

國立政治大學語言學研究所碩士論文

National Chengchi University

Graduate Institute of Linguistics

Master Thesis

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中文母子對話互動中的母親互動風格與話題延續

Maternal Interactional Styles and Topic Maintenance in Mandarin Mother-child

Conversational Interactions

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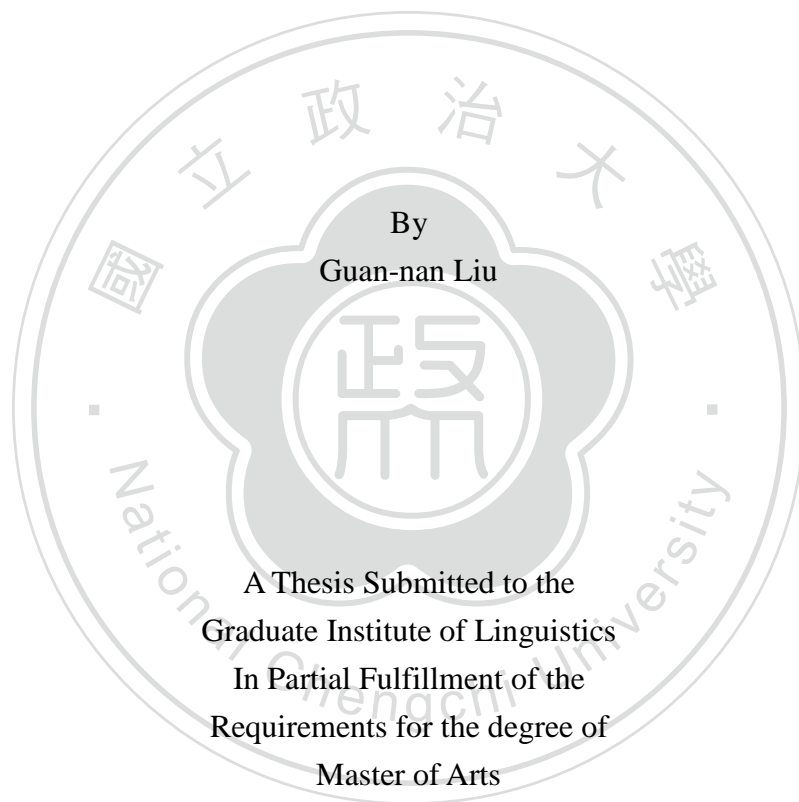
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中華民國九十九年九月

September, 2010

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By
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A Thesis Submitted to the
Graduate Institute of Linguistics
In Partial Fulfillment of the
Requirements for the degree of
Master of Arts

September 2010



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To My Beloved Parents

獻給我親愛的父母



Acknowledgements

總算是完成了論文。當初論文口試結束的時候，我心中百感交集，恰巧又聽到兩位不知名的學妹在討論“冠男學長今年不畢業不行”，我想她們的確是道出了我的心聲。

回想當初如願考進語言所的時候充滿了熱情，也很順利地在碩二修完所有課的時候開始做論文的準備。只是大綱口試通過後，得知需要修改的部分比預期的多時候，心中升起了一股壓力。我也知道我的個性是有一個東西壓著就會想逃避提不起勁的人，而面對寫論文這種需要長期抗戰的挑戰，有很長一段的時間我都不知該如何是好。途中碰到很多困難，也曾經考慮過換題目。雖然我從未放棄，但是一個學期過去了，兩個學期過去了，我的進度依然寥寥無幾。到了最後一年，接踵而來的是當兵與休學的壓力，這一切又讓我更加惶恐。

所幸，這一路上有很多支持我的人，而最要感謝的就是黃瓊之老師。黃老師在許多次我自己都不知所措的面談中給我適度的提醒，並且總是一直鼓勵我要對自己有信心，要加油，要積極，即使我總是常常讓老師擔心。因為老師這些幫忙，一點一滴，我才能在不停懷疑自己是否能畢業的想法中振作起來，在最後的關頭還是告訴自己還有機會，只要肯拼就好。

再來要感謝的是助教惠鈴學姐，常常在黃老師不在或是看到我在偷懶的時候提醒我要加油，並督促我，關心我的進度，也感謝學姐在聽到我可以進行最後的口試以及可以順利畢業的時候，臉上不可思議欣喜萬分的表情。

感謝非常親切的薩文蕙老師跟張麗香老師撥空擔任我的口試委員，在口試的時候也給了我很多寶貴的意見，讓我能夠順利地進行最後的修改。感謝蕭宇超老師、何萬順老師、徐佳慧老師、詹惠珍老師、賴惠玲老師、萬依萍給老師我的關心，以及所有在研究上助益良多的東西。

還要感謝語言所的大家給我的意見跟支持。感謝工作室的大家時常會傾聽我寫論文碰到的困難，也會常常鼓勵我，給我許多意見和幫助。感謝妃容這位戰友，常常提醒我，鼓勵我，並且講一些八卦讓我比較不苦悶。感謝元翔、曉晴、容瑜、禎田，你們都在我寫論文這段熬苦湯的過程給了我很多幫助。

另外，感謝所有在寫論文的過程中，所有曾經給我支持跟鼓勵甚至是罵過我的朋友們，哪怕只是一點點，我心裡都非常感謝。

最後感謝我的父母親對我的支持，包容我這一路的任性與那些負面消極的態度。

僅以此論文，獻給所有看得懂跟看不懂的親朋好友們。

Table of Contents

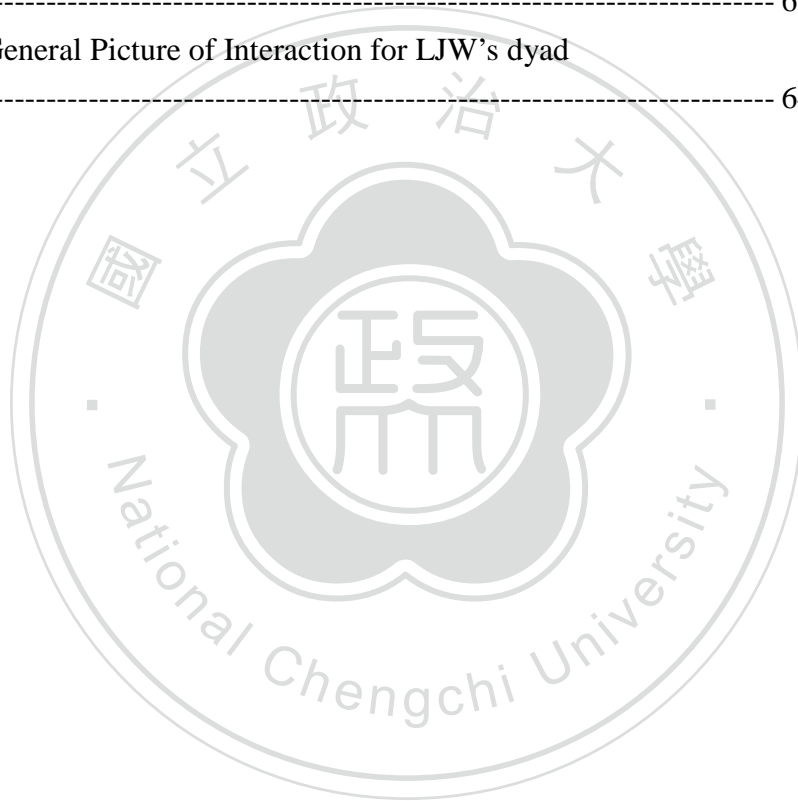
Acknowledgements-----	iv
List of Figures-----	viii
List of Tables-----	ix
Chinese Abstract-----	x
English Abstract-----	xi
Chapter 1 Introduction-----	1
1.1 Motivation-----	3
1.2 Current Study-----	4
Chapter 2 Literature Review-----	6
2.1 Maternal Speech and Child Language Development-----	6
2.2 Maternal Speech Styles-----	8
2.2.1 Previous Studies-----	8
2.2.2 Comparisons of Maternal Speech Styles-----	12
2.3 Discourse Topic and Topic Management-----	14
Chapter 3 Methodology-----	20
3.1 Subject and Data Collection-----	20
3.2 Coding Scheme-----	21
3.2.1 Maternal Interactional Style-----	21
3.2.2 Children’s Topic Maintaining Competence-----	24
3.3 Data Analysis-----	25
3.3.1 Maternal Interactional Style-----	25
3.3.2 Children’s Topic Maintaining Competence-----	26
3.3.3 Mother-child Interaction—Topic Episode-----	26
Chapter 4 Results-----	30
4.1 Maternal Interactional Style-----	30
4.1.1 The Speech Category Level-----	30
4.1.2 The Conversational Parameter Level-----	33
4.1.3 Maternal Interactional Style of the Two Mothers-----	34
4.2 Children’s Topic-maintaining Competence-----	35
4.2.1 Communicative Intents-----	35
4.2.2 Topic Incorporation/Collaboration-----	39
4.2.3 Rate of Topic Change-----	46
4.3 Interaction of Maternal Interactional Styles and Topic Maintenance-----	47
Chapter 5 Discussions-----	58

5.1 Comparisons with Previous Studies-----	58
5.2 General Pictures for the two dyads' Interactions-----	62
Chapter 6 Conclusion -----	65
6.1 Concluding Remarks -----	65
6.2 Limitations and Suggestions -----	66
Appendix-----	68
References -----	69



List of Figures

Figure 1: Preliminary topic episode identification scheme	27
Figure 2: Topic episode identification scheme involving two speakers	28
Figure 3 Speaking turn with topic introducing / reintroducing utterance	29
Figure 4 General Picture of Interaction for LIN's dyad	63
Figure 5 General Picture of Interaction for LJW's dyad	64



List of Tables

Table 1 Comparison of maternal styles in previous studies	13
Table 2 Activity types in the two dyads' conversational interaction	21
Table 3 Results of the speech category level in two mothers' utterances	31
Table 4 Results of two mothers' conversational parameter level	33
Table 5 Results of two children's communicative intents in topic-maintaining utterances	35
Table 6 Results of two children's topic incorporation/collaboration in topic-maintaining utterance	39
Table 7 Results of two children's rate of topic change	46
Table 8 Comparisons of the two Dyads' rate of topic change	53
Table 9 Mothers' speech category in topic-changing utterances that ended topic episodes	54

國立政治大學研究所碩士論文摘要

研究所別：語言學研究所

論文名稱：中文母子對話互動中的母親互動風格與話題延續

指導教授：黃瓊之

研究生：劉冠男

論文提要內容：共一冊，分六章

本研究的目的是為探究中文母子對話中，母親的互動風格與話題延續的關係。研究問題為：(a)本研究中兩位母親的互動風格為何？(b)兩位孩童的話題延續表現有何不同？(c)母親的互動風格與話題延續有怎樣的互動關係？研究語料為兩組親子互動的自然語料，各取三個小時，孩童的年紀約為三歲。研究結果顯示兩位母親的互動風格有所不同，分別屬於命令型和引誘型。而小孩的在話題延續上表現則是相近，大多用回應母親問題的方式來延續話題並且能在不同的情境中提供新資訊。對兩組親子互動的探究顯示命令型的母親比較不會延續對話而經常改變話題，造成較短的話題片斷。引誘型的母親則較注重對話的延續且較少改變話題，造成較長的話題片斷。

Abstract

The purpose of the study is to investigate the interaction of the maternal interactional styles and topic maintenance in Mandarin mother-child conversational interaction.

There are three research questions: (a) What are the mothers' interactional styles in the current case? (b) What are the differences among children's competences of topic maintenance? (c) How do the maternal interaction styles interact with topic maintenance in the conversational interactions? Naturally occurring conversations of two dyads' conversational interactions were adopted as the data and analyzed. Results suggested that while the two mothers differed in terms of their interactional styles, the two children showed nearly equal sophistication in terms of their topic-maintaining competences. Examinations of the two dyads' interactions also revealed that the directive mother was less interested in maintaining the conversations, changed topics more frequently, and maintained discourse topics for less turns. The conversation-eliciting mother paid more attention on maintaining of the conversations, change topics less frequently, and maintained discourse topics for much more turns.

Chapter 1

Introduction

Being a primary caregiver, the mother plays a significant role in the child's language development (Pine, 1994). In terms of child language acquisition, mother's language use is of great concern, especially how mothers modify their language uses to compensate for children's immature linguistic capacity (Pine, 1994). However, the question as to whether child-directed speech (CDS) is necessary for language acquisition has not come to a full agreement among researchers, e.g., CDS is not adopted in some South- Africa families, where children seem having no difficulties acquiring language just as those raised in environments or cultures with CDS (Lieven, 1994). Nevertheless, plenty of studies still suggest that maternal language inputs have great influence on children's language development and deserving close investigations (Newport, Gleitman & Gleitman, 1977; Snow, 1982; McDonald & Pien, 1982; Olsen-Fulero, 1982; Hoff-Ginsberg, 1987).

Individual differences among children who acquire language have been well recognized in studies within the field of child language acquisition. In addition to individual differences among children, previous studies also revealed that different maternal interactional styles are distinguishable among mother-child interaction (Nelson , 1973; Newport, Gleitman & Gleitman, 1977; McDonald & Pien, 1982; Olsen-Fulero, 1982; Hoff-Ginsberg, 1987; Lin, 2006).

Nelson (1973) is the very first researcher who studied mother's conversational behaviors and showed that distinct maternal styles could be distinguished by means of variables such as syntactic and semantic features. The most significant contribution is that he found that some characteristics of maternal speech could facilitate or inhibit children's

language development. Nelson's study was followed by many subsequent studies, e.g., Newport, Gleitman & Gleitman (1977), McDonald & Pien (1982), Olsen-Fulero (1982), and Hoff-Ginsberg (1987). They examined maternal conversational style in terms of both structural and functional features and looked for characteristics that are related to child's language development, including grammatical development, e.g., acquisition of certain linguistic forms, and pragmatic development, e.g., acquiring communicative capacities such as conversational exchange and topic management. Nevertheless, in studies of maternal speech styles where topic maintenance was investigated (McDonald & Pien, 1982; Olsen-Fulero, 1982), it was merely treated as one of the variables which might help differentiate distinct maternal interactional styles. In sum, the interaction of maternal speech style and topic maintenance didn't receive explicit examination.

In spite of the various definitions of the term *topic* within distinct frameworks, topic refers to *discourse topic* in our study. A discourse topic is the proposition (or set of propositions) about which the speaker is either providing or requesting new information (Keenan & Schieffelin, 1983). As for *topic management*, it includes the ability to initiate and maintain discourse topic in conversation.

In research of the acquisition of topic management, not only children's but also parents' pragmatic competences have been investigated in interactional contexts (Keenan & Schieffelin, 1983; Wanska & Bedrosian, 1986; Huang, 2004). These studies are concerned with the model as to how a discourse topic is established through exchanging turns in conversations, the types of discourse topic discussed, or the participants' communicative intents, by means of investigations into topic-initiating and topic-maintaining utterances. Although the aims pursued and methodologies adopted vary

in these studies, results of all these studies suggest that parents' language inputs have great influence on children's development in conversational skills. For younger children, it would be difficult to maintain discourse topics without parents' aids because of their inadequate linguistic and pragmatic competences. For example, parents may continue asking questions that serve to pass the floor to children and keep the topic going on at the same time. Wanska and Bedrosian (1986) stated that mothers play significant roles in facilitating their children's discourse skills. In consistence with their study, Huang (2004) also pointed out that the mothers' interactional styles could facilitate the children's acquisition of discourse skills.

1.1 Motivation

It has been widely recognized that adults talk to children in different ways from which they talk to adults. In order to communicate with the linguistically unsophisticated children, adjustments of speech are necessary for the adults. In such adjustments, characteristics such as simplicity and redundancy were found and recognized as features of child-directed speech by Snow (1977). Snow further pointed out that these characteristics were significant for the parents to maintain the interaction with their children. In terms of child language acquisition, studies regarding the mother's language inputs were greatly conducted due to the role of primary caregiver. In order to investigate the relationships between maternal speech styles and the child's language development, both structural and pragmatic characteristics of maternal speech has been analyzed in previous studies (Newport, Gleitman & Gleitman , 1977; Olsen-Fulero's study, 1982; Hoff-Ginsberg, 1986, 1987).

However, concerning the pragmatic aspects, topic maintenance was examined

merely as one of variables in the study concerning maternal speech styles and the child's language development and did not receive clear explanations (McDonald & Pien, 1982; Olsen-Fulero, 1982). Since the mother is usually the dominant speaker in the mother-child conversational interaction, the process of engaging the child in the conversation becomes significant for the dyad. For the mother, continuing of the conversation enables her to encourage the child's conversational participation and request information from the child in the conversation. For the child, being engaged in the ongoing conversation plays a significant role for him or her to acquire conversational competences such as conversational exchange and topic maintenance. Considering the relationship between the maternal interactional style and the mother-child conversational interaction, it could be expected that if the mother is careless for engaging the child in the conversation, the dyad's interaction would become less interactive. In sum, in maintaining discourse topics, the mother's interactional style may thus influence the way the child maintain discourse topics. In the present study, we are to investigate how maternal speech styles interact with topic maintenance in the Mandarin mother-child conversational interaction.

1.2 The Present Study

Previous studies focusing on maternal linguistic inputs / interactional styles and child's language development have been extensively conducted (Newport, Gleitman & Gleitman , 1977; Olsen-Fulero's study, 1982; Hoff-Ginsberg, 1986, 1987). These studies are mainly concerned with the child's acquisition of certain linguistic forms, e.g., child's acquiring of auxiliaries, or the child's development of linguistic competence, e.g., syntactic and morphological development, development of MLU. For example,

Olsen-Fulero (1982) discussed the relationship between maternal styles and children's development in various aspects on the basis of research across individual mothers. The conversational mother in his study, who asks many yes/no questions and gives few directives, may facilitate the child's linguistic development more than other mothers; the didactic mother in Olsen-Fulero's study, who encourages autonomy in the child, may provide facilitation for the child's cognitive development. Yoder and Kaiser (1992) examined several variables that may be relevant in the study of relations between maternal language input and child language development in English, including pragmatic development measurement such as percentage of test questions that child addressed and number of child questions. In their study attention was paid to the general pragmatic development rather than development in specific conversational capacities. Lin (2006) investigated maternal styles in conversation with children in Mandarin and provides detailed descriptions as to how mothers differ in terms of speech categories and conversation parameters. However, how maternal speech styles may interact with child's communicative capacities in Mandarin are still awaited further studies.

Based on the categorical system in previous studies (McDonald & Pien, 1982; Olsen-Fulero, 1982; Wanska & Bedrosian, 1986; Huang, 2004), the purpose of our study is to investigate the interaction of the maternal interactional styles and topic maintenance in Mandarin mother-child conversational interaction. What follows are our three research questions in our current study: (a) What are the mothers' interactional styles? (b) What are the differences among children's competences of topic maintenance? (c) How do the maternal interaction styles interact with topic maintenance in the conversational interactions?

Chapter 2

Literature Review

2.1 Maternal Speech and Child Language Development

Plenty of studies have been conducted to examine influence of the maternal language inputs on children's language development (Newport, Gleitman & Gleitman, 1977, McDonald & Pien, 1982, Olsen-Fulero, 1982, Snow, 1984, Hoff-Ginsberg, 1987, Yoder & Kaiser, 1989). However, researchers' perspectives on how children's language development is influenced by the maternal language inputs differ. For example, Snow (1984) adopted correlational and longitudinal studies to identify aspects of mother speech with the assumption that maternal speech observed in the earlier stage (time 1) affects the child's language development at a later point (time 2). Many researchers have reported that this time 1-time 2 relationships do not necessarily represent direct or unidirectional influence. These researchers have thus turned to look for evidence supporting indirect or bidirectional influence.

In the direct maternal influence model, it is proposed that children's language development is facilitated by specific maternal utterance types since they frequently present to-be-learned linguistic structures in salient ways. For example, Newport, Gleitman & Gleitman (1977) suggested that child's acquisition of auxiliaries is predicted by mother's use of yes/no questions.

Olsen-Fulero (1982) provided a model of how specific pragmatic and discourse features of mother interactional styles may positively influence child language development. They posited that the conversation-eliciting style is positively associated with subsequent child language development. Following Olsen-Fulero's study,

Hoff-Ginsberg (1986, 1987) found that requests for unknown information contained more auxiliaries, providing more language model than other utterances did.

In indirect influence models, the mother affects some parts of the child's outer behavior or inter process and in turn causes changes in the child's language capacity. Furthermore, there are two possible types of indirect models: *immediate* and *cumulative*. Hoff-Ginsberg's study (1987) implied an immediate indirect model where it is proposed that questions may be facilitative because they immediately elicit the child's conversation, which in turns elicits future language model for analysis. However, a cumulative indirect model is implied when they propose that question may be facilitative because they prompt the child to analyze language so that they can eventually converse appropriately. It should be noted that in such a model cumulative influence occurs repeatedly.

In the discussion of models of children's language development, Yoder and Kaiser (1989) explicated that in child-driven models, it is assumed that specific aspects of the child's language elicit particular maternal interaction styles. For example, child's long utterances may further stimulate mother's follow-up questions. In children-directed model, children that have more competent linguistic performance at time 1 may progress more over time since they are linguistically or cognitively more equipped, which in turn facilitates their later language development.

Based on results of their study on the relationship between maternal verbal interaction style and child language development, Yoder and Kaiser (1989) reported that a mother-driven, direct influence model may be inappropriate for determining the relationships between mother speech and child language development. Instead, they argued that child-driven and mother-driven explanatory model for the indirect

relationships are equally practical. They further conjectured that since many instances of social influence are bidirectional, a model of bidirectional influence is possible in some cases.

2.2 Maternal Speech Styles

Major studies considering maternal speech styles are presented in section 2.2.1. In section 2.2.2, maternal speech styles in previous studies are compared to illustrate how they were categorized and differentiated in these studies.

2.2.1 Previous Studies

Among studies on the characteristics of maternal speech, Nelson (1973) is the first researcher who reported the connection between maternal conversational style and early child language development. By investigating structural characteristics such as interrogatives and imperatives in maternal speech and relating these characteristics to children's language development, Nelson found that some characteristics could facilitate or inhibit children's later language development. With the argument that the structural characteristics such as syntactic and semantic characteristics of maternal speech are determined by the underlying intention of mother to influence the child, Nelson further distinguished responsive and directive maternal speech styles and explicated that imperatives were closely attributed to the mother's intention to control the child. Supporting Nelson's perspective of associating maternal structural characteristics with underlying intention, Snow (1977) then proposed characteristics of maternal speech, such as prevalence of interrogatives, simplicity, and redundancy, are associated with the mother's intention to converse with the child and to maintain interaction. Such intention of the mother thus drives the mother to engage the child in the ongoing conversation.

Nevertheless, Newport (1977) and Newport *et al.* (1977) argued that those same characteristic reported by Snow resulted from the mother's desire to control the behavior of her child. They argued that the prevalence of interrogatives to be explained by the mother's controlling or directive purposes and that simplicity and redundancy increase the effectiveness of directive communication.

Results of Newport (1977) and Newport *et al.* (1977) were later considered insufficient for explaining the prevalence of interrogatives in maternal speech by McDonald & Pien (1982). They stated that the former studies with the idea that maternal speech is determined by the mother's underlying intention led to the outcome that two hypothetical mother intentions (direction and conversation) seems in some aspects accounting for the same phenomenon. In addition, McDonald and Pien (1982) indicated that the focus of syntactic and semantic characteristics in the former studies may cause the two hypothetical mother intentions to be seemingly compatible. As a result, McDonald and Pien turned to analyze the illocutionary behavior of mothers with respect to two hypotheses: first, determination of maternal underlying intention would be inferable from patterning of illocutionary acts of mothers. Second, utterances with a directive function would show a negative relationship to those with a conversation-eliciting function.

Eleven mother-child pairs were included in McDonald and Pien (1982)'s study. Free play session of these dyads were videotaped in the laboratory and each dyad was observed on four sessions, 30 minutes in total. The children, six male and five female, aged from 2;5 to 3;0, which fell within a narrow range since the purpose was to examine the variation and internal structure of conversational behavior among mothers. All the

families were middle class and educational levels the parents were college or doctoral.

Referring to the illocutionary force of Searle (1969), the category system in McDonald and Pien (1982)'s study included speech categories and conversational parameters. In the speech category level, utterances were categorized as directives, questions, prompts, attention devices, response to questions/directives, acknowledgement, and spontaneous declaratives. In the conversational parameter level, mothers' talkativeness, conversational dominance, equality of participation, rate of topic change, and dyads' topic maintenance were investigated. By analyzing the mothers' speech according to the speech category level and conversational parameter level, McDonald and Pien (1982) discovered variability and patterns of distribution among categories across mothers. Results suggested that most of mothers' conversational behaviors were polarized into two negatively related clusters and each cluster represents an underlying mother intention for the interaction. The pervasive polarization of mother behavior into cluster supports their hypotheses that the processes of direction and conversation-elicitation are incompatible and even opposing in nature.

Moreover, McDonald and Pien (1982) reported a relationship between conversational parameters and speech categories: the mother's directive intention was positively related to mother monologue, mother dominance and inequality of participation. Regarding the other conversational parameters, it was found that mothers who intend to direct or control the child's actions tend to change topic frequently and fail to maintain the conversational topic. As for the conversation-eliciting intention, a close survey performed focused on topic shifts revealed that it appears to be served by maintenance of conversational topics or by abandonment of an uninteresting topic.

Although McDonald and Pien (1982) came out with a clear polarization into directive/conversation-eliciting of the mother's intention, they were also aware that there had been evidence suggesting that illocutionary behavior of mothers changes with respect to the child's age. They stated that when the child matures, the mother might be expected to be less motivated by the desire to control him or to elicit his conversational participation, but more motivated by the intention to communicate information with him (McDonald and Pien, 1982). However, since the maternal speech behaviors varied to a great extent regarding the restricted range of child age, McDonald and Pien (1982) pointed out that should such stylistic stability be found, the likelihood of significant effect on the child is very high.

Following McDonald and Pien, Olsen-Fulero (1982) adopted the same category system and differentiated utterances by illocutionary force. Their data collecting method was designed similarly to McDonald and Pien's. Subjects were eleven middle class mothers of six and five female children and each mother-child dyad was videotaped in the play room in the laboratory. The purpose of Olsen-Fulero's study was to categorize maternal speech styles based on the relative dominance of directive or conversation-eliciting behaviors. In addition, in order to solve the stability problem brought out by McDonald and Pien (1982), stability within each mother was examined by surveying two sessions of each dyad's free play.

Variability in maternal speech styles was proved significant statistically and qualitatively by Olsen-Fulero (1982). Stability of maternal speech style within each mother was calculated by Spearman rank-order correlation coefficients and also proved stable across two sessions. Since results also suggested that conversational variables

belonged significantly to the directive and conversation-eliciting clusters, Olsen-Fulero (1982) created two scales, one indicating directiveness and the other indicating conversation-elicitation. The score of a mother on one scale was then plotted against the score on the other according to the combined data. In this way, the relative dominance of each mother's conversational behaviors was illustrated and each mother's pattern of her overall conversational behavior was located and compared with that in any other mother in the directive/conversation-eliciting continuum.

The maternal speech styles were distinguished by Olsen-Fulero into two major types: the style of mothers who *influence* and mothers who *instruct*. The style of mothers who influence was further divided into directive mothers, conversational mothers, and intrusive mothers. Mothers who instruct were termed as *didactic* mothers, who encourage autonomy of their children and neither direct nor elicit their children.

2.2.2 Comparisons of Maternal Speech Styles

How maternal interactional styles were differentiated in previous studies is presented and compared in Table 1. Nelson (1973) distinguished responsive and directive maternal speech styles by means of syntactic and semantic features. However, both McDonald & Pien (1982) and Olsen-Fulero (1982) categorized the mother's conversational behaviors on the basis of illocutionary force and conversational parameters.

Table 1 Comparison of maternal styles in previous studies (Nelson,1973; McDonald & Pien, 1982; Olsen-Fulero,1982)

	Category System	Maternal Speech Style	
Nelson (1973)	syntactic and semantic features	directive	responsive
McDonald & Pien (1982)	illocutionary force and conversational parameters	directive	conversation-eliciting
Olsen-Fulero (1982)	illocutionary force and conversational parameters	mother who influences	directive intrusive conversational
		mother who instructs	didactic

McDonald & Pien (1982) categorized two mothers' and their children's utterances by taking illocutionary force and conversational parameters into consideration. Results of their study suggest that intercorrelations among all maternal variables reflect two polar predominant intentions for conversational interaction: the control of the child's physical actions, and the elicitation of his conversational participation. They stated that mothers' conversational behaviors are thus clusters of behaviors that reflect their communicative intentions which are negatively correlated—the more a mother displays conversation-eliciting behavior, the less she tends to control and direct the child in

conversations.

Acknowledging the contributions and conducting further study of McDonald and Pien's (1982) study, Olsen-Fulero's (1982) distinguished two major styles of maternal speech by adopting illocutionary force and conversational parameters as categorization systems: *mother who influences* and *mother who instructs*. To provide detailed description of the conversational style displayed by each mother, the mother who influences are divided into three sub-categories that together form a continuum—directive, intrusive, and conversational speech styles, which influence the child's linguistic and cognitive development of the child. The instructive style is also classified as didactic by Olsen-Fulero, which is considered an information-oriented style opposed to child-oriented style, or directive style. In Olsen-Fulero's classification, the mother who influences is conformed to the directive mother and the mother who instructs is conformed to the responsive mother in Nelson's (1973) study.

In sum, what the above studies contribute to the inquiry of maternal styles related to children's language development is that they provide plausible ways in which mothers' individual differences and underlying communicative intents can be examined by clusters of intercorrelated variables. In addition, statistically significant differences among distinct maternal styles and stability of maternal styles across two time sessions (Olsen-Fulero, 1982) also suggest that maternal styles can be distinguished.

2.3 Discourse Topic and Topic Management

In research concerning the term *topic*, there have been plenty of definitions and ideas within distinct theoretical approaches. Considering *topic* a syntactic notion, Mandarin has been considered a topic-prominent language where sentences are usually

expressed in topic-comment structure (Li & Thompson, 1981). Rather than preposed or base-generated syntactic topic and semantic topic, or *frame* proposed by Her (1991), *topic* is used as a discourse notion in this study in line with Keenan and Schieffelin's (1976, 1983) model.

Keenan and Schieffelin (1983) stated that *discourse topic* is the proposition (or set of propositions) about which the speaker is either providing or requesting new information—not an NP but a proposition. In mother-child conversation, continuation of a discourse topic is frequently achieved by means of adjacency pair of question-answer. In terms of the continuity of discourse topics, a distinction was made by Keenan and Schieffelin (1983): *continuous discourse* and *discontinuous discourse*. Continuous discourse is further divided into collaborating discourse topic and incorporating discourse topic, where the former refers to a topic that matches exactly that of the immediately preceding utterance and the latter refers to a topic that takes some presupposition of the immediately preceding topic and integrates a claim or new information. As for discontinuous discourse, it includes introducing topic and reintroducing topic. In both cases there are changes of discourse without drawing on the previous utterance.

According to Keenan and Schieffelin (1983), there are four prerequisites for establishing a discourse topic for both the speaker and the hearer: being attentive, articulating and receiving of the utterances, identification of the referents mentioned in the utterances, and identification of the semantic relations obtaining between the referents. Those prerequisites thus explicate the difficulty for young children to participate in and attend to a discourse topic. First, children may have not attended in the first place. Even if they do, they only have limited attention span and thus usually fail to collaborate on or

incorporate discourse for an extended period of time. Second, they are easily distracted by other new things they have noticed in the physical environment, which is frequently presented by children's sudden topic initiations in conversation. Finally, they may not provide a relevant next utterance because they do not understand the point due to their inadequacy in linguistic competence or failure in identification of the relationships between the introduced referents.

Foster (1982) paid attention on the ability to initiate and maintain conversational topics of children's development of the communicative competence. In the study discourse topic was assumed to be the proposition or set of propositions about which the speaker is either providing or requesting information, which was in line with Keenan and Schieffelin's (1976). In addition, Foster pointed out that a fully developed discourse topic involves not merely a single proposition but a sequence of propositions related both to each other and to a macroproposition that represents the sequence as a whole. The purpose of Foster's study was to discover how children acquire the skills of topic management in the prelinguistic and early linguistic period.

Subjects were five middle-class first-born children. Data were collected at six points with their ages growing, from 0;1 to 2;6. An hour of videotape of mother-child interaction at home was collected from each child at specified ages. Results indicated that mothers tended to produce more contributions to topics and in general there tended to be few contributions on the same topic except for mother-child mutual engagement in a structured routine, e.g., games and other predictable sequences such as meals and book-reading. These routines provide child with task structure that sometimes children can contribute 'performance without competence' (Clark, 1974). Or children are provided

ready-made structure by mother-controlled activities in which mothers scaffold children's contributions by incorporating them into conversations as they are relevant to the ongoing activity. In such routines, children need only respond to requests and questions and their mothers will put all the responses together into the larger framework of a topic. Foster (1982) also suggested that as children's communicative competence develops, children display increasing control of these structures and even manipulate the structure by coming up with unexpected information.

Wanska and Bedrosian (1986) investigated topic discourse skills in thirty children ranging in age from 2;0 to 6;3 in mother-child interaction in free play sessions. Since children develop the ability to perform more sophisticated discourse skills in conversation with increasing age, they proposed that the role of the participants, particularly the mother, in relationship to the child within an interactional framework be examined constantly. This study was concerned with the discourse skill of topic performance and its relationship to communicative intent. In this study the types of topics discussed by the participants, performance of topic management, and communicative intents in mother-child dyads were examined regarding topic initiation, shading, and topic maintenance. While topic initiation refers to the topic which is not linked in any way with the immediately preceding topic (Keenan & Schieffelin, 1976), topic shading refers to the topic which involves a change of focus rather than a discrete transition from one topic to another. Results showed that topic maintenance was much greater for fantasy and here-and-now topics than for displacement topic. In addition, mother initiated/shaded and maintained topics primarily by requests for all the three topic categories. Children used more informatives to initiate/shaded these topics, and maintained fantasy and

displacement topics primarily by responses to mothers' questions. These results suggested difficulty for children to discuss non-present objects or events and mothers' significant role in facilitating their children's discourse skills.

In research of the way in which discourse topics are presented in Mandarin conversations and narratives, Chiu (2001) proposes that discourse topic is a topic chain which consists of semantically related clauses, which can be further categorized into sub-topic chains and sub-sub-topic chains. This hierarchical organization of discourse topic is in line with Foster's (1982) assumption that a fully developed topic involves not just a single proposition, but a sequence of proposition related both to each other and to a macroproposition that represents the sequence as a whole. Huang (2002, 2004) investigated the child's capacity of topic management, including topic initiation and topic maintenance in Mandarin Chinese. In this study subjects were two two-year-old, two three-year-old, and two four-year-old Mandarin-speaking children and their parents, one father and five mothers. The categorical system, in which mothers and children's communicative intents were examined, was similar to Wanska and Bedrosian's (1986) study. Huang's study indicated that children's capacities increase through age and their advanced abilities may affect mothers' language uses. While younger children showed tendencies toward topic collaboration, where topics are maintained without addition of new information, when maintaining discourse topics, increasingly sophisticated capacity of topic incorporation, where topics are maintained through adding new information, was observed among older children. Results also showed that in the use of communicative intents, children initiated and maintained topics primarily with informatives, which was conformed to Wanska and Bedrosian's (1986) finding. Huang further indicated that the

prevalence of informatives in children's topic- initiating and topic-maintaining utterances might be explained by informatives' less interactive nature and children's egocentric nature in parent-child interaction.

Huang's study also illustrated that in order to keep the discourse topics going on in parent-child conversation, parents' elicitations and scaffolding play important roles.

While young children's conversational skills are less developed and immature, topic maintenance relies largely on parents' elicitations, which engage children in conversations and make the topic maintenance less demanding for children. However, being sensitive to children's language abilities, parents would make adjustments in adopting more topic incorporation as they find that their children have become more competent in communicative skills. As children's capacities increase, parents would become less dominant in parent-child conversational interactions. This finding is consistent with Foster's (1986) study, in which children's learning of topic management was examined. Yoder and Kaiser (1989) have also pointed out the possibility of bidirectional or mutual influence, especially in social interaction.

Chapter 3

Methodology

3.1 Subject and Data collection

Subjects were two 3-year-old girls, LIN and LJW, who were both the first-borns and acquired Mandarin as their first language in middle class families, and their mothers.

LIN's mother's educational level was college and LJW's mother was master.

Naturally occurring conversations of mother-child interactions were videotaped at home. Mothers were told to do what she would do as usual in interaction with their children. Both children had participated in Professor Chiung-chih Huang's project of child language acquisition¹ where their nature interaction with the mothers had been recorded and traced for several times, eliminating factors such as unfamiliarity with the observer and anxiety in front of the camera that might affect the naturalness of the data. The collected data were transcribed manually in accordance with the CHAT (Codes for the Human Analysis of Transcripts) format.

For each dyad, two sessions² of one-hour data in which the child was around age 3 were examined, making up four hours in total. Activities engaged by the two dyads are presented in table 2. In both LIN and LJW's dyads, free talks were commonly observed. These free talks included discussion of the child's likes and dislikes, recalling things that happened at school or in the past, and information-oriented discussions. In addition, story-telling took up great portions in both dyads' interaction. When LIN's dyad was dealing with story-telling, several episodes were concerned with role-playing. Besides free talks and story-telling, eating was also observed in both dyads' interaction. As for

¹ I am grateful for Professor Huang's kind support for the present study.

² In the two sessions of each child, LIN's age were 3;1.1 and 3;1.16, LJW's were 3;0.25 and 3;1.8.

differences among their activities, while LIN's dyad was engaged in toy-playing at times, LJW's dyad focused on book-reading instead. Other activities, including dancing, drawing, and singing, took up merely minor portions of the data.

Table 2 Activity types in the two dyads' conversational interaction

Mother-child Dyad	LIN	LJW
Activity Types	Free talk Story-telling (Role Playing) Eating Toy-playing Dancing	Free talk Story- telling Eating Book-reading Drawing Singing

3.2 Coding Scheme

This section contains two parts and explicates how data were categorized in our study. Section 3.2.1 is concerned with the coding scheme of maternal speech styles which consists of speech category and conversational parameter. In section 3.2.2, category systems regarding the child's topic-maintaining capacities are presented.

3.2.1 Maternal Interactional Style

In the mother-child interactions, mothers' utterances are categorized based on previous studies (McDonald & Pien, 1982; Olsen-Fulero, 1982; Lin, 2006). The categorization system contained the speech category level and the conversational parameter level. In addition, the category system was revised for purpose of our study:

Speech Category

- a. *Directives*. A directive is an utterance which elicits and constraints the physical behavior of the hearer (Searle, 1975), e.g., “坐好!”
- b. *Questions*. Questions are utterances which elicit verbal responses from the hearer and pass the floor to the hearer at the same time (Olsen-Fulero, 1982; Lin, 2006). Since question serve as a device for mother to engage the child in conversation and pass the turn to the child, it usually takes up a great portion within mother’s utterances (McDonald & Pien, 1982; Olsen-Fulero, 1982; Lin, 2006). In order to analyze the performance of mother’s interactional styles to a greater extent, in this study we are to take a close look into mother’s utterances in question forms.
 - (1) *Repairs*. Repairs are used to keep the conversation going on, which usually appear in the forms of total or partial repetition of the hearer’s previous utterance (Lin, 2006), e.g., CHI: “媽媽我想要喝可樂”, MOT: “你要喝什麼?”
 - (2) *Test questions*. For a test question, a specific or restricted answer is required for the hearer (McDonald & Pien, 1982; Lin, 2006), e.g., “這是什麼顏色?” “綠的還是紅的?”
 - (3) *Real questions*. Real question refers to question that seeks information unknown to the speaker from the hearer (McDonald & Pien, 1982; Lin, 2006), e.g., “你中午吃什麼?”
 - (4) *Verbal reflective questions*. Verbal reflective questions are questions that pass the turn to the hearer without adding new information (McDonald & Pien, 1982; Lin, 2006), e.g., “他很乖, 對不對?”

- (5) *Action reflective questions*. Action reflective questions are questions that pass the turn to the hearer when paying attention the hearer's action, which often take the form of tag questions with falling intonation (McDonald & Pien, 1982; Lin, 2006), e.g., “你撞到了, 是不是?”
- (6) *Report questions*. Report questions are questions serving to inform or comment on the child when he or she is not aware of a certain fact or event or becomes aware of that, which often take the form of tag questions with falling intonation (McDonald & Pien, 1982; Lin, 2006), e.g., “是不是像爸爸那麼胖?”
- (7) *Permission requests / offers of help*. Permission requests are question used by the speaker to seek permission or acceptance for a certain action of the speaker (McDonald & Pien, 1982; Lin, 2006), e.g., “媽媽幫你把這個打開好不好?”
- c. *Declaratives*: an utterance which provides new information or comments on children's previous utterance or activity (Olsen-Fulero, 1982; Lin, 2006).
- d. *Prompts*: an utterance with an attempt to force a response from the hearer to the speaker's previous utterance (Olsen-Fulero, 1982; Lin, 2006), e.g., “我們來看書”, “好不好?”
- e. *Attention devices*: Attention devices are utterances which are intended to attract the attention of the hearer (McDonald & Pien, 1982; Lin, 2006), e.g., “好我們來看喔.”
- f. *Responses*: Responses are utterances which serve as feedbacks for questions or

directives (McDonald & Pien, 1982; Lin, 2006), e.g., CHI: “媽媽這是什麼?”,
MOT: “這是長頸鹿啊.”

- g. *Acknowledgements*: Acknowledgements are utterances which acknowledge either the child’s previous declarative statement or activity without adding new information or commenting (McDonald & Pien, 1982; Lin, 2006), e.g., CHI: “我喜歡吃番茄.”, MOT: “好.”

Conversational Parameters

- a. *Topic Maintenance*: The average number of speaking turns devoted to the same discourse topic by the dyad as a unit.
- b. *Mother’s Rate of Topic Change*: The proportion of utterances which shift the discourse topic out of the child’s total number of utterances.

3.2.2 Children’s Topic-maintaining Competence

The child’s topic maintaining utterances were analyzed according to the following categories.

Communicative Intents (Wanska & Bedrosian, 1986; Huang, 2004)

- a. *Informative*: an utterance which gives information or comment in a declarative form.
- b. *Question*: an utterance which asks for information in a question form.
- c. *Request*: an utterance which asks for an action to be performed in a question, declarative or imperative form.
- d. *Acknowledgement*: an utterance which recognizes the fact that the previous speaker has said or done something.
- e. *Response*: an utterance involving a yes/no response to a question, or an answer

supplied to a question asked.

Topic Incorporation/Collaboration (Keenan & Schieffelin, 1976; Huang, 2004)

In order to examine how frequently new information was provided by the children when maintaining discourse topics in interactional contexts, children's topic-maintaining utterances were further divided into *topic incorporation* and *topic collaboration* according to the information status provided. Topic incorporation refers to an utterance that continues the topic by matching the proposition of the previous utterance; topic collaboration refers to an utterance that continues the topic by adding or requesting additional information.

Child's Rate of Topic Change

The proportion of utterances which shift the discourse topic out of the child's total number of utterances.

3.3 Data Analysis

Section 3.3.1 and 3.3.2 regards how the collected data were analyzed according to the category system in previous studies. In section 3.3.3, how topic episode is identified for analyzing topic maintenance in mother-child interaction is presented.

3.3.1 Maternal Interactional Style

In order to differentiate maternal interactional styles in Mandarin mother-child conversational interactions, the category system was designed similarly to previous studies concerning maternal interactional styles (McDonald & Pien, 1982; Olsen-Fulero, 1982; Lin, 2006). For the speech category level, all the utterances produced by each mother were coded. For the conversational parameter level, the dyads' topic maintenance and the mother's rate of topic change were examined. Results of the two levels would

together be investigated to see if their tendencies of conversational behaviors were consistent with those maternal interactional styles distinguished in previous studies.

3.3.2 Children's Topic-maintaining Competence

In order to investigate how children related their utterances to preceding utterances produced by their mothers in the process of ongoing conversational exchange, all the topic-maintaining utterances of each child were first identified and then analyzed in accordance with communicative intents (Wanska & Bedrosian, 1986; Huang, 2004). These topic-maintaining utterances were further analyzed in terms of topic collaboration and topic incorporation (Huang, 2004). In such a way, frequency of adding new information in children's topic-maintaining utterances could be observed. In addition, children's rate of topic change was examined to see how frequent they change topics in the conversational interaction (McDonald & Pien, 1982; Olsen-Fulero, 1982; Lin, 2006).

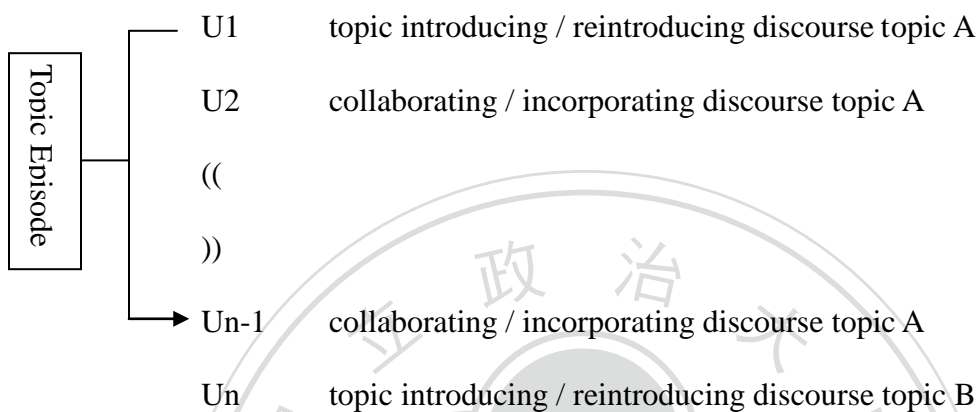
3.3.3 Mother-child Interaction—Topic Episode

In order to investigate topic maintenance in mother-child interaction, data were examined based on topic episode, or conversational exchanges conforming to a propositional content. For the purpose of our study, a topic episode is defined as a stretch of discourse that contains utterances that continue a discourse topic. A stretch of discourse may contain a series of linked utterances and the utterances may be linked in a least two ways (Keenan & Schieffelin, 1983): First, two or more utterances may share the same discourse topic, which is considered *collaborating discourse topics* by Keenan and Schieffelin (1983). Second, discourse topics may take some presupposition of the immediately preceding discourse topic and/or the new information provided relevant to the discourse preceding and use it in a new utterance, which is considered *incorporating*

discourse topics by Keenan and Schieffelin (1983). In addition, both collaborating and incorporating discourse topics are *continuous topics*.

The following scheme presents how a topic episode is identified in our study:

Figure 1: Preliminary topic episode identification scheme

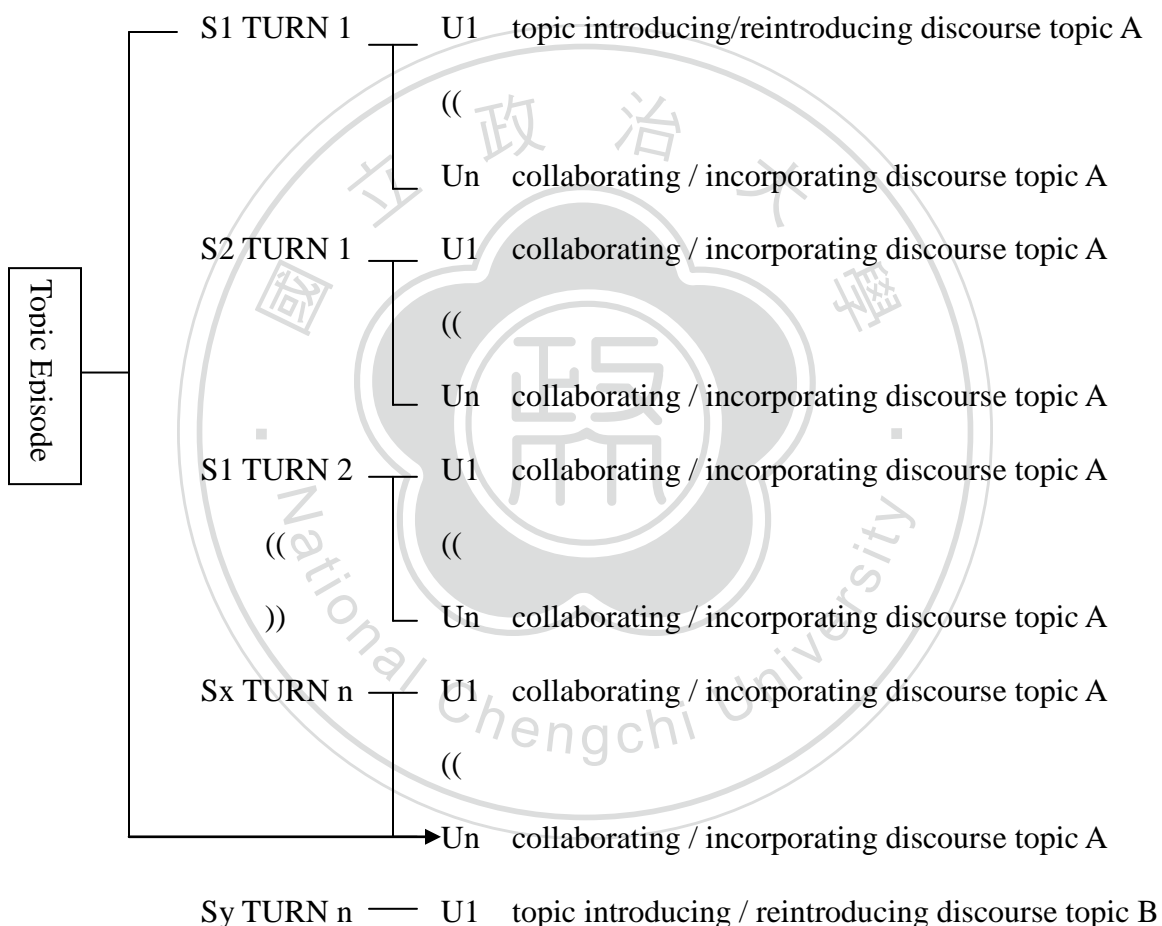


A minimum topic episode is consisted of at least two utterances, a topic introducing / reintroducing utterance and a topic continuing utterance. If the immediately following utterance continues the discourse topic, the topic episode will become longer. *Un* represents that in theory the same discourse topic can be continued or maintained endlessly, which is nevertheless hardly possible in daily conversation due to physical limitation of the speakers. Suppose that *Un* discontinues the discourse topic and introduces a new discourse topic / reintroduces a previously introduced discourse, then the present topic episode ends. In sum, a topic episode begins with an utterance with a discourse topic that is continued by the immediate following utterance and ends with an utterance with a discourse topic that is discontinued by the immediate following utterance.

Here it should be noted that the above model is in theory utterance-based but not speaker-based. If such a topic episode involves only one speaker, it is realized as a

monologue or narration. However, in real conversational exchanges, a discourse topic is usually maintained through several utterances by at least two speakers. To capture the nature of mother-child interaction of topic maintenance in our study, the identification scheme of a topic episode should thus be presented as speaker turns consisting of subordinated utterances that continue a discourse topic:

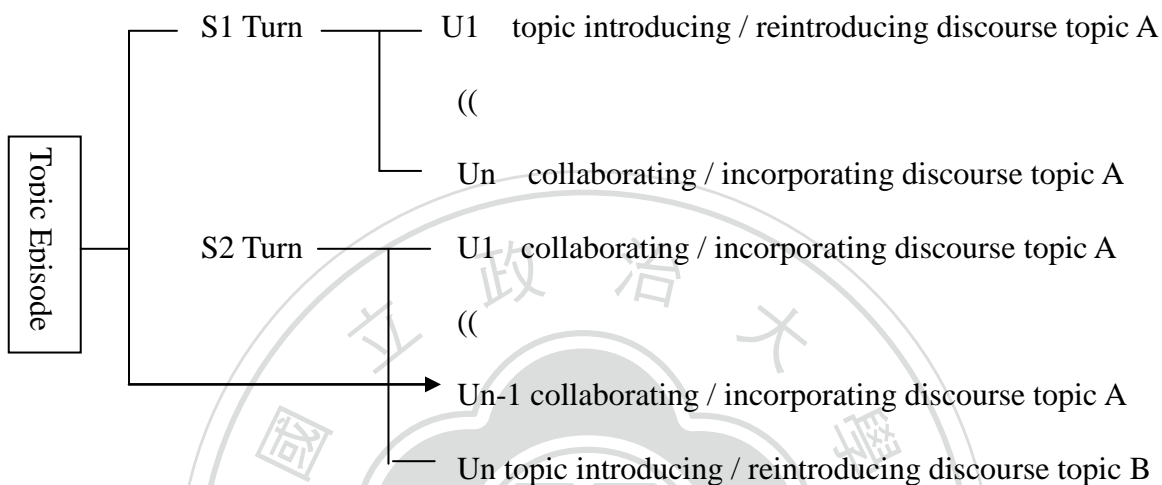
Figure 2: Topic episode identification scheme involving two speakers



The above scheme shows that in our study, for a topic episode a discourse topic is maintained or continued by at least two speaking turns and each speaking turn contains at least one utterance. This model is in theory necessary since in conversational exchanges speakers frequently elaborate their statements or add more comments when maintaining

discourse topics in a single speaking turn. In addition, if in a given speaking turn the speaker makes a topic introducing / reintroducing utterance at a certain point, the given speaking turn will serve as the closure of the topic episode:

Figure 3 Speaking turn with topic introducing / reintroducing utterance



The total number of topic episode were identified and analyzed to investigate the interaction of maternal interacitonal styles and topic maintenance.

Chapter 4

Results

Results of data analysis are presented in this chapter. In section 4.1, utterances of the two mothers were analyzed in terms of the speech category level and the conversational parameter level. In addition, their conversational characteristics and interactional styles were compared on the basis of previous studies. Section 4.2 is concerned with the two children's topic maintaining utterances and their topic maintaining competences. In section 4.3, the two dyads' topic maintenance was examined and related to the two mothers' interactional styles in interactional contexts.

4.1 Maternal Interactional Style

Results regarding the speech category and conversational parameter level are presented in section 4.1.1 and 4.1.2 respectively. The two mothers' interactional styles are distinguished according to previous studies.

4.1.1 The Speech Category Level

Results of the speech category level in the two mothers' utterances are presented in table 3. Over one-third of LIN's mother's (35.4%) and LJW's mother's (38.9%) utterances are questions. It suggests that questions are frequently adopted by adults to compensate for children's immature conversational skills such as conversational exchanging and topic maintenance, which conforms to previous studies concerning mother-child conversation. As for the subcategories of questions, no significant difference is observed in two mothers except for the more frequent use of report questions and permission requests in LJW's mother's questioning utterances. While LJW's mother adopted prompts (8.6%), attention devices (5.4%), and declaratives

(23.7%) slightly more frequently than LIN's mother, LIN's mother (19.6%) adopted more directives than LJW's mother (5.9%).

Table 3 Results of the speech category level in two mothers' utterances

		LIN's Mother	LJW's Mother
Directives		260(19.6%)	172(5.9%)
Questions	Repairs	28(2.1%)	42(1.4%)
	Test Questions	122(9.3%)	281(9.6%)
	Real Questions	179(13.6%)	331(11.3%)
	Verbal Reflectives	49(3.7%)	76(2.6%)
	Action Reflectives	14(1.1%)	12(0.4%)
	Report Questions	48(3.6%)	268(9.7%)
	Permission Requests/ Offer of Helps	26(1.9%)	129(4.4%)
	Total	466(35.4%)	1139(38.9%)
Prompts		69(5.2%)	252(8.6%)
Attention Devices		43(3.3%)	159(5.4%)
Responses to Question/Directives		76(5.8%)	105(3.6%)
Acknowledgements		151(11.5%)	405(13.8%)
Declaratives		251(19.1%)	693(23.7%)
Total		1316(100%)	2925(100%)

In both mothers' utterances, questions were the most frequently. The mother could keep

the conversation continuing by manipulate different kinds of questions:

(1) MOT is questioning about where LJW's bag is.

- 1 *MOT: 你的袋子咧?
'Where is your bag?'
- 2 *LJW: 袋子.
'Bag.'
- 3 *LJW: 袋子放在那邊.
'The bag is put there.'
- 4 *MOT: /ha/?
'What?'
- 5 *MOT: 袋子放在哪裡?
'Where is the bag put?'
- 6 *LJW: 在那 [= pointing to a bag on the floor].
'It's there.'

As shown in example (1), LJW's mother began with a real question that elicited LJW's verbal response. LJW then provided the answer, in which the location requested was not explicit due to the use of referential expression 'there'. Since LJW's mother didn't receive enough information to infer the location of the bag, she replied with a repair. In order to elicit the answer she needed, the repair was immediately followed by a new real question which served the same function to the first real question. Results presented in table (3) have illustrated that among all the speech categories, both LIN and LJW's mother questioned their children the most frequently. What differed the most significantly in their speech categories was that while LJW's mother appealed to declaratives the second frequently, LIN's mother appealed to directives. In the middle of periods of ongoing conversations, it's observed that LIN's mother frequently used directives to

control LIN's physical behaviors rather than verbal behaviors:

(2) LIN is looking at a penguin on the cover of a videotape.

1 *MOT: 一綾姊姊請問你在幹什麼?

'What are you doing, LIN?'

2 *LIN: 我在看企鵝.

'I'm looking at the penguin.'

3 *MOT: 你在看企鵝.

'You're looking at the penguin.'

4 *MOT: 那請你的腳可不可以把他放出來.

'Please take out your feet.'

5 *LIN: 唉唷我知道了啦 [= in loud voice]!

'O.K. I knew it!'

In example (2), LIN was thinking about which videotape to watch and looking at one of the videotapes. LIN's mother asked what she was doing and was provided with LIN's proper response. However, LIN's mother didn't elicit more information about what LIN was focusing on but turned to control the place she thought her child's feet should be in.

4.1.2 The Conversational Parameter Level

Table 4 Results of two mothers' conversational parameter level

	LIN's Mother	LJW's Mother
Topic Maintenance	9.4 (952/101)	19.2(1973/103)
Rate of Topic Change	9.9% (131/1316)	2.7%(78/2925)

Results of the mothers' conversational parameter are illustrated in table 4. It can be clearly observed that the average length of topic episode maintained by LJW's mother and LJW was 19.2, which is much longer than that maintained by LIN's mother and LIN

(9.4). As for the rate of topic change, results showed that LIN's mother changed topics much more frequently than LJW's mother. In general, the two mothers' conversational behaviors in the conversational parameter differed to a great extent.

In section 4.1.1 and 4.1.2, the two mothers' speech was analyzed in terms of the speech category level and the conversational parameter level. In the next section, results of the two levels are to be compared to those in McDonald and Pien (1982) and Olsen-Fulero (1982)'s study. In addition, results of the conversational parameter level will be further examined in terms of the two dyads' conversational interactions in section 4.3.

4.1.2 Maternal Interactional Style of the Two Mothers

By looking into the two mothers' distribution of utterances in the speech category level and the conversational parameter level in the previous sections, pictures of the two mother's conversational characteristics were presented. As hypothesized by McDonald and Pien (1982), determination of maternal underlying intention would be inferable from patterning of illocutionary acts of mothers. In terms of the speech category level, by adopting directives much more frequently than LJW's mother, LIN's mother seemed intending more to control LIN's physical actions. In terms of the conversational parameter level, LIN's mother changed topics much more frequently than LJW's mother and LIN's dyad maintained topics through less turns than LJW's dyad. Compared with McDonald & Pien (1982), LIN's mother's cluster of conversational behaviors conformed more to the directive mother distinguished in their study, and LJW's mother's cluster of conversational behaviors conformed more to the conversation-eliciting mother. Compared with Olsen-Fulero (1982)'s study, LIN's mother conformed more to the

directive mother, and LJW's mother conformed more to the conversational mother. In the study, the interactional style of LIN's mother would be considered *more directive* and LJW's mother would be considered *more conversational-eliciting* in the study. With such intentions of the two mothers in mind, we are to relate them to the two dyads' topic-maintaining in section 4.3.

4.2 Children's Speech in Topic Maintaining Utterances

In this section, the two children's topic maintaining competences are examined by means of communicative intents, topic collaboration / incorporation, and rate of topic change.

4.2.1 Communicative Intents

Table 5 Results of two children's communicative intents in topic-maintaining utterances

	LIN	LJW
Declaratives	84(18.2%)	198(19.8%)
Questions	29(6.3%)	37(3.7%)
Requests	77(16.7%)	70(7%)
Acknowledgements	27(5.9%)	77(7.7%)
Responses	243(52.8%)	617(61.8%)
Total	460(100%)	999(100%)

Results of two children's communicative intents in topic-maintaining utterances are presented in table 5. In both LIN's and LJW's topic-maintaining utterances, responses are the most frequently occurring communicative intent, taking up nearly half tokens in both data, which corresponds to their mother's frequent uses of questions in their utterances.

Nevertheless, LJW appealed to responses more often than LIN did when maintaining topics, which might suggest that LJW attended more to her mother's questions or requests than LIN.

(3) MOT and LJW are talking about LJW's going to the dentist in the morning.

1 *MOT: 去哪裡看牙齒?
'Where did you go check your teeth?'

2 *LJW: 去 -: 醫院.
'Went to the hospital.'

3 *MOT: 去醫院.
'Went to the hospital.'

4 *MOT: 去萬芳醫院對不對?
'Went to Wan Fang Hospital, right?'

5 *LJW: 嗯.
'Yes.'

6 *MOT: 然後呢?
'Then?'

7 *MOT: 啊 <你> [] 你有沒有哭?
'Did you cry?'

8 *LJW: 0 [= nodding].

9 *MOT: 有喔.
'You did.'

10 *MOT: 為什麼會哭?
'Why did you cry?'

11 *LJW: <因為> [] 因為很痛.
'Because it hurt.'

In example (3), LJW's mother asked LJW about the incident of seeing dentist earlier in the morning. Instead of leaving LJW to describe the whole incident by herself, LJW's

mother eased the task by constantly asking questions which elicit just one piece of information at a time. It can be observed in the example that LJW continued catching up with her mother's questions and providing relevant replies to her mother's inquiries about the incident of seeing the dentist. The whole topic episode concerning seeing the dentist in fact continued for more than 40 speaking turns, to which the mother contributed mostly questions and LJW mostly responses.

While LJW adopted more responses (61.8%) than LIN (52.8%) when maintaining topics, LIN adopted slightly more questions (6.3%) and much more requests (16.7%) than LJW (3.7 % and 7%). Compared to results in previous study (Wanska & Bedrosian, 1986; Huang, 2004), LIN's frequent performance of maintaining discourse topics by requesting is salient and thus deserves investigation.

(4) MOT is asking for the toy bear.

- 1 *MOT: 熊熊咧?
'Where is the bear?'
- 2 *MOT: 那你熊熊給我 # 那我的.
'Give me the bear, it's mine.'
- 3 *LIN: 我的 # 這我的.
'Mine, it's mine.'
- 4 *MOT: /e/叔叔給我的咧.
'But Uncle gave it to me.'
- 5 *LIN: 不要.
'No way.'

In example (4), LIN's mother was requesting for the toy bear that was brought in by the observer 'Uncle'. LIN's mother began with claiming the possession of the toy bear. After the possession was denied by LIN, the mother continued to reissue the possession by

providing evidence regarding the source from which the toy bear came. LIN then appealed to a request that displayed her refusal. In terms of communicative intents, frequent occurrence of requests in LIN's topic maintenance might be explained in two aspects. From the child's angle, the intention of requesting in topic maintenance implied that LIN was egocentric in some way that when she was interacting with her mother, she put more attention on her personal needs than the conversation itself. In other words, instead of eagerly participating in the conversational interaction, LIN tended to relate the present conversation to her own desires or intentions. From the angle of interacting with the mother, LIN's mother's intention to control her child's physical behaviors might lead to the dyad's less interest of participating in the conversation. That is, if the mother frequently directs the child to do things, it might turn out that continuing of a conversation or maintaining of a discourse are overlooked or even ignored by the dyad. In sum, in either points of view it suggested that compared with LJW, LIN's intention of requesting revealed her greater interest in her own desires rather than being engaged in the conversational interaction. As for interaction of the two dyads, more discussions will be conducted after the conversational parameters are examined in section 4.3.

Besides a great number of responses among LIN and LJW's topic-maintaining utterances, their second frequent uses, declaratives, are fairly equal (18.2% and 19.8%). As reported in Huang's (2004) study, prevalence of declaratives, termed as informatives in Huang's study, might be explained by the less interactive nature of informatives in the present point of age. This suggested that in the current case, being inadequately interactive, the two three-year-olds children were not mature enough regarding the conversational skills and still required their mothers' elicitation in the interaction.

4.2.2 Topic Incorporation/Collaboration

Table 6 Results of two children's topic incorporation/collaboration in topic-maintaining utterance

	LIN	LJW
Topic Incorporation	251(54.6%)	506(50.6%)
Topic Collaboration	209(45.4%)	493(49.4%)
Total	460(100%)	999(100%)

Concerning the information provided by the two children, results of two children's topic incorporation/collaboration in topic-maintaining utterance are presented in table 6. In half of the time, both LIN (54.6%) and LJW (50.6%) incorporated new information when maintaining topics at about age 3, suggesting that by means of the mother's elicitation they were already capable of taking propositions in the previous utterances as foundations and adding new materials to them. At this point, quantitative analysis of two the children's topic incorporation/collaboration in topic-maintaining utterance suggested that LIN and LJW displayed nearly equal sophistication in providing new materials when maintaining discourse topics. Since understanding of children's topic-maintaining capacity cannot be done without exploring how new materials are added in continuing of discourse topics, qualitative analysis of LIN and LJW's topic maintenance was conducted with respect to topic incorporation/collaboration.

At most of the times, maintaining of discourse topics was eased by their mother's successive elicitations, such as questions in similar structure and content that were sometimes partially repetitive:

(5) MOT and LIN are talking about voting for popular cartoon characters.

- 1 *MOT: 你早上不是說要投給 -: 皮什麼 +...
 ‘Didn’t you say in the morning that you would vote for someone named /pi/...?’
- 2 *LIN: ++ <皮卡丘> [= cartoon character].
 ‘Pokemon.’
- 3 *MOT: 啊妹妹投給誰?
 ‘Who did Sister vote for?’
- 4 *LIN: <kitty> [= cartoon character] .
 ‘Kitty.’
- 5 *MOT: kitty 喔.
 ‘Oh Kitty.’
- 6 *MOT: 啊叔叔咧?
 ‘How about Uncle?’
- 7 *LIN: <哈姆太郎> [= cartoon character].
 ‘Hamtaro’
- 8 *MOT: <哈姆太郎> [= cartoon character].
 ‘Hamtaro’
- 9 *MOT: 啊媽媽投給誰?
 ‘Who did Mother vote for?’
- 10 *LIN: 也投給哈姆太郎.
 ‘Hamtaro, too.’
- 11 *MOT: 我也投給哈姆太郎.
 ‘I voted for Hamtaro, too.’

In example (5), LIN and her mother were talking about which cartoon character to vote for. By continuing asking which character did a specific person vote for, structure and content of the questions were partially repeated in line 3, 6 and 9 as ‘who did X vote for’.

Within the clear context where the discussion of which character to vote for was attended

by the dyad, the verb ‘vote for’ could even be omitted by the mother in line 6 without causing any problem in LIN’s understanding. Given elicitations in repetition, the child could thus produce relatively more substantial contributions and maintain topics for more turns (Huang, 2004).

Generally, due to the unsophisticated conversational skills, maintaining of discourse topics for children relies heavily on mothers’ elicitations. As a result, the parents tend to become the dominant speakers in the parent-child conversation interaction. Intending to engage their children in the conversation, the parents would be likely to elicit their children with successive questions like what was illustrated above (Huang, 2004). Or, if their intentions are not to elicit their children’s verbal participation but to control their children’s physical behaviors, they may adopt a lot of directives or devote themselves to long monologue (McDonald & Pien, 1982). In one way or the other, the parents are usually the dominant speakers who control the development of topics. Nevertheless, in our data, situations where the child took good control of the developed topics were observed:

(6) LIN claims that she want to raise pigs at home.

- 1 *MOT: 一綾啊 # 那個你如果看到有那個小豬在跑 # 那是電視裡面的。
‘LIN, if you saw pigs running, that happened only in TV.’
- 2 *MOT: 那個不能養你知道嗎?
‘Do you know that you can not actually raise them?’
- 3 *MOT: 我們家哪有地方可以養。
‘There is no space for it in our place.’
- 4 *MOT: 養你們兩隻就受不了了。
‘Raising you two is enduring enough.’
- 5 *LIN: 養在下面好了。

- ‘Just raise it down there.’
- 6 *MOT: 哪個下面啊?
‘Down where?’
- 7 *LIN: 不知道 # 養在門口好了.
‘I don’t know, then raise it at the entrance.’
- 8 *MOT: 養在門口啊?
‘Raise it at the entrance?’
- 9 *LIN: 嗯.
‘Yes.’
- 10 *MOT: 養在門口你不怕他跑走嗎?
‘Won’t you be afraid that it runs away?’
- 11 *MOT: 就不見啦.
‘Then it will be gone.’
- 12 *LIN: 沒關係.
‘It’s fine.’
- 13 *LIN: <你就> [∕] 你就關門 # 他就不會跑走了.
‘As long as you close the door, it will not run away.’

In the above example, LIN expressed her great interest in raising a small pig at home. In the beginning, the mother discouraged LIN by appealing to several reasons and even mentioned that she already got LIN and her sister to raise. In spite of being strongly discouraged by her mother, LIN still continued to argue for raising the pig by providing several solutions that she thought would be workable. During the discussion, LIN kept contributing to the topic of raising the pig and gradually took control of the topic of raising the pig. A similar case was observed in another conversation of a pretend play where LIN and the mother were playing soldiers:

(7) LIN and the mother are playing soldiers.

- 1 *MOT: 還要演什麼 # 我請問你?
'May I ask you what else do you want to play?'
- 2 *LIN: 還要演 # <我還要> [/] 我還要演士兵.
'I still want to play the soldier.'
- 3 *MOT: 士兵 # 好.
'Soldier, fine.'
- 4 *MOT: 請問士兵是...
'And what does the soldier...'
- 5 *LIN: 士兵要拿著 <這個> [= toy sword] 啊 # 士兵.
'The soldier has to take this.'
- 6 *LIN: 然後 # 然後你要拿 <這個> [= another toy sword].
'And you take this one.'
- 7 *LIN: 你要拿這個啊.
'You have to take this one.'
- 8 *LIN: 你剛是拿 <這個> [= toy sword No.8] 對不對?
'You took this one, right?'
- 9 *MOT: 我不是拿這個 # 對不起 # 是拿六.
'I did not take this one, excuse me, I took No.6.'
- 10 *LIN: 六 # 你拿 # 你拿出來.
'No.6, you take it out.'

In the above pretend play, the mother did not control the conversation but asked for directions from LIN. LIN produced successive utterances, consisting of 3 directives in one turn from line 5 to 8, making more contribution than her mother and dominating the conversation. In sum, in the conversational interaction, elicitation of the mothers play significant roles in the young children's maintaining of discourse topics. By means of such kind of maternal scaffolding, maintaining topics thus becomes less demanding for children. However, as children's communicative competence develops, they take

increasing control of the conversation and require less help from their mother in the conversational interaction (Foster, 1982; Huang, 2004).

Besides the mother's dominant role in the child's topic maintenance, the types of discourse topic to which the dyad attended were investigated as well. Children at this age usually maintain here-and-now topics, which regards objects that are easy for children to assess at hands or going-on events they are dealing with. In parent-child conversational interaction, maintenance of now-and-here topics often occurs in routines such as meal time, toy-playing, and book-reading. Take example (8) for example, in book-reading LJW was presented with a book from which her mother could easily request for information:

(8) MOT is pointing to a zebra in the book.

- 1 *MOT: 那是什麼東西?
'What is that?'
- 2 *LJW: 這是 -: 斑馬.
'This is a zebra.'
- 3 *MOT: +^斑馬喔.
'Oh a zebra.'
- 4 *LJW: 斑馬有 <這個> [= ears].
'Zebra has these.'
- 5 *MOT: 那是什麼?
'What is that?'
- 6 *LJW: <這是> [/] 這是耳朵.
'These are ears.'
- 7 *MOT: 耳朵在哪裡?
'Where are the ears?'
- 8 *LJW: 耳朵在這兩邊.
'Ears are in the two sides.'

By referring to the book, not only could the mother rapidly decide types of information to request for and questions to ask but also could LJW sometimes provide answers or new materials by simply pointing to something in the book. For example, the topic was maintained by LJW'S referring to the ears of the zebra in line 4. Instead of naming the zebra's body part 'ears', LJW merely pointed to it with the referential expression 'this'. Similarly, in line 7, LJW replied to her mother's question simply by directly pointing to the position of the ears rather than by providing answer such as 'on the head'. Further survey of the data also revealed that LJW at times brought in information in such way, suggesting that she is more or less a referential child. In some cases, LJW brought in materials by using referential expressions even when these materials were not presented in front of her or being at joint attention. As illustrated in the above example, in maintaining topics, LJW's referential nature in referring to things thus often led to her mother's subsequent questions meant for clarifying the exact referents or ensuring LJW's knowledge of naming the things.

Besides here-and-now topics, by means of the mother's elicitation, children at this age already have the ability of talking about displacement topics considering past events³ or non-present objects:

(8) MOT and LJW are talking about the story of a lion and a mouse.

- 1 *MOT: 獅子跟老鼠為什麼變成好朋友?
'Why did the lion and the mouse become good friends?'
- 2 *LJW: <因為> [ɿ] 因為他們相處在一起.
'Because they get along with each other.'
- 3 *MOT: 為什麼他們相處在一起?
'Why did they get along with each other?'

³Talking of a past event could be also seen in example (3), p.35.

- 4 *LJW: 我剛剛已經跟你說啦.
'I already told you.'

This example was remarkable since it indicated that LJW remembered the event of having been asked the same question and answered it, which was in fact more than 20 turns away from her present utterances in line 4. This suggested that being engaged in the conversation, LJW was capable of taking the whole structured framework, e.g., the stretch of talking about the reasons for the friendship between the lion and the mouse, as the proposition with which she develop a new proposition.

4.2.3 Rate of Topic Chang

Table 7 Results of two children's rate of topic change

	LIN	LJW
Topic Maintaining Utterances	460	999
Topic Shifting Utterances	66	104
Total	526	1103
Child's Rate of Topic Change	12.5%	9.1%

Table 7 shows that LIN changed topics slightly more frequently than LJW did but there is no significant difference. Together with their equivalent capacity in incorporating / collaborating topics shown in section 4.2.2, it suggested that LIN and LJW displayed nearly the same in terms of the capacity of topic maintaining but showed subtle difference in terms of communicative intent in topic-maintaining, as shown in section

4.2.1.

In section 4.2, how discourse topics were maintained by the mothers' constant elicitations and the children's responses, and the types of topics discussed within the interactions were investigated. In terms of the two children's performance of topic collaboration / incorporation in maintaining discourse topics, it seemed that they could not only matching the propositions in the previous utterances produced by their mothers, but also provide new information in varieties of situation. They were also capable of maintaining here-and-now and non-present topics with their mothers' elicitations. In some circumstances, e.g., free talks and pretend plays presented above, they could even take control over the development of discourse topics. In addition, the two children change topic with nearly equal frequency. However, from this aspect their capacities seemed illustrating no difference despite of their mothers' different conversational behaviors.

4.3 Interaction of Maternal Interactional Styles and Topic Maintenance

As mentioned above, the parents play significant roles in helping the children participate in conversations and maintain conversational topics. In other words, adults are usually the dominant speakers in adult-child conversations. They usually keep conversations going by asking lots of questions, which serve to give the floor to the young participants who might have difficulties conforming to the same conversational topic and not yet fully acquire the competences of turn taking and topic maintaining. Besides the immature conversational skills, distraction and impatience of children could occur in occasion and make it even harder for them to maintain conversational topics. In the conversational exchanges, the mother's intention to engage the child in the

conversations thus becomes significant for the child. It could be expected that if the mother is less interested in encouraging the child's participation in the conversation, maintaining of topics and continuing of conversations would be more difficult for the dyad.

In section 4.1, results regarding maternal interactional styles revealed LIN's mother's frequent intention of controlling LIN's physical behaviors. In addition, as presented in section 4.1.2, LIN's dyad maintained topic episodes with shorter length in average than LJW's dyad. Combining these results with the mother's dominant role in maintaining interactions, LIN's mother's directive intention was thus more vivid. What follows is a typical example of LIN's dyad:

(9) LIN is handing a glove.

- 1 *MOT: 這是什麼?
'What's this?'
- 2 *LIN: 手帕.
'Handkerchief.'
- 3 *MOT: 手什麼?
'Hand what?'
- 4 *LIN: 手帕.
'Handkerchief.'
- 5 *MOT: 不是手帕 # 是手 -: 套.
'It's not a handkerchief, it's a glove.'
- 6 *MOT: 好可怕 [= put the glove on LIN's hands].
'Frightening.'
- 7 *MOT: /e//e/不要弄啊.
'Don't do that.'

After questioning LIN what the thing that LIN was handing is, LIN's mother turned to pay attention on what LIN was doing instead of eliciting LIN's further maintaining of the topic, which resulted in a short passage of conversational topic. As reported in McDonald and Pien's (1982) study, mother's desire of controlling her child is negatively related to the desire of eliciting her child's conversation. Being more directive than LJW's mother in terms of the interactional style, LIN's mother was thus less interested in engaging LIN's participating in conversation. Regarding maintenance of discourse topics, LIN's mother's underlying intention, controlling LIN's physical behaviors, drove her to control LIN's behaviors at times even when she was engaging LIN in conversations. At most of the times, these directive utterances were in turn followed by LIN's physical reactions rather than verbal replies. Here it should be noted that there were still topic-maintaining directives observed in the data. It's not directives itself that were obstacles for continuing topics but the very nature of directives—to request for physical reactions. In the face of directives, LIN might response with commanded actions or merely being ignorant to the requests. In either ways, topics that the dyad was previously attended to were very likely to be discontinued.

As for LJW's dyad, what were commonly observed in the data were LJW's mother's constant elicitations, particularly questions which elicit one single piece of information at a time. What presented below is one of the examples as to how LJW's dyad maintained topics through great numbers of speaking turns:

(10) LJW's mother is asking LIN about what should be done before going to school in the morning.

1 *MOT: 要去上學呢.

'How about going to school?'

- 2 *MOT: 早上要怎麼樣?
'What do you have to do in the morning?'
- 3 *MOT: 準備去上學了對不對?
'Be ready for the school, right?'
- 4 *LJW: 要起床.
'I have to get up.'
- 5 *MOT: 要先起床對不對?
'You have to get up, right?'
- 6 *MOT: 然後跟爸爸說什麼?
'And say what to Daddy?'
- 7 *LJW: 早安.
'Good morning.'
- 8 *MOT: 對了.
'Right.'
- 9 *MOT: 還有跟誰說早安?
'And say good morning to who?'
- 10 *LJW: 媽媽.
'Mommy.'
- 11 *MOT: 對 - : .
'Right.'
- 12 *MOT: 然後呢?
'And?'
- 13 *MOT: 起床第一件事要做什麼啊?
'What is the first thing you do after you get up?'
- 14 *LJW: ^+, 要刷牙.
'Brushing the teeth.'
- 15 *MOT: 還有勒?
'And?'
- 16 *LJW: 還有洗 <澡> [?].

- ‘And taking a shower.’
- 17 *MOT: 還有勒?
‘And?’
- 18 *LJW: 還有漱口.
‘And rinsing the mouth.’
- 19 *MOT: 還有勒?
‘And?’
- 20 *LJW: 還有上廁所.
‘And using the toilet.’
- 21 *MOT: 對了.
‘Right.’

The above example is merely a portion of passage taken out from a topic episode, lasting for 34 speaking turns in total, to which LJW and her mother devoted. LJW’s mother kept asking questions that allowed LJW to follow the topic ‘what to do in the morning’. From line 13 to 20 it can be seen that by appealing to identical questions that requested for one single piece of information, LJW’s mother successfully elicited LJW’s continuous following responses. In addition, in the line 2-3 adjacency pair, LJW’s mother began with a test question ‘what do you have to do in the morning’ in line 2 and turned the answer ‘be ready for the school’ to that test question into a report question ‘be ready for the school, right’ in line 3. Although in line 3 LJW’s mother was actually providing the answer herself, turning of the answer into a report question had two functions: concerning information-requesting and the child’s knowledge, it provided the requested information for the child to be informed; concerning conversational exchange and the child’s communicative capacity, it provided a floor for the child to take. By means of such kind of elicitation, the child could easily maintain the topic with a minimal reply ‘yes’ and be

informed at the same time. LJW's mother's adopting report question in such way was observed at times, which might be illustrated by her more frequent use of report question than LIN's mother and explained by her intention of elicit LJW's conversation.

Results of the average number of speaking turns devoted to the same conversational topic by the two dyads showed that the average number of speaking turn with a topic episode maintained by LJW's dyad was significantly greater than that maintained by LIN's dyad. Although such a difference in their interactions might be explained by the mothers' conversation-eliciting / directive intentions, it's also likely that the children's performance of topic-maintaining could explicit such a difference. It could be expected that if the child frequently discontinued the discourse topic engaged previously, the average length of a topic episode would become short. In order to come up with a clearer picture of the two dyads' interaction, the dyads' rate of topic change should be taken into consideration.

In daily adult-to-adult conversations, it is usually the case that in one way, the two participants cooperate to establish a stretch of conversation containing propositionally inter-connected utterances, or say a topic episode in our study. In the other way, adult participants frequently shift topics as well due to factors going beyond conversation itself such as social considerations and individual preferences. Such underlying motivation, to continue discourse topics, also works for adult-child conversation, particular from the parents' perspective. One distinct characteristic in adult-child dyad is that since the young child is linguistically and developmentally inferior to the adult conversationalist, the adult one usually becomes the dominant speaker. In our current study focusing on mother-child conversation, this kind of conversational dominancy is rather important in a way that the

mother dominances the conversation in order to encourage the child's participation and improve his or her conversational skills. Such underlying conversation-continuing motivation might thus explains the low rate of topic change in both dyads presented in table 8 :

Table 8 Comparisons of the two Dyads' rate of topic change

	LIN	LIN's Mother	LJW	LJW's Mother
Topic				
Maintaining Utterances	460	1185	999	2847
Topic Shifting Utterances	66	131	104	78
Total Utterances	526	1316	1103	2925
Rate of Topic Change	12.5%	9.9%	9.1%	2.7%

In general, comparison within a dyad indicated that in general the children changed topic more often than their mothers, conforming to results presented in the previous studies where the children were found to have hard times devoting themselves to the same discourse topic and required the parents' help in the conversational interactions (Foster, 1982; Wanska & Bedrosian, 1986; Huang, 2004).

In addition, as reported in section 4.1.2, comparison of the two mothers' rate of topic change indicated that LIN's mother changed topic much more often than LJW's mother.

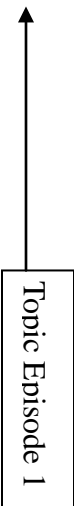
Combining this result together with the two children's equivalent rate of topic change and the shorter average length of LIN's dyad's topic episode presented in section 4.1.2, at this point it is plausible to reason that the higher rate of LIN's mother's topic change led to the shorter length of topic episode. In order to obtain the picture of *how* topic episodes were ended by LIN's mother's frequent topic change, the two mothers' communicative intents in topic-changing utterances that ended topic episodes were further examined and the results are presented in table 9:

Table 9 Mothers' speech category in topic-changing utterances that ended topic episodes

		LIN's Mother	LJW's Mother
Directives		17(39.5%)	7(10%)
Questions	Repairs	0 (0%)	0(0%)
	Test Questions	10(23.3%)	12(17.1%)
	Real Questions	5(11.6%)	9(12.9%)
	Verbal Reflectives	0(0%)	0(0%)
	Action Reflectives	0(0%)	0(0%)
	Report Questions	0(0%)	2(2.9%)
	Permission Requests/ Offer of Helps	2(4.6%)	5(7.2%)
	Total	17(39.5%)	28(40%)
Prompts		2(4.6%)	7(10%)
Attention Devices		1(2.3%)	15(21.4%)
Responses to Question/Directives		0(0%)	0(0%)
Acknowledgements		0(0%)	0(0%)
Declaratives		6(13.9%)	13(18.5%)
Total		43(100%)	70(100%)

As presented in table 9, repairs, verbal reflectives, action reflectives, responses, and acknowledgements were absent in both mothers' topic changing utterances that ended topic episodes due to their very nature of depending on immediate preceding utterances. Both mother used questions frequently when ending discourse topics. These questions could serve to initiate new topics and provide their children floors to take and new topics to be maintained. However, while the frequency of directives in LIN's mother's topic-changing utterances that ended topic episodes was equivalent to the frequency of questions, that of LJW's mother's topic-changing utterances that ended topic episodes was much lower. In addition, compared with LIN's mother, LJW's mother used much more attention devices when ending topics. Many of these topic ending attention devices served as both (a) the utterances that ended the immediate preceding topic episode and (b) the beginning of new topic episode. In other words, besides adopting many questions, LJW's mother also used many attention devices to establish joint attention when she was about to initiate new topics for LJW. The data also suggested that these attention devices often succeeded to open a new topic episode for the dyad:

(11) LJW is holding a book and pretending that it is an ice cream.

- 
- 1 *LJW: 0 [= pretending that she is eating an ice cream].
- 2 *MOT: 好不好吃?
'Does it taste good?'
- 3 *MOT: 有沒有猴子的味道?
'Does taste like a monkey?'
- 4 *LJW: 0 [= nodding].

- 5 *MOT: 有喔.
'Yes.'
- 6 *MOT: 真好騙.
'You are easy to fool.'
- 7 *MOT: 好 # 來.
'OK, here.'
- 8 *MOT: 我們再來看看還有什麼.
'Let's see something else.'
- 9 *MOT: 這個我們剛剛已經看過了.
'We've already seen this.'
- 10 *MOT: 裡面還有貝殼耶.
'There are shells.'
- 11 *LJW: 嗯.
'Yes.'

Topic Episode 2

In example (11), LJW was pretending that she was eating an ice cream in the first topic episode. After several conversational exchanges including questioning and commenting, LJW's mother ended the topic episode of pretend play and initiated a new topic by adopting an attention device in line 7. According to the model of a topic episode in our study, when a new topic is introduced by a speaker, it does not necessarily open a new topic episode since it could be discontinued by the same speaker's following utterance within the same speaking turn or discontinued by the other speaker's immediate following utterance. Back to the current example, the attention device in line 7 strengthened the joint attention and signaled a change of focus for LJW. What were

brought into the conversation by LJW's mother was then acknowledged by LJW in line 11, establishing a new topic episode.

For LIN's mother, occurrence of directives (39.5%) within topic-changing utterances which ended topic episodes was not only much more frequent than those within all her utterances (19.6%)⁴ but also the most frequent speech category compared with the other adjacent categories in table 8, suggesting that it's plausible to blame directives to be for topic-changing and the shortness of topic episode in conversations between she and LIN. Although the occurrence (10%) of directives within topic-changing utterances which ended topic episodes for LJW's mother was also slightly more frequent than those within all the utterances (5.9%)⁵, in LJW's mother's topic-changing utterances which ended topic episodes, it was *attention device* that occurred the most frequently.

Close investigations into LIN and LJW's mothers' speech category within topic-changing utterances which ended topic episodes further illustrated different conversational intentions of the two mothers: LIN's mother changed discourse topics frequently due to her paying attention on LIN's physical behaviors rather than the conversation itself. As the conversation flew, LIN's physical behavior caught her eyes at times, resulting in her occasional directive utterances that served to constraint LIN's behaviors and tell her about what to or not to do, which were in turn very likely to discontinue discourse topics. LJW's mother, on the other hand, due to her intention of eliciting LJW's conversation, paid more attention on the joint attention between LJW and her when changing conversational topics.

⁴ Refer to section 4.1.1.

⁵ Also refer to section 4.1.1.

Chapter 5

Discussions

In this chapter, characteristics in the two mother's interactional styles, the two children's topic-maintaining, and the two dyads' interaction are discussed related to previous studies in section 5.1. In section 5.2, a general picture for each dyad's interaction is depicted.

5.1 Comparisons with Previous Studies

In McDonald and Pien's (1982) study, a clear polarization into directive / conversation-eliciting of the mother's intention was reported. In our study, in terms of the speech level, investigations of the two mothers' speech categories and conversational parameters revealed that while the conversational behaviors of LIN's mother conformed more to the directive polar, LJW's mother conformed more to the conversation-eliciting polar. Here it should be noted that McDonald and Pien distinguished merely two polarized interactional styles but in Olsen-Fulero's (1982) study a mother's interactional style could fall into the directive / conversation-eliciting continuum. According to the data, instead of labeling the two mothers absolutely as *directive* and *conversation-eliciting* mother, LIN's mother was considered more directive than LJW's mother and LJW's mother was considered more conversation-eliciting than LIN's mother. As for LIN and LJW, examinations of communicative intents within topic-maintaining utterances revealed that the two children shared several characteristics, including frequent uses of responses and informatives, suggesting their needs for the mothers' elicitation, particularly questioning elicitation, and their being less interactive, as pointed out in Huang's (2004) study. In addition, in terms of topic collaboration / topic incorporation in

topic maintenance, quantitative and qualitative analysis indicated that although they relied heavily on their mother's elicitations and were usually dominated by their mothers, they were both able to participate in varieties of discourse topics, incorporate new materials, and contribute more to conversations than their mothers. All these results regarding communicative competences of the two children seemed to imply that with their older age and increasing conversational skills, their mother would become less dominant and less controlling in the conversational interactions (Foster, 1982; Huang, 2004).

Foster (1982) pointed out that mothers' scaffolding by routine structure seemed to be irrespective of maternal style since maternal topic maintenance increased with the age of the child and was unrelated to a conversation-elicitation vs. directive style on the part of the mother. Nevertheless, in our study by investigating differences of the two dyads' interactions, where the two children were found to have almost equivalent topic-maintaining capacities and their mothers displayed distinct interactional behaviors, it seemed that topic maintenance was related to the maternal interactional styles.

Although LIN and LJW displayed equivalent topic-maintaining competences regardless of their mothers' distinct conversational behaviors at the specific point of time, it might turn out that LIN and LJW's development differ at a later point of time. Such possibility is supported by studies regarding Vygotskian theory (Vygotsky, 1978).

Vygotskian Theory suggested that social interactions trigger an individual's internal processes during ontogenesis. In addition, the Vygotskian perspective is also concerned with the *zone of proximal development*. The zone of proximal development refers to the difference between the child's actual level of development and the level of performance

that he achieves in collaboration with the adult (Rieber & Carton, 1987), or the relationship between the skill level spontaneously demonstrated by children versus their potential skill level, which is demonstrated only under conditions of external prompting and guidance (McCabe and Peterson, 1994). In such a view, the mother's scaffolding becomes rather important for the child in social interactions. Investigating children's narrative development, McCabe and Peterson (1991) found that children of parents with a topic-extending, elaborative style produced longer and more detailed independent narratives one year later than did children of topic-switching parents. In addition, Fivush (1991) reported that children whose mothers used a great deal of orienting and evaluative devices also used these devices often in their independent narratives one year later. Relating the Vygotskian interpretation to the present study, in spite of the equivalent topic-maintaining competences at the present time, LIN and LJW might display distinct topic-maintaining competences in a later time.

Regarding the conversational interactions, LJW's dyad maintained significantly longer topic episode than LIN's dyad. Since the rate of topic change of the two children was the same, we could conjecture that such difference of topic maintenance among the two dyads was attributed to their mothers.

In our study, examinations of the two mothers' interactional styles and the two dyads' topic maintenance revealed clusters of conversational behaviors for the two dyads: LIN's mother had a more directive intention, often controlled or directed LIN's physical action, changed topics frequently particularly with directives, and had less interest in engaging LIN in maintaining topics; LJW's mother had a more conversation-eliciting intention, often elicited LJW's verbal responses, seldom changed topics, changed topic

particularly with attention devices, and had greater interest in engaging LJW in maintaining topics. McDonald and Pien (1982) indicated that a mother engaged in conversation elicitation might choose to use device such as the maintenance of a salient topic to maximize the child's interest in the conversation, while mothers motivated by a directive intention would presumably have little or no interest in topic devices. The two clusters revealed in our study were generally consistent with what were reported by McDonald and Pien (1982) except for the relationship between the use of attention devices and maternal interactional styles. Their argument was that since the child in the process of being directed is not intensively involved in ongoing conversational exchange, his attention is not easily accessible to the mother. She may thus resort to the use of attention-getting devices which would be unnecessary for the mother engaged in conversation with her child. However, our data showed that being a conversation-eliciting mother, LJW's mother appealed to more attention devices than LIN's mother did, particularly when changing topics. In order to explain such a finding that is contrary to McDonald and Pien's, contexts where LIN and LJW's mothers' adopted attention devices were investigated. Surveys revealed that while LIN's mother usually used attention devices in the free play and meal time, LJW's mother did so usually when the dyad was reading. As presented in section 4.2, book-reading was a context where readily accessible materials for joint attention were provided. This suggested that for a conversation-eliciting mother, the child's attention was still not accessible enough even when there were materials in hands that should have caught the child's attention. Motivated by such a consideration, LJW's mother thus adopted attention devices to ensure her child's attention on the ongoing conversational exchange, especially when she

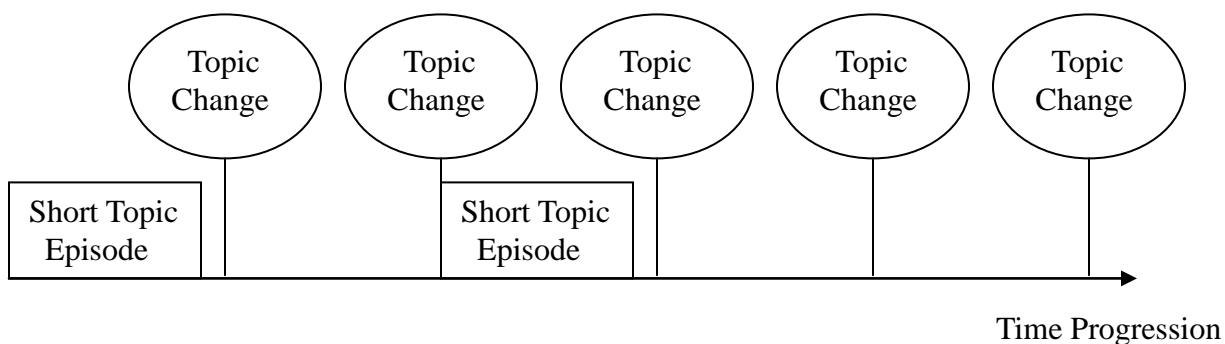
was about to change topics. As for LIN's mother, less interest for attention devices might be attributed to the motivation of controlling the child's physical actions rather than maintain the child's focus.

In sum, the present study presents ways how maternal interactional styles interacted with the dyads' topic maintenance. To echo the research question brought out in section 1.2, the data suggested that for a dyad with a directive mother, continuing of conversations was more likely to be overlooked due to the mother's intention of controlling the child's physical behaviors. For a dyad with a conversation-eliciting mother, maintaining of interactions, particularly topic maintaining, was of great concern and reflected by the mother's continuous elicitations. Considering maternal language inputs and child language development, investigations of the data also revealed that while the mother's influence on the child was examined, possibilities of the child's influence on the mother should also be taken into considerations. This finding is thus conformed to Yoder and Kaiser (1989)'s study in which a bidirectional influence model of social interactions was proposed.

5.2 General Pictures for the two dyads' Interactions

In this section, a general picture for each dyad's interaction is depicted in terms of topic-maintenance. As mentioned above, regarding the two dyads' interactions at the conversational parameter level, LIN's dyad maintained shorter topic episode and changed topic frequently, and LJW's dyad maintained longer topic episode and changed topic less frequently. After closely investigating the data and going beyond the basic analytic unit, namely topic episode, we came up with a general picture of interaction for each dyad. Interaction of LIN's dyad is presented in the following figure:

Figure 4 General Picture of Interaction for LIN's dyad

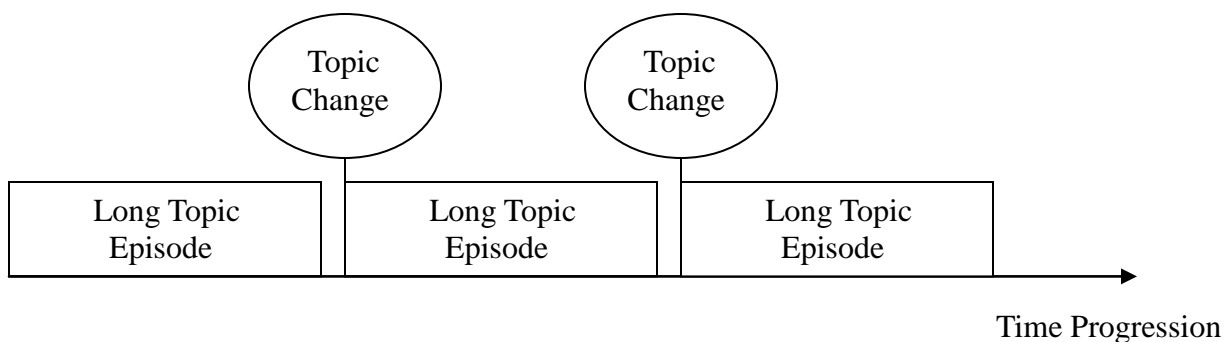


In figure 4, the square represents topic episode and the ellipsis represents topic change.

The figure illustrated that short topic episodes were often found in LIN's dyad's conversational interaction. In addition, due to LIN's mother's frequent topic change, situations where topics introduced by LIN's mother were changed by herself before it was continued by LIN were also common in the data, represented by the successive ellipses without any intermediate square. Besides short topic episode and frequent topic change, figure 4 also suggested that the conversational interaction of LIN's dyad was scattered in a way that the whole conversation consisted of short topic episodes that were apart from the others, utterances with topics which were not maintained by the other participants, and topic-changing utterances. Such a configuration could be explained by LIN's mother's intention of directing or controlling LIN's physical behaviors in the ongoing conversational exchange.

In the other way, picture of LJW's dyad's interaction is presented in figure 5:

Figure 5 General Picture of Interaction for LJW's dyad



Contrary to LIN's dyad, long topic episodes and seldom topic change were found in the conversational interaction of LJW's dyad. When new topics were introduced by LJW's mother, they were usually kept continued by LJW's mother till they were successfully maintained by LJW. Besides long topic episodes and seldom topic change, this figure suggested a neat structure for the whole conversation of LJW's dyad, consisting of topic episodes that were adjacent to others, and topic changing utterances that ended old topic episodes and opened new topic episode at the same time. Based on the results of conversational behaviors presented in the previous section, such a configuration could be related to LJW's mother's constant elicitations in the conversational interaction.

Chapter 6

Conclusion

In this chapter, remarks about maternal interactional styles revealed in this study and its relationship to the topic maintenance in the mother-child interaction are presented in section 6.1. Section 6.2 discusses the limitation of our study and suggestion for future research.

6.1 Concluding Remarks

As pointed out by McDonald and Pien (1982), determination of maternal underlying intention would be inferable from patterning of illocutionary acts of mothers. In our study, by investigating the illocutionary force and conversational characteristics of the two Mandarin-speaking mothers' utterances, their underlying intentions were revealed. While LIN's mother's conversational behaviors were found to be more directive and tended to direct or control LIN's physical behaviors, LJW's mother's conversational behaviors were found to be more conversation-eliciting and tended to engage LJW in the conversations.

Investigations of the communicative intents in topic-maintaining utterances showed that LIN and LJW displayed similar communicative capacities. Provided with their mother's elicitation, they were capable of maintaining different types of discourse topic in a variety of context. Regarding the two dyads' conversational interactions, LIN's dyad maintained topic episode with less speaking turns, and LJW's dyad maintained topic episode with more speaking turns. In addition, while LIN and LJW changed topics with a similar frequency, LIN's mother changed topic much more often than LJW's mother.

Results in our study also revealed that there seemed to be a cluster of conversational

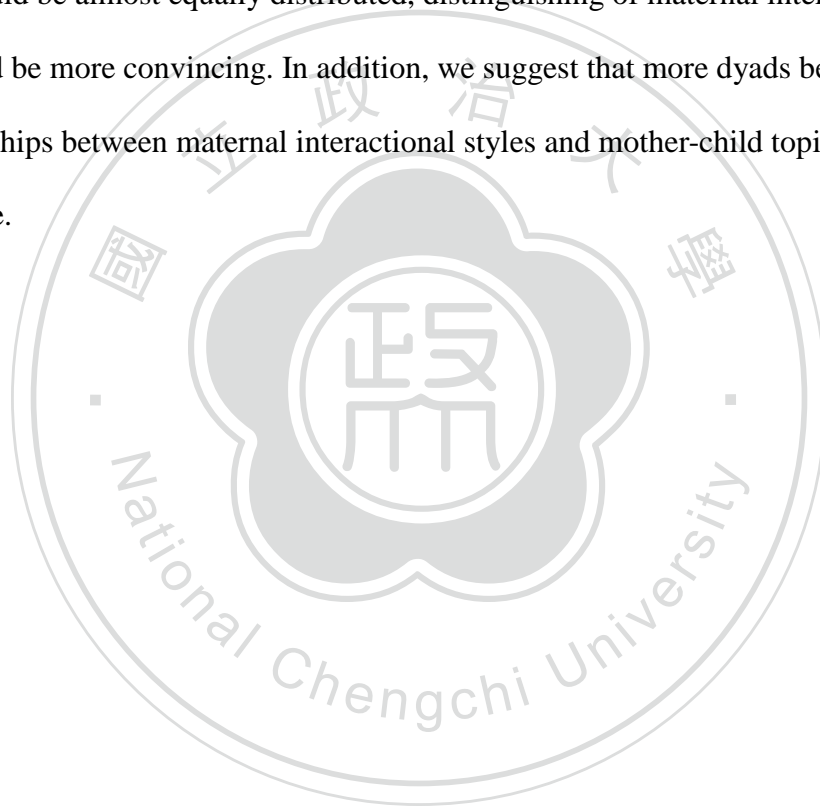
behaviors for each mother and the dyad. While the mother had more intention to direct and control the child's physical behaviors, frequently changed topics, and maintained shorter topic episodes in LIN's dyad, the mother had more intention to elicit the child's conversational participations, seldom changed topics, and maintained longer topic episodes in LJW's dyad. Contrary to McDonald and Pien (1982)'s findings, appealing to attention devices, particularly when changing topics, was observed in LJW's mother's utterances. Although McDonald and Pien (1982) pointed out that it was unnecessary for a conversation-eliciting mother to resort to attention devices, difficulties for the child to maintain topics seemed to be the motivation for a conversation-eliciting mother to ensure the child's attention by resorting to attention devices. Finally, picturing of the general configuration for each dyad's whole conversation illustrated a scattered picture for LIN's dyad and a neat picture for LJW's dyad, respectively.

In sum, our study provided a way in which the interaction of maternal speech styles and topic-maintenance was investigated in Mandarin mother-child conversational interaction. We hope that this study could pave a way for future studies regarding relationships between maternal interactional styles and the child's communicative competences.

6.2 Limitations and Suggestions

In McDonald and Pien's (1982) study, it was suggested that the mother's conversational behaviors might change with the child's growing age and competences. Recognizing such a possibility for instability of the mother's conversational behavior, Olsen-Fulero's (1982) thus proposed that cross-time stability be considered before maternal interactional styles are determined. In our study, data examined was located at a

single point of the child's age⁶. If the same analysis could be conducted with the same subjects at a later point of time, whether the two mothers' distinct interactional styles are stable across times or not would be clarified and the interaction of maternal interactional styles and topic-maintenance in conversational interactions would be further evidenced. In addition, activities and contexts of the conversation could also influence the two mothers' speech, affecting results of the maternal interactional styles. If activities and contexts could be almost equally distributed, distinguishing of maternal interactional styles would be more convincing. In addition, we suggest that more dyads be studied for the relationships between maternal interactional styles and mother-child topic maintenance.



⁶ Around 3 year-old.

Appendix: CHAT Symbols

Period	.
Questions	?
Exclamation	!
Trailing off	+...
Interruption	+/.
Quick Uptake	+^
Self-completion	+,
Other-completion	++
Quotation Mark	["]
Best Guess	[?]
Explanation	[=]
Overlapping Utterances	[>][<]
Retracing without Correction	[/]
Retracing with Correction	[//]
Unintelligible Speech	xxx
Untranscribed Material	www
Pause	#
Action without Speech	0

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