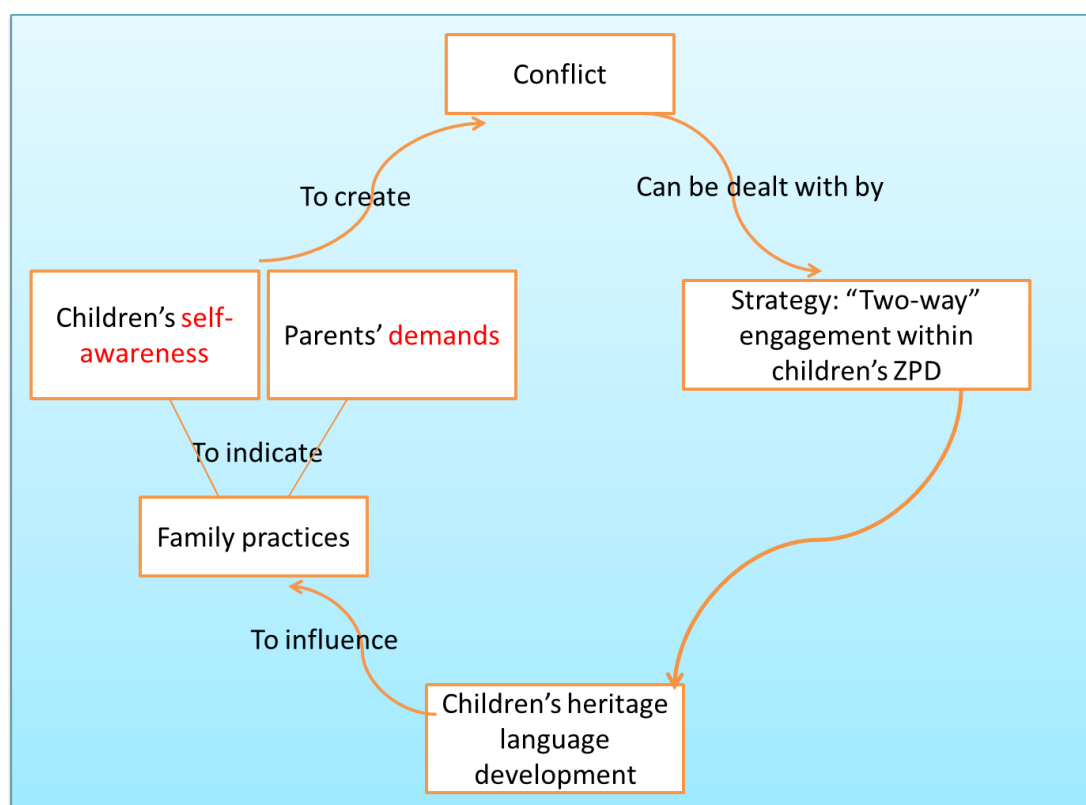
Figure 9.7.1. **Family pedagogy: children's self-awareness and parents' demands.**

Family practices indicate children's motives and their self-awareness of their ability, and also indicate parents' demands and their understanding of children. These motives and demands often create a conflict. Parents may apply the subject positioning strategies to create a "two-way" engagement within children's ZPD to support children's heritage

language development in their everyday family practices, in order to achieve the "two-wayness" and the reciprocity in interaction. In other words, through the "two-way" engagement, parents are able to deal with the conflicts between their demands and children's self-awareness, thus motivating children's engagement in the family activity. In this engagement, the positions parents take are reflected by the questions they ask their children. However, asking children questions is not always a successful parental strategy, as not all parents' questions support children's developmental potential. How to ask children questions is an issue that needs to be looked at. It is however clear that "two-way" engagement is important for asking children questions in an effective way.

9.4.5 Question asking within the conversation.

In this study, the data shows that the way parents ask children questions in conversation makes a difference to children's language development. What kinds of questions support children's exploration of knowledge? What kinds of questions take on children's perspectives? What kinds of questions may underscore children's developmental competence? The following discussion demonstrates that Chinese immigrant parents used questions to support their children's thinking and Chinese language in use within the child's ZPD.

This issue was raised in Chapter 7. In Yi's family, her father understood Yi's interest in mixing colours, and then used *known-answer test* questions to support Yi's involvement and teach her about mixing colours at dinner. As discussed in Chapter 7, those known-answer test questions were asked not to receive information, but to offer opportunities for children to think and express their ideas. As a result, Yi explored the concept of mixing colours and practised her Chinese. This type of question was used effectively by taking Yi's perspective, whereby Yi was required to explain, elaborate and strive for an answer. This often "makes a learner integrate and elaborate knowledge in new ways" (Brown & Palincsar, 1989, p.395).

However, *yes/no questions* asked by Lin's mother did not take Lin's perspective and provided her little opportunity to generalize how to bake a cake. The *yes/no questions* included the answer, therefore they did not require new information from others, but

acted as a guide that needed to be followed. This type of question does not expect the other interlocutor's thoughts and ideas. Lin did not have the chance to express her ideas, and positively involve herself in the baking process. Some researchers report that adults' direct instructional talk can have a positive effect on children's language learning during ongoing activities, and support children's engagement in conversation (Burns & Radford, 2008; File, 1994). Nevertheless, direct instructional talk needs to be applied to correspond with children's developmental level. In other words, adults need to use direct instructional talk within children's zone of proximal language development. Parents need to have a good *understanding* of their children. Lin's mother did not understand her ZPD in the baking activity, although Lin had had baking experiences with her. Thus, her motives in baking were not developed, and she simply passively listened to her mother's instruction. The *conflicts* between Lin's motives and her mother's understand of her competency occurred and were dealt with in a negative way. Thus, Lin's baking activity with her mother could not achieve a high quality of social interaction, since the intersubjective qualities of social interaction were not in this case adequate to bring about the necessary "transformation of participation of people engaged in shared endeavors" (Rogoff, 1998, p.690) .

After baking, Lin was interested in the distribution of the cookies. Her father asked her a series of questions which got harder and harder. For example, *how many cookies are on the plate? If Meimei has one cookie, how many cookies will be left? How many people do we have here now? How many cookies can each person eat?* The increasingly difficult questions created a problematic situation in which Lin could explore mathematical knowledge by understanding the questions in Chinese and expressing her thoughts. She was very interested in the task because she contributed to the cookie baking and had had experience in distributing the objects. Her father applied the questions to support her motives of developing scientific concepts. Then, she was able to express her ideas to practice her Chinese in her scientific thinking.

Comparing Lin's mother and father's questions within the context of the baking activity, it can be seen that Lin's motives were very important in her engagement in the baking practice. Fleer (2012) argues that motives are "something generated through observing or participating in an activity, rather than as something that comes solely from within

(p.91). In the case example of Lin's restaurant play, her father asked her questions in different ways to encourage her to explore Chinese cooking. We can notice that Lin's motive had been detected by her father as is evident in the way her father engaged in the play by questioning and negotiating. Her father made the connection with her previous experience of cooking and baking. In other words, Lin's perspective needed to be taken into account to develop her motives in play and Chinese language practice. It is possible to develop children's play and learning motives when the real connection between the child and the social environment has been built (Fleer, 2012). Compared to her father's questions, Lin's mother did not bring Lin's past experience of baking to their activity. What can be learned from this is that, in the engagement in children's activity, children's motives must be actively considered by their parents, which can be reflected by "two-way" engagement in the activity. However, having a sound understanding of the child is most important in the support of children's motive development. The family pedagogy is shown in the following map in Figure 9.7.2.
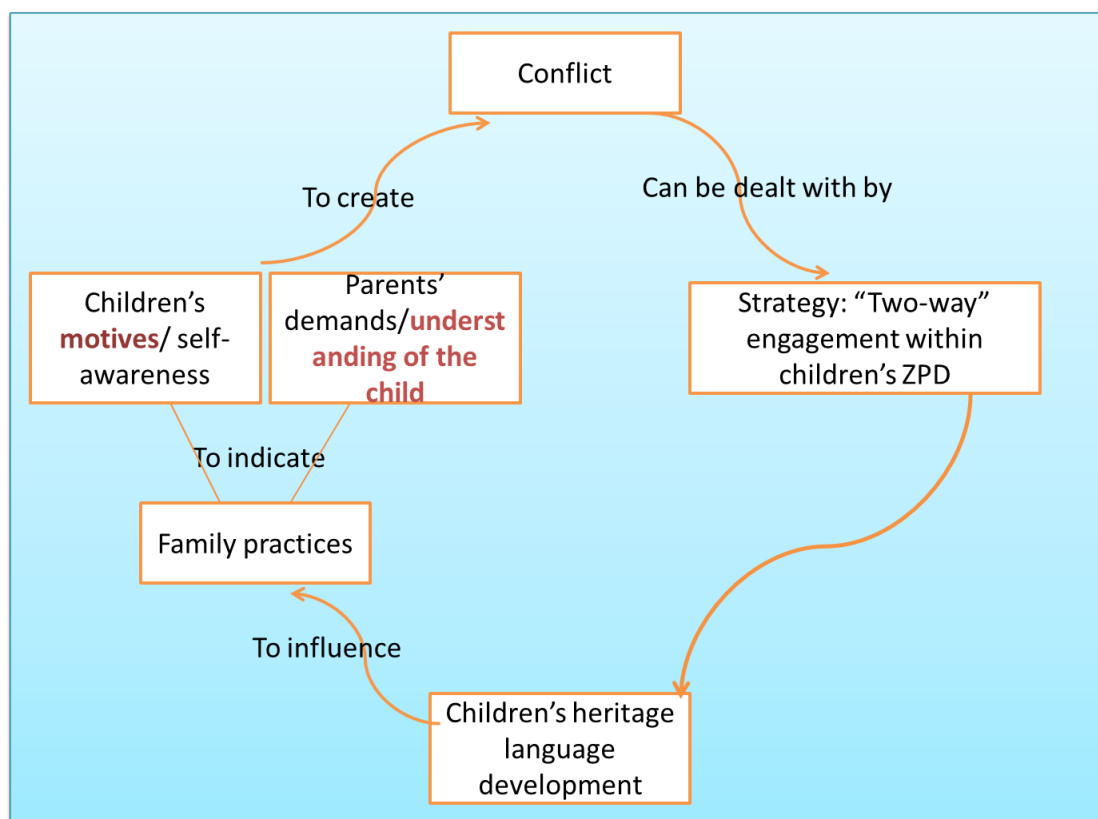
Figure 9.7.2. **Family pedagogy: Children's motives and parents' understanding of the child.**

284

To summarise, parents may use questions as tools to support their children's thinking and language learning. The most important aspect is that the questions asked build a motivational situation to allow the child to positively participate in problem-solving. "Two-way" engagement makes this possible. The question must take on the child's perspective and support the development of their motives. Vygotsky (1966) argues that

> without a consideration of the child's needs, inclinations, incentives, and motives to act– as research has demonstrated– there will never be any advance from one stage to the next…It seems that every advance from one stage to another is connected with an abrupt change in motives and incentives to act. (p.7)

Parents need to understand children's motives and ZPD when asking questions in conversation, so that appropriate support can be offered to encourage their children's engagement in shared thinking within the family practice. Through this "two-way" engagement, children's motives and parents' perspectives have been achieved. This echoes Fleer's (2012) argument that "the view of motives foregrounds the institutional perspective, but also the child's perspective" (p.92). Children's desires and initiation encourage parents' engagement in their play; vice versa, parents' demands and support motive children's engagement. Thus, "Two-way" engagement can be seen as "two-way" motiveness between parents and children within family everyday practices. The interaction between parents and children shapes a virtuous cycle in motivating parents' support and children's motives, thus supporting children's heritage language development through everyday life.

9.4.6 Introducing the heritage language at an early age.

Chapter 8 analyses the storytelling and shared book reading practices across three families. The findings demonstrate that the current level of heritage language shapes how storytelling in Chinese can take place. When parents read a story to their children they have to rely on what is visible if the child does not have a lot of language and vocabulary. For example, Wen's bedtime story shows that his mother only read stories to him by reading the written text, as Wen and his siblings did not have a lot of Chinese vocabulary. On the one hand, his mother took the child's perspective by not deviating

from the story and keeping a very narrow focus, in order to support Wen's understanding. On the other hand, Wen was not able to bring his past experiences to the story context.

However, in Lin's shared book reading with her father, the storybook was understood in a very broad way. Lin was able to connect her previous experience (i.e., her warm jumper) to the reading context; her father brought a mathematics task (i.e., counting the legs of the dog and the number of the geese) to the reading process; Lin recalled previous knowledge to interpret new information (e.g., rabbits like carrots too), and; her father introduced more knowledge in terms of Lin's understanding (e.g., the bull and sheep don't like meat).

Therefore, comparing these two families' reading practices, it can be concluded that the more the child can imagine and create using their language, the richer the child's language becomes. When children generalize stories, they may develop their language in use because they are using language in a new and creative way in terms of their own understanding. Through parents' instruction and practice in the home, the child's heritage language becomes "visible and he/she develops "mastery" (i.e., intentional and conscious use) of its grammatical and phonological properties", thus making it a thinking tool to generalize concepts in daily life (Lantolf, 2003, p.367).
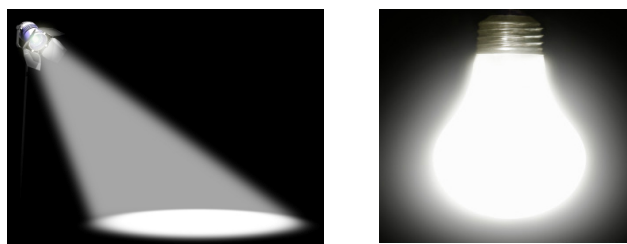
Figure 9.6. "Spotlight" readers   &   "Overhead light" readers.

Reading in early language development is like a "spotlight". Parents have to keep it very focused around what is visible to their children (as in Wen's case) who do not have much Chinese language. But, for children who have more language, the "spotlight" broadens, spreading out and becoming an "overhead light". This allows for more imagination and creativity. In other words, the child can bring their perspective by

thinking about the past and the future of objects. Based on this, children do not have to stay in a fixed position, but can start to move out of the narrow focus. They can change the meaning of the object, which means that they are able to borrow symbolic objects instead of real objects. As an example, during Lin's cooking role-play with her father in Chapter 6, under her father's support Lin borrowed the *tanbark* to imagine *sandwich, juice, rice, vegetables* and *meat* in the play. That is very difficult to do if a child does not have a lot of language knowledge or ability. The child has to stay focused on the visible things in the activity. This means that they have to have real representations of the objects in his [her] visual/optical field, because they do not have enough heritage language to express imaginative ideas and give new meanings to the objects in their sense field (imagination situation). "Language makes men free" (Vygotsky, 2005, p.92). Language makes human beings free to think and communicate ideas. This is demonstrated by Wen's mother's comment that the children loved to ask questions when they read English stories, unlike when they read Chinese storybooks. Wen had enough English words to express his ideas to connect his past experience to new situations through his imagination. Thus, it could be said that the children did not have a wide enough repertoire of their heritage language (Chinese) to explore the content of the Chinese storybooks. This reminds us that language is a tool of thinking (Vygotsky, 1987d).

Taking the parents' perspective, the parents also felt it was difficult when they started to introduce and use their heritage language at home to communicate with their children when they were older. As discussed in Chapter 5, Wen's parents felt that it was hard to teach them in Chinese. For instance, they tried unsuccessfully to tell their children in Chinese that they were behaving improperly. Wen's parents started to introduce Chinese language to their children although it was a little bit late. The conflicts between parents' demands and children's motives occurred. We have to think of this *conflict* in a dialectic way. On the one hand, the conflict can still be considered a good opportunity for children to experience their heritage language. The crises in children's lives are very important to provide the dynamics for the child's development (Fleer, 2010; Hedegaard, 2009). The conflict provided Wen and his siblings with the opportunity to experience Mandarin at home and create the possibilities for their Mandarin language development.

On the other hand, this kind of situation did not happen in Yi and Lin's families. Furthermore, the only strategy that parents can use to support their children's engagement is explanatory talk, as the children do not have a lot of Chinese language with which to communicate and negotiate. Wen's storytelling is an example in point; his mother asked him indicative questions to request a simple answer in order to help him understand the story. Similarly, during his gardening activity, the interaction was quite structured. His father had to keep the language very simple and use repeated Chinese words to support his understanding of how to use the tools to cut the grass. Wen could only passively join the activity. It can be seen that because Wen did not have a lot of Chinese language competence, all the Chinese language interactions Wen and his parents took part in were very narrow and focused. Although Wen's father dealt with this conflict in a positive way, the context was still very limiting to Wen's generalisation of the meanings of the gardening words due to his limited language abilities. Wen was not able to think using Chinese, which is different from Lin and Yi. The conversation was limited to reference to the visual objects. Thus, the language used in this context shows a restriction in developing children's imagination, creativity, and motives. However, Lin and Yi's families showed a different kind of interaction, in which their parents applied exploratory talk to support their thinking. The interaction between parent and child was very open and flexible. Lin and Yi expressed their initiative, ideas and interests in conversation. Their parents applied exploratory talk to support their development of motives in the activities and to help them achieve self-awareness of their new knowledge. In Lin's market play with her father, she initiated the activity, as she was very interested in her new toy cash register. Her father responded to her interest by pretending to be her customer at the market. Her father supported her play-based exploration of a selling and buying situation.

The study suggests that the more language competence children have, the richer the interaction they experience, and the greater the connection to children's motives and interests. From the findings across the three families' practices, it can be argued that children need to start using their heritage language very early. Introducing the heritage language early offers the child psychological situations that are more conducive to psychological development. This in turn makes interaction more positive and more

connected with the child's motives. If children start to use their heritage language later on, the child is already confident in English and gets used to communicating in English. Parents may feel it is much harder and more challenging to support their children's heritage language development at home when their children get older. Furthermore, linguistic research on bilingual children also suggests that the second language or heritage language is learned easier and stronger, if it is introduced early in childhood rather than relatively late in childhood (Kim, 2011; Smolucha, 1989; Trawick-Smith & Dziurgot, 2010). Also, this research compared three immigrant families regarding children's heritage language development from a cultural-historical perspective, which further verifies the value of children being introduced to the heritage language as early as possible. Therefore, parents need to take the children's perspective to support their heritage language learning as early as possible through their everyday practices. This is also related to the conflicts parents deal with when they interact with their children in Chinese.

9.4.7 Achieving intersubjectivity within family practice.

Hedegaard (2005; Hedegaard & Chaiklin, 2005) drew upon Vygotsky's theories of everyday concepts and scientific concepts, to develop a teaching method called "a double move", which was explained using a teaching experiment in a Danish elementary school. The "double move" in teaching engages children's knowledge and perceptions of everyday concepts in order to help them understand school subject knowledge/scientific concepts, where instruction begins with "specific concrete examples and the children's daily-life conceptions [progressing] to general conceptualizing and modelling of the phenomena studied" (Hedegaard, 2005, p.233).

For example, a teacher might try to introduce the new concept of temperature, whereby temperature can affect the structure of objects such as water. In daily life, children are exposed to water freezing into ice and ice melting into water. So, the teacher can apply this everyday experience/concept when supporting children's investigation of temperature (scientific concept). Therefore, the teacher's pedagogy is influenced by children's pre-established knowledge in order to develop their motivation in the subject-matter knowledge, which then guides the children to generalise scientific knowledge.

Expanding upon Hegegaard's teaching method, Fleer (2010) gives a nice example of conceptual framing by a preschool teacher to develop a pedagogical model for conceptual and contextual intersubjectivity in play-based programs for preschool children. In this model, three key points are analysed.

The first point is that the teacher considers "play as a pedagogical tool for exploring or introducing particular concepts" (p.15); then, it is important for the teacher to "consider the everyday concepts that children have developed or are currently imitating through their play and to think about the scientific concepts they want to introduce" (p.15). In other words, the teacher needs to find out the relationship between the everyday concepts children have developed and the scientific concepts they would like to introduce. Finally, the teacher can "consider what might be a motivating activity to conceptually engage the children to explore the scientific concept" in everyday concepts (p.15). Consequently, the teacher achieves psychological intersubjectivity with the children and develops a motive for learning concept knowledge in play contexts.

Drawing upon Hedegaard's work and Fleer's model, I would argue the importance of conceptual and contextual intersubjectivity between children and parents in family practice. This is the key insight of children's bilingual heritage language development in everyday practice. In Lin's shared book reading, her father took her perspective and used *exploratory talk* within Lin's ZPD to involve her in active problem formulation and exploration of the "farm" concept in Chinese. The conflict arose here when a language was chosen to read the book by Lin and her father. Lin was interested in reading her new English storybook in English. However, the conflict turned into a positive experience as her father suggested reading the English storybook in Chinese together. In this context, Lin was allowed to bring her own thinking to the book reading. She asked questions, connected a past experience in her daily life and recalled a memory. "Two-way" engagement took place within their shared-book reading activity, whereby they both contributed to the reading context and transformation of agricultural concepts. Lin generalised the understanding of "farm" animals and internalized Chinese words through the everyday context (storytelling). In this theorization of the event, we note that Lin and her father enacted a shared thinking practice because they achieved conceptual and contextual intersubjectivity. Lin was made consciously aware of agricultural knowledge.

However, Lin's mother conducted a baking activity with Lin, in which the mother continually asked her daughter yes/no questions leading Lin to the correct answer, in order to introduce cooking concepts in Chinese. This was a very forced, highly structured sort of interaction, which did not include Lin's perspective. On the one hand, Lin passively said "yes" or nodded her head to express agreement. On the other hand, Lin explicitly indicated her desire to contribute more to the activity by saying *"I can stir it (flour). I can stir it"*; *"I want to help you"*; *"Mum, I can stir in the egg"*; and *"Mum, I want to bake a butterfly cookie."* There was a conflict between Lin's mother's understanding of her capabilities and Lin's own motives and self-awareness. Her mother did not support Lin's development within her ZPD. Therefore, Lin was not actively involved in the baking activity, and consequently, Lin and her mother did not achieve conceptual and contextual intersubjectivity.

Conflict also arose between the context that the parents created for practising and learning their heritage language and the development of the children's motives. In a linguistically narrow context, there is not much motivation for Wen and his siblings to use Chinese language. In Wen's gardening vignette, his father had to use repetition of words because of Wen's Chinese language competence. Wen's father created an everyday life context – gardening – in order to introduce gardening tools in Chinese to Wen. In this context, communication was very simple because the child did not have a lot of Chinese language. Wen's father was able to engage Wen in the activity by using simple and repeated words that were within his zone of proximal Chinese language development, and by building upon his motivation. Although their Chinese language interaction showed a very narrow input, both his father and Wen still achieved conceptual and contextual intersubjectivity in the gardening activity. Through interactions with his father, Wen learned how to cut the small grass between the bricks, and they both shared their understanding of the gardening language in Chinese.

To sum up, family pedagogy can be applied to everyday family practice in order to support children's conceptual knowledge and heritage language development, which is shown in the following concept map (Figure 9.7).
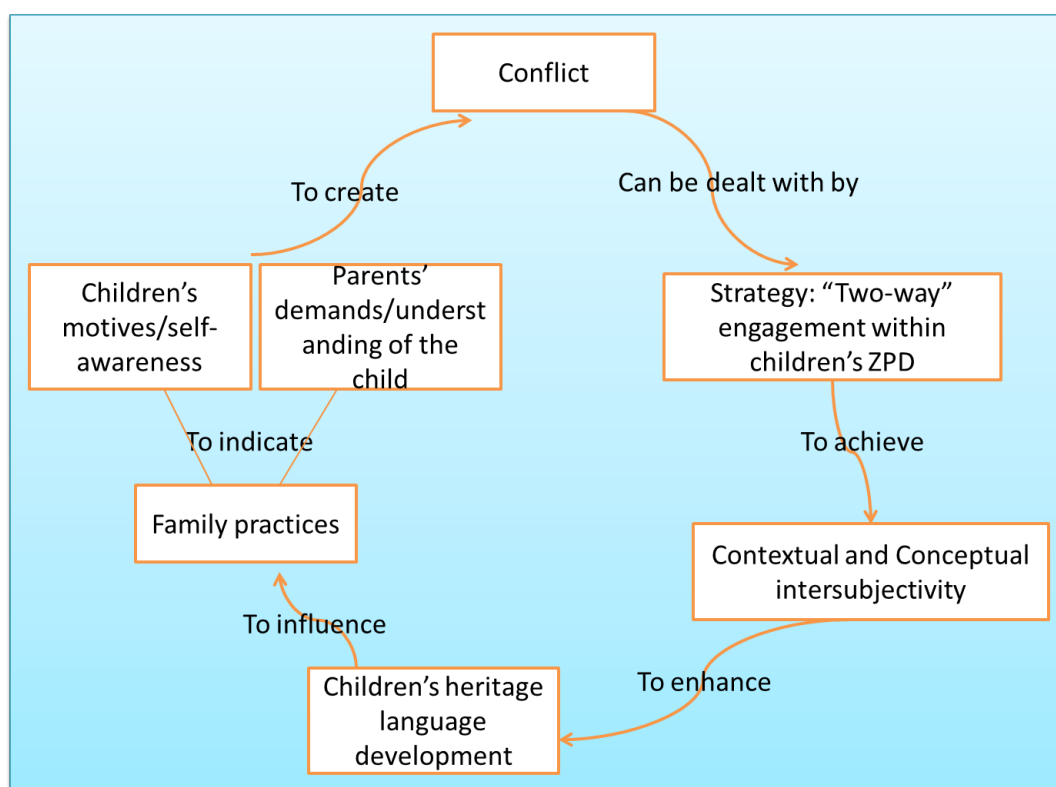
Figure 9.7. **A model of the family pedagogical principle: "Two-way" engagement within children's ZPD.**

In respect of Lin's cooking role-play activity in the park, within the family practice (Lin's role play), children's motives and self-awareness of their abilities (Lin's desire to be a restaurant owner) and parents' demands (Lin's father's demand to communicate in Chinese) and understanding of their child's ZPD all converge to create conflicts. By taking a positive approach to these conflicts and by taking their children's perspective (taking into account Lin's ideas on cooking such as "sandwich", "juice", "cooking vegetables", etc.), parents can then establish a "two-way" engagement. They can do this by considering children's ZPD (Lin's zone of proximal Chinese language development), in order to share their perspectives and achieve contextual and conceptual intersubjectivity. Consequently, concept knowledge (Chinese cooking concepts) is generalised and children's language (Chinese vocabulary such as *straw, stove,* and *juice* and grammar in use) is enhanced, which then goes on to inform future family practice.

What is more, the examples of the three families' practices suggest that a variety of family pedagogies can be used in everyday life to facilitate children's heritage language

development. The three participant families' pedagogies and strategies have been shown in the previous Table 9.1 above (Three families' pedagogy in everyday family practice).

9.5 Family Pedagogical Outcomes: "Two-Way" Engagement Within Children's ZPD

The findings show that by drawing upon Vygotsky's cultural-historical theory, a wholeness approach using dialectical analytical tools can be applied to examine children's everyday family practices in Chinese-Australian immigrant families today from societal, institutional and individual perspectives. This study contributes to cultural-historical theory, language education and family practice.

It is argued throughout the dissertation that children's bilingual heritage language development is a psychological process from the interpsychological (social) category to the intrapsychological (individual) category, and that in this particular process social communication and interaction with parents plays an important part in supporting children's heritage language development. How do families' everyday practices support preschoolers' bilingual heritage language development in the home context? This is one of the challenges that Chinese immigrant parents face when raising a child in Australia. Parents play an important role in supporting their child's experience of a Chinese environment at home. In this study, the findings offer new insights into how parents can contribute to children's everyday practices through pedagogical strategies. Furthermore, this is not just a practical issue, but also a theoretical matter.

Unlike previous linguistic approaches to bilingual language development (see literature review Chapter 2), this study takes a new direction in research by focusing on the importance of parents' strategies in everyday family practices in children's bilingual heritage language development through a cultural-historical framework. This study focused on the role of imagination in play (see Chapter 6), interaction in everyday household activities (see Chapter 7), and conversation in shared book reading or storytelling (see Chapter 8) in bilingual heritage language development. Utilising this new family-oriented pedagogical model drawing upon cultural-historical theory, it has been possible to demonstrate key aspects of development, for which contemporary

linguistic theory does not provide a clear theoretical model. This study enriches cultural-historical theories on language and thinking in children's heritage language development, and expands upon empirical studies on immigrant families and language studies literature.

First of all, this study provides a theorized account of a dynamic transformation model of children's bilingual heritage language development through their everyday life (See Figure 9.2). Then, within this transformation model, this study focuses on how these strategies are also combined to produce pedagogical experiences that aim to support parents' understanding of the ways to communicate effectively and support children's heritage language development in everyday family practices. The family pedagogical principle that has been put forward is "two-way" engagement within children's ZPD. "Two-way" engagement takes into account both parents' demands and children's motives when they interact with each other within everyday family practices showing a shared meaning of the words and activities. The concept of "two-way" engagement provides guidelines for pedagogical strategies, which is one of the important and meaningful findings generated from this research. Vygotsky (1998g) points out that development is a continuous process that "is characterized by a unity of material and mental aspects, a unity of the social and the personal" (p. 190). The concept of "two-way" engagement in this dissertation emphasizes the relations between parents and children supporting children's heritage language development, which appears to be a unity of social interaction with parents and children's individual awareness and interpretation. "Two-way" engagement conceptualizes the dynamic transformation of children's heritage language development that happens between immigrant parents and children through their everyday family practices and activities. During the dynamic transformation, conflicts arise when the interaction happens between parents and children. The "two-way" engagement principle offers five strategies (see below) for parents to deal in an effective way with the conflicts between their demands and children's self-awareness, and between their understanding of children's capacity and children's motives.

1. Parents consider play as a pedagogical tool to support their children's heritage language development.

2. Parents set up a rich heritage language environment in which children can develop their motives and experience heritage language practice.

3. Parents take different subject positions (from each other and themselves at different times) to communicate with their children within their ZPD. These should be geared to providing children with the opportunity to initiate activities, negotiate what to do, and be free to express their ideas, thus practising their heritage language.

4. Parents introduce their heritage language to children at an early age according to the needs of the child's heritage language development, so children may participate in rich communicative interactions.

5. Parents take children's perspectives to achieve contextual and conceptual intersubjectivity within everyday practices that enhance children's heritage language vocabulary and help them generalise everyday concepts.

The main findings can be represented briefly by the following Figure 9.8

Figure 9.8. **Family pedagogical strategies.**

The research of three participant families with regard to children's bilingual heritage language development shows that the interaction between parents and their children creates conflicts which provide parents opportunities to support children's heritage language development by using "two-way" engagement involving specific strategies.

Thus, the findings offer new insights into when and how parents should introduce their heritage language to children in their everyday context.

In particular, this study extends the knowledge about Chinese immigrant parents' beliefs and child rearing practice in Australia. The three research families' practices clearly indicate parents' values and beliefs in supporting their children's bilingual heritage language development in different ways. Apart from this, this study indicates the way children contribute to heritage language development through parents' interaction and the situation of their heritage language development in everyday home contexts, which has been ignored in the contemporary empirical studies focusing on the effects of heritage language schools (Doerr & Lee, 2009; Kemppainen, et al., 2008; Kim, 2011; Lo, 2009; Pu, 2010; Wu, Palmer, & Field, 2011). From this point of view, this study enhances the current literacy of bilingual heritage language study and expands the heritage language study including the investigation of the influences of everyday family practices on young children's heritage language practices.

9.6 Extending the Pedagogical Model to the Classroom Context

The findings regarding family pedagogical strategies can also be extended to apply to communication and engagement between teachers and children in general school settings. The recommendations to assist parents in supporting their children's heritage language development can be extended for use in school contexts, especially in play activity. This thesis has built up different models for bilingual heritage language development in different everyday family activities. As discussed in the theoretical chapter (3), Vygotsky (1966) argues that play is a leading activity for preschoolers. The pedagogical model in play activity can be applied in preschool classrooms. Preschool teachers can support their children in development of motives in play within the child's ZPD. The conflicts/contradictions between children's motives and teachers' demands of children's development cannot be ignored. As discussed early, the developmental process of children occurs when children interact with their teachers or other more capable peers in the class. The conflicts may not be major, but can still provide possibilities for children's development and opportunities for the teacher to guide their children within their ZPD.

"Two-way" engagement is a necessary principle for the teacher to interact with their children. This principle helps the teacher and students achieve contextual and conceptual intersubjectivity. It is more like the interaction between Lin's father and Lin in the play activity at the park. Lin's father continually supported her Chinese language development at a high level of engagement. For example, when her father wanted to explain to her the question "how much is it?" in Chinese, he did not choose to translate it into English, but explained to her a buying and selling situation, which helped her imagine such a social reality. She was then able to answer this "how much" question. Again, when Lin was not able to express "hot" and "cold" water in Chinese, her father introduced a real situation that compared their house's tap water to the one in their imagined play situation to explain "hot" and "cold" in Chinese. She could easily understand what her father explained and became aware of the new concepts. It can be seen that Lin's father introduced new concepts to Lin in the play activity contextually. Meanwhile, Lin was offered a chance to negotiate with her father. Both of them achieved intersubjectivity. "Two-way" engagement has been elucidated through this play episode. On the one hand, Lin's father considered the motives of Lin in the play activity. On the other hand, Lin initiated the imagined play. Such a "two-way" engagement can be utilized in play activities in early childhood class settings.

Alongside applying the "two-way" engagement principle in the early childhood formal preschool settings, the family pedagogical strategies in supporting children's heritage language development can also be extended to children's general language development in the home context. For example, parents can use the subject positioning communicative strategy to position themselves in order to motive children's engagement in their conversation and interaction, thus, children are able to develop their language development collectively with their parents. The "two-way" engagement pedagogical principle can also be applied in supporting children's language development in general.

Taken together, the findings of the study provide a new model of bilingual heritage language development for families, offering new insights into successful family pedagogy for Chinese language development and contributing to new understandings that may be applied to the education of children in early childhood attending weekend heritage language school in Australia.

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Appendix A- Explanatory statement for families

<Monash University Letterhead>

Explanatory Statement

Research project- A cultural-historical study of childhood and children's development in Australia

March 2009

Original Explanatory Statement (amendment)

Dear Parent/Guardian,

I am a PhD student at Monash University. I am doing research under the supervision of Professor Marilyn Fleer in the Department of Education We are writing to you regarding a project that we are carrying out in your region with families who have a preschool aged child attending Chinese school or other bilingual playschool.

The purpose of the project is to learn more about how children develop, particularly, how families are involved in their children's acquisition of Mandarin. We will:

Give your children a disposable camera (12 photos) and ask them to photograph favourite family activities and important activities that you do together (once during the project). Develop the photographs and interview your children about their photographs. This should only take thirty minutes. They will be asked:

- To explain their photo (what are they doing or others are doing in the photo)
- Whether it was a favourite or important activity (or both)
- Why they took the photo

One week after your child has taken their photographs and been interviewed, the whole family will be given a disposable camera (24 photos) and asked to photograph family activities that you believe are important for children's learning and for growing up in your country. The photographs will be developed and put into a photo album for you to keep. We will then ask you:

- To explain the photos (what are they doing)
- Why you took the photo

- What family interactions you believe are important, and why
- What family practices you believe are important for learning Mandarin, and how you do this in your family
- What things you think are important for children to learn Mandarin

The interview should only take one hour. All members of the family are welcome to contribute to this discussion.

We would also like to observe your children at home playing or doing some of these important family activities (or similar ones). We will phone and arrange a time that suits you and your family. We think we will only be in your home (or place you nominate) for one or two hours. We will put together a photo album with comments about your children and give that to you to keep. We will keep a copy too, but only of the photos that you agree can be shown or used in presentations and publications.

The study will involve a total of two interviews, three observations at home and three observations at school.

At the end of the research we will prepare a summary of everything we have learned from this project and put this into a small colourful booklet (and on CD or DVD format). It will have photos and comments that all the participating families have agreed are fine to share more broadly.

To assist us with recording all the valuable data we may audio-tape or video tape small segments to help us (e.g., during interview or when we observe your child). We will always ask your approval for this to happen in every instance we make contact with you. You can withdraw at any time from the study without penalty or indicate at any stage if you prefer us to simply keep written notes rather than audio or visual recording. Any visual images we gather will be shown to you for your final approval.

We will ensure that all the data that we gather is stored safely and securely in line with the University Code of Conduct for the Responsible Practice of Research in relation to Data Storage and Retention. This states that all data (including electronic data) must be

recorded in a durable and appropriately referenced form. Data management should comply with relevant privacy protocols, such as the Australian Standard of personal privacy protection (in health care systems, see Australian Standard AS 4400-1995).

If you have any queries or would like to be informed of the aggregate research findings please contact me on ████████ or by Email at █████████████████ and you can contact my supervisor, Prof. Marilyn Fleer on ████████ or by email at ███████████████████████

You can complain about the study if you don't like something about it. To complain about the study, you can write, email, fax or phone. You can direct your concerns to the secretary of the Human Ethics Committee and tell him or her that the number of the project is 2006/1033. The details are:

The Secretary (20006/1033)
The Standing Committee on Ethics in Research Involving Humans
PO Box No 3A
Monash University VIC 3800
Telephone +61 3 9905 2052 Fax +61 3 9905 1420
Email: SCERH@adm.monash.edu.au

Thank you for your time and for considering involvement in our study.

Yours sincerely,

████████████   ████████
                          Liang Li and Professor Marilyn Fleer

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Appendix B- Consent form from parents

INFORMED CONSENT FORM FOR PARENTS/GUARDIANS
OF PROJECT PARTICIPANTS

Project Number: 2006/1033 A study of childhood and children's development

I agree that my child may take part in the above named project. The project has been explained to me and I have read the Explanatory Statement, which I have shared with my child.

I understand that in agreeing to take part in this project, that I am willing:

- For my child to be video observed at school/preschool/childcare/Chinese school (as relevant)

Upon completion of this project, the researcher would like to use the words and images collected from this project for educational purposes (eg journal articles) including presentations to peers at conferences or to students in lectures.

I give permission for the words and images of my child to be used for educational purposes.

Child's name …………………..…………………………………………………………

………………………………………………………………...……………………………………
……………..

Parents'/Guardians'
names/ ……………………………………………………………………

Signature of Parent/Legal
Representative:…………………………………………………………………………..

Date:……………………………………………………..

The consent form has been translated by National Accreditation Authority for Translators and Interpreter (NATTI) translator.

关于同意参与调查研究的家长确认信

课题号码：**2006/1033** 儿童发展研究____家庭怎样帮助小朋友学习中文

我同意参加以上莫纳什大学的调查研究课题: 2006/1033 家庭怎样帮助小朋友学习中文; 我已经阅读全部调查信息，并完全理解所参加的此调查项目;

我承诺:

我同意研究者对我的孩子在中文学校和家里进行摄像观察。

我同意关于我孩子的研究数据用于教育目的, 如在相关学术论文，期刊，会议，专业杂志或者教学课堂中使用。

孩子的姓名：…………………………………………………………………………………

…………………………………………………………..…………………………………………………..

家长/监护人的名字：…………………………………………………………………………

家长/监护人签名…………………………………………………………………………..

日期:…………………………………………………………..

Appendix C- The first dialogue-based family interview questions and topics

Discussion of photographs- individual family

These questions will be asked of the participants regarding their photos they took in the first two weeks of the fieldwork.

What is happening in this photo?

Who is involved in this activity?

Where and when was this photo taken?

Who took this photo?

Why did you take this photo?

Do you think this activity supports children's Mandarin development?

Which language is used in the activity?

Which language do you use in everyday home contexts?

What family interactions do you believe are important, and why?

What family practices do you believe are important for learning Mandarin, and how you do this in your family?

What things do you think are important for children to learn Mandarin?

Appendix D- An example of video data Common-sense interpretation

Video observation protocol 01/10/09 Lin's family at the living room 30mins	Common-sense interpretation
Lin selected an English story book and started to read in English after morning tea. She pointed to the pictures in the book and said the names of the objects in the picture in English. Father: *你能用中文读吗？<Can you read it in Chinese?>* [Yet she continued reading it in English. Her father asked her again but Lin still kept reading in English.] Father: *那我们一起读，好不好？<Let us read this storybook. Is that okay?>* *Father: 你看这本书，你看到什么？你看这本书你看到什么？<Look, what can you see from this book cover?>* [Lin looked at the **picture** on the book cover.] *Father: 你能看到什么？<What can you see? ...What can you see from this picture?>* [Father pointed to the cover page] *Lin: 嗯，猫咪。<Eh, "Miao Mi">.* [Baby cat in Chinese] *Father: 你看到猫咪啊。那你还有看到什么？只有猫咪？<You saw "Mao ME." Is there only "Mao Me" on the cover? What else can you see?>* [Lin pointed to the picture and looked at it again for a while.] … *Lin: 看，妹妹在闹。<Look, sister is bothering us.>* *[Her sister, Meimei was trying to turn to the next page]*	This part shows the demands of Lin's father in reading Chinese and Lin's interests in reading new storybook. Lin stopped to read this English storybook with her father in Chinese. They started to read the story together in Chinese through observing **the picture**. The book was in English. But, they read it in Chinese. Also, her sister, Meimei was opening the other book on her own next to Lin. Meimei was there, listening and observing her father and sister's reading and **the picture**.

Father: 妹妹看，跟姐姐一起看这个。看这个图。小朋友在做什么？ *<Meimei, Look at this picture. Okay. Let us look at this picture with your sister. What is the child doing in the picture?>* *Lin:* 她在喂那个，那个，那个，**Rooster**. *<She is feeding the um, um…**Rooster**.>* [Gong Ji means Rooster in Chinese.] *Father:* 她在喂鸡哦！Rooster 是公鸡。*<She is feeding the rooster. Rooster is Gong Ji>* [Meimei was looking at the other page and pointed to the **picture** of the chicken, and said] *Meimei:* 鸡 (Ji)。*<Chicken. >* …	Meimei found the **chicken picture** as well. She pointed to it and said "Ji (Chicken)" in Chinese. It is worth mentioning that Ji means "Chicken" and Gong ji Means "Rooster" in Chinese. Chicken (Ji) just needs the addition of one more word, Gong, to make Rooster (Gong Ji). Thus, her sister, Meimei easily remembered one word, *Ji*, during the shared book reading process between Lin and her father because of the replicated words.
[Father turned to the next page and pointed to the girl on the book] *Father:* 嗯。她在看什么呢？ *<Yes. What is she looking at?>* [Lin looked at the **picture.**] *Lin:* 她在看那个….那个 **goose**. *<She is looking at the "goose (In English)."* *Father:* **Goose** 就是鹅。 *<**Goose** (In English) is "e "in Chinese.>* *Lin:* 鹅，鹅，鹅。*<e, e, e.>* *Father:* 她走路时有什么动物在跟着她？ *<What animal is following her when she is walking? >* *Lin:* 那个…鹅。*<It is a…"e". >* *Father:* 有几只鹅？ *<How many "e" are following her?>* [Lin moved and sat on the edge of the book and started counting the geese. She looked at the **pictur**e and did not point to count.]	Lin imitated "Goose" in Chinese three times. The shared book reading with her father enhanced her vocabulary. She made a conscious effort to use the Chinese word *Goose* Her father caught every moment when she spoke English, and clarified how Chinese could be used.

Appendix E- An example of situated-practice interpretation of visual data

(Using the same video data as Appendix D)

Situation explanation (Social Situation)	Lin and her father's story telling seems to be reading a story together. Her father and Lin shared their reading through observing the **pictures** on the book rather than reading the written words by her father
***Motives*/Competence**	Lin actively engaged in their book reading, which shows her interest in the storybook. Lin was able to answer her father's **questions** in Chinese most of the time. When she was not able to speak Chinese, she would use English words instead.
***Conflicts & Transition* (Values and Interests)**	Her father wanted her to read the story in Chinese, however, Lin preferred to read it in English. Her father finally requested to read the book together with Lin in Chinese. Her father provided the opportunities to support and motivate Lin's Chinese reading.
Interaction Patterns (Mediation)	Lin's father used **exploratory talk** to engage Lin in this Chinese book reading. This is a shared activity within Lin's zone of proximal language and cognitive development showing adult and child as equal partners and achieving intersubjectivity. Her father mediated Lin's enhancement of Chinese vocabulary such as *goose, rooster, maomi* in Chinese.

	The pictures in the book act as psychological tools to support their shared book reading

Appendix F- An example of thematic interpretation

(Using the same video data as Appendix D & E)

- **The intentional orientation of the researched family**

  The shared book reading shows Lin's father's concern for her Chinese language development in storytelling which echoed her father's point in the videotaped interview that the storytelling is a good tool to support Lin's Chinese practice.

- **The interaction between participation**

  The interaction between Lin and her father shows the way her father positioned himself as partner of Lin in the activity. They shared ideas, thoughts and both contributed to their reading. It is similar to Lin's play activity with her father at the park shown in another video clip.

- **The conflicts and transitions between different participant's intentions in the activity**

  The way her father dealt with the conflicts shows he had a good understanding of Lin's Chinese language competence and her interest in reading the new storybook. Similarly, Lin's play with her father and the conversation after the baking activity also indicate her father dealt with the conflicts at a high level.

- **The strategies the parents apply in the activity**

  "Two-way" communication as a family pedagogy is applied in this storybook reading. Her father not only asked Lin questions, but also responded to Lin's actions and words. Lin also initiated their book

reading. The "two-way" communication has made them achieve the intersubjectivity conceptually and contextually.

- **The conclusion and indications in the activity**

  Linking Lin's shared book reading activity to her own storytelling in another video clip, it is not hard to find out the reason why Lin had the competence to use her own words to read a Chinese storybook although she did not know a lot of Chinese written words. It was the pictures in the book. The pictures mediated her imagination and thinking to support her in making up her own story, which is consistent with the shared book reading practice with her father.