

# Joint Attention in a Father-Child-Mother Triad: A Chinese-American Case Study

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*This paper presents an exploratory study of joint attention in a father-child-mother triad in a Chinese-American family. The study examines how the parents of a two-year-old child elicit and sustain the attention of the child during mundane activities such as playing an educational game and telling a story. In the activities, triadic interactions are fostered by the following factors: (1) the arrangement of artifacts and spaces for participant interactions; (2) the blending of artifacts of western culture with Chinese culture; (3) the complementary roles of the parents with respect to the input they provide to the child; (4) the use of affective morphology to convey intersubjectivity and shared knowledge; and (5) the use of nonvocal linguistic cues such as gestures and eye gaze. These factors interactively contribute to joint attention, which constitutes an essential part of a child's language development, social cognition, and cultural learning.*

## INTRODUCTION

Attention is a socializable phenomenon that usually begins very early in a child's life. Language is presumably and ineluctably used as an essential tool for socializing attention, whether it is used vocally in the form of verbal utterance or nonvocally in the form of body gestures. One noted strategy for socializing attention, which employs both verbal and gestural (nonvocal) language, is triadic interaction. Barton & Tomasello (1991) investigate joint attentional interactions among family members through videotaping nine 19-month-old infants and nine 24-month-old infants in free play with their mothers and preschool-aged siblings around common activities. The results show that in their interactions, triadic conversations are almost three times longer than dyadic conversations, and they elicit twice as many infant turns per conversation. These results suggest that a triadic context differs from a mother-infant dyadic context in that it provides a richer language learning environment than previously supposed.

The current exploratory study investigates attention socialization of a Chinese-American infant through interactions between her and her parents. Such triadic interactions in two activities, i.e., playing a puzzle game and telling a

story, were videotaped to examine how the parents elicit and sustain the attention of their child in these activities.

## PARTICIPANTS AND SETTING

The participants in this study are members of a Chinese-American family consisting of a father, a mother, and a daughter. The father is a postdoctoral fellow in the field of engineering at a major university in California, and the mother is a college graduate who does not work outside the home. She takes care of her daughter at home. The daughter was twenty months old at the time of the game activity, and she was twenty-four months old at the time of the story activity.

The participants live in a university family student apartment near campus. Their residence reflects a blend of Chinese culture and western culture.<sup>1</sup> There are two western-style sofas in different corners of their living room. The room is also equipped with modern appliances such as a television and a stereo system. There are two scrolls hanging on the wall. Each of them consists of picturesque calligraphy in Chinese brush. Together they form a couplet that constitutes the aphorism: "Discipline oneself; Have a clear conscience." This aphorism connotes the epitome of Chinese cultural value and shared belief. It is a common practice in Chinese culture to transform 'words of wisdom' into an artistic display as a constant reminder of the Chinese way of thinking. The living room, the dining room, and the kitchen are all kept immaculate, with no toys lying on the floor, no crumbs on the tables, and no stains on the walls.

The child's bedroom is, on the other hand, diametrically opposed to the public quarters of the residence. The walls in her room are ornately adorned with colorful pictures, animated cartoon figures, various shapes of numbers and letters, and custom-framed photographs of the child at different stages of her growth. The edge of her bed against the wall is arrayed with a menagerie of stuffed animals. The floor abounds with toys, games, picture books, and a copious collection of alphabetic materials that reveal the living quarter of an abecedarian. Most of the materials in the child's room are patently western products. The only obviously Chinese influence is the few story books on aquatic plants and animals written in simple Chinese and a wooden puzzle game of numbers in Chinese characters.

The westernized environment vis-a-vis the Chinese environment in the participants' residence exemplifies a Chinese-American family's child rearing practice. It appears to be the intention of the parents to construct a bicultural environment for their daughter so they can provide 'the best of both worlds' for her learning experience. This dovetail of western and Chinese cultures is ostensive in their interactions with her, as depicted in the following sections.

## TRIADIC INTERACTIONS

In this case study of joint attention, father-child-mother triadic interactions in the form of common activities such as playing games, coloring pictures, telling stories, and the like were videotaped. This paper focuses on self-contained segments of two activities, one involving playing a puzzle game and the other, telling a story. In the activities, it is observed that the following factors contribute to joint attention in the triadic interactions: syncretism of cultures, the built environment, distribution of labor, affective morphology, and gestures and eye gaze. These factors are mutually influential and interdependent in the activities.

According to Lawrence and Low (1990), "people both create, and find their behavior influenced by, the built environment....The built environment is an abstract concept employed here and in some of the literature to describe the products of human building activity. It refers in the broadest sense to any physical alteration of the natural environment, from hearths to cities, through construction by humans...it includes built forms...spaces that are defined and bounded, but not necessarily enclosed" (p. 454). Such forms are observed in this study. In the activities, participant interactions are influenced by the built environment in the form of the arrangement of artifacts and spaces.

Figure 1 shows that the built environment for the puzzle game activity is constructed specifically for the intended interaction. The puzzle is arranged in an open space on the living room floor. The participants can sit along all four sides of the puzzle as well as step on it. The parents situate themselves on the same side of the puzzle, and the child sits down on the puzzle between them. This positioning facilitates joint attention. The child can face either parent and be within reach of puzzle pieces at the same time.

In telling a story (Figure 2), the built environment includes a couch in its accustomed place. The child is seated between her parents, which allows both parents to interact with her simultaneously. The other artifacts include the story book that the father is holding and the teddy bear in the child's arms. They serve as tools or props for the reading activity.

Syncretism in the activities involves the blending of artifacts of different cultures, here American culture and Chinese culture. For example, the puzzle pieces are in English letters, and the story is also written in English. However, the participants speak in the Chinese language to play the puzzle game and discuss the story. This syncretic experience facilitates interaction in that the parents are able to introduce the child to the English language by way of the Chinese language. The child learns the Chinese language as her first language. Since she does not attend any day care, her exposure to English is limited to such activities with her parents. By understanding her parents' instruction in



Figure 1. Puzzle Game



Figure 2. Story Telling

Chinese, she is better able to pay attention to her parents and develop interest in the game and the story in the process of acquiring the English language and American culture.

Another factor that contributes to joint attention is the distribution of labor between the parents. The study reveals that the roles of the father and the mother in the activities are complementary with respect to their input to their child. In both activities, the father acts as the content planner and decision maker, while the mother provides suggestions and positive evaluation of the child's performance.

In the puzzle game, for example, the father puts all the puzzle pieces on his side, and he decides which puzzle piece his daughter should work on. The mother assumes the role of coaching her daughter to pay attention to her father's instruction, to respond to his request, and to solve a problem initiated by him. During story telling, the father holds the book and asks his daughter questions about the story in the book. The mother supports the father by providing paralinguistic cues and gestures to her daughter to help her answer her father's questions.

A salient feature that emerges from the triadic interactions is the use of affective morphology by the parents to convey their attitude with respect to praise, warning, agreement, and so forth. Affective morphology is often used to convey a speaker's attitude, feeling, stance, and disposition (Biber & Finegan, 1989; Haviland, 1989; Ochs & Schieffelin, 1989; Ohta, 1994). Affective morphology in the form of particle is used in spoken Chinese. It is an essential part of the Chinese language and culture.

In the Chinese language, an affective particle<sup>2</sup> has a *relational*, rather than a referential, meaning (Hsu, 1995, 1996a & 1996b). That is, it does not have an abstract reference or root lexical meaning. For example, the word 'put' in English has a referential meaning of transferring something (Shirai, 1990), whether it means placing an object in a certain location, e.g., "Put the book on the table," or whether it is used metaphorically, e.g., "Put your trouble behind you." On the other hand, an affective particle often lacks an independent, denotative or referential meaning. It gains its relational meaning by associating with an utterance or proposition in discourse to convey the speaker's affect. Therefore, an affective particle is essentially discourse-dependent, and it is often difficult to pinpoint its meaning without a discourse context. In Chinese culture, affective particles play an important role in interactions among family members and among people who are familiar with one another or who have intimate relationships. Hence, Chinese children acquire the knowledge and the use of affective morphology at a very young age through language socialization. Such socialization process is also present in other cultures (e.g., Ochs, 1986 & 1988).<sup>3</sup>

In this study, the parents use affective particles such as *o* and *a* in the activities to elicit and maintain the child's attention. Take, for instance, the puzzle game activity. In this activity, the participants are playing a puzzle game

in the living room. A puzzle mat and many puzzle pieces of letters and numbers are laid out on the floor (see Figure 1). The game involves fitting the pieces of letters and numbers into the puzzle mat. During the game, the parents use English to call the letters in the English alphabet, and they use Chinese to call the numbers in Roman numerals. Although the child hardly speaks in this activity, she is attentive to her mother's use of affective particles, as evident in her nonvocal interactions and responses to her parents in the following excerpt.<sup>4</sup>

### Excerpt 1: Puzzle Game

Ch: Child (20 months old)  
 Fa: Father  
 Mo: Mother

- 01 Mo [*ling fang nali*  
 zero place where  
 "Where does zero go?"
- 02 Ch [((takes the puzzle piece '0' from her father's hand))
- 03 → Mo [*ziji zhaozhaokan o::*  
 self look-around AP  
 "Look for it yourself."
- 04 Ch [((fits '0' in the correct slot))
- 05 [((turns around and looks at her mother))
- 06 Mo [([*zhaozhaokan*)  
 look-around  
 "Look for it."
- 07 Fa [*hm*
- 08 → Mo [*ei::* [*ya xiaqu a::*  
 ri::ght press down AP  
 "Right, press it down."
- 09 Fa [( ) *ya*  
 press  
 "Press it."
- 10 Mo [*zenme qiaoqilai*  
 why stick-up  
 "Why's it sticking up?"
- 11 Ch [((presses '0' down))
- 12 Fa [*huh?*

- 13 → Mo *he:: hao bang o:::*  
ri::ght very good AP  
"Right, good job."
- 14 (0.5)
- 15 Fa *yayiya (.) yayiya ((presses 'O' down))*  
press press  
"Press it down, press it down."
- 16 ((pushes 'O' down with a bang))
- 17 *na hai you ne*  
then still exist INT  
"How about some more?"
- 18 *'A' ne ((hands the puzzle piece 'A' to the child))*  
'A' INT  
"How about 'A'?"
- 19 Mo *'A' zai nali*  
'A' LOC where  
"Where's 'A'?"
- 20 Fa 'A':
- 21 Mo *zhaozhaokan*  
look-around  
"Look for it."
- 22 Ch ((takes 'A' from her father))

In line 03, the mother adds the particle *o* to her instruction to her daughter, "Look for it yourself." This emphatic particle functions as a friendly warning or command. The daughter responds to her mother by fitting the puzzle piece 'O' in the correct slot (line 04). In line 08, the mother again tags an affective particle to her instruction to her daughter, "Press it down." The particle *a* in this line also has an emphatic function. In this case, it intensifies or emphasizes the urgency/importance of the command or request. Hence, line 08 can alternatively be translated as follows: "Right, go ahead, press it down, won't you?" In response to the request, the daughter presses 'O' down (line 11). After the daughter performs as desired by her mother, her mother praises her by saying, "Right, good job," followed by the particle *o* (line 13). In this case, the particle *o* following a praise intensifies the praise, and hence, shows solidarity between the participants.

Affective particles are also used in the story telling activity as denoted in boldface in the following excerpt.

## Excerpt 2: Story Telling

- Ch: Child (24 months old)  
 Fa: Father  
 Mo: Mother
- 01 Mo    *wai[mian zenme le* ((points at a picture))  
          outside how ASP  
          "What's going on outside?"
- 02 Fa            [*waimian zenme le*  
                   outside how ASP  
                   "What's going on outside?"
- 03 Mo    [*xiao xiong xiong*  
           little bear bear  
           "Little bear..."
- 04 Ch    [*xue:::*  
           sno::w  
           "Snow."
- 05 Fa            [*xia xue le*  
                   fall snow ASP  
                   "It's snowing."
- 06 → Mo        [*xia xue le o::*  
                   fall snow ASP AP  
                   "It's snowing."
- 07 Fa    *huh?*
- 08            *a xiong xiong*  
           then bear bear  
           "Then the bear,"
- 09            (0.5)
- 10            *xiao xiong xiong gen xiong mama shuo shenme*  
           little bear bear and bear mother say what  
           "What did the little bear say to the mother bear?"
- 11 Ch    ((puts her teddy bear on her father's lap))
- 12 Fa    [*shuo*  
           say  
           "Say..."
- 13 Mo    [( )]
- 14            *shuo shenme*  
           say what  
           "Say what?"

- 15 → *xia xue hui zenmeyang* ((shakes her fists))  
 fall snow will how  
 "What happens when it snows?"
- 16 (0.3)
- 17 → Ch *leng leng =* ((hugs her teddy bear and looks at her mother))  
 cold cold  
 "Cold."



- 18 → Mo =o[: dui a::  
 AP right AP  
 "That's right."
- 19 → Fa [*leng leng o::*  
 cold cold AP  
 "Cold."
- 20 → *o: hui leng leng shi bu shi*  
 AP will cold cold yes no yes  
 "It's going to be cold, isn't it?"
- 21 Ch *fu::* ((points at the picture))  
 clo:::thes  
 "Clothes."
- 22 → Fa [*o::*  
 AP  
 "I see."
- 23 → Mo [*o:: yao chuan yi[fu o::*  
 AP need put-on clothes AP  
 "I see, he needs to put on clothes."
- 24 → Fa [*xiong xiong yao chuan yifu o:*  
 bear bear need put-on clothes AP  
 "The bear needs to put on clothes."
- 25 Ch (((touches her own clothes)))

- 26 Fa [a jieguo mama  
then result mother  
"Then mother,"
- 27 (0.5)
- 28 xiong mama zuo shenme gei ta dai  
bear mother make what give 3sg wear  
"What did mother bear make for him to wear?"
- 29 (0.5)
- 30 Mo zhe shi shenme ((points at a hat in the picture))  
this be what  
"What's this?"
- 31 zhe shenme dongxi  
this what thing  
"What's this thing?"
- 32 → dai zai tou shang [cai bu hui leng leng ((touches her own head))  
wear LOC head on so not will cold cold  
"You wear on your head so you won't be cold."
- 33 → Ch (((looks at her mother)))



- 34 mao mao  
hat hat  
"Hat."
- 35 Fa [mao mao  
hat hat  
"Hat."
- 36 Mo [mao mao  
hat hat  
"Hat."

In this activity, the participants are sitting on a couch in a father-child-mother triadic position. The father is holding a story book, and the child is holding a teddy bear. All three participants are looking at the pictures in the book and using the Chinese language to discuss the story in English print entitled *What Will Little Bear Wear*. In line 06, the mother uses the particle *o* to show solidarity and agreement with her daughter's answer, "snow," in response to her parents' question, "What's going on outside?" A similar situation can be seen in lines 19, 23, and 24, where the parents echo and expand their child's utterance. They use the particle *o* to show agreement and solidarity.

In lines 18 and 20, the mother and the father respectively precede their utterances with the particle *o* to indicate understanding of the information conveyed by their daughter. This particle is functionally analogous to the lexical phrase, "(Oh,) I see," or "Oh, yeah," as exemplified in line 22. The particle *a* following the word 'right' in line 18 intensifies the agreement. Therefore, the utterance in line 18, preceded by the particle *o* and followed by the particle *a*, can alternatively be translated as "Oh, I see, that's right!" or "Oh, that's right. Exactly!"

As seen in the above activities, affective particles are often markers of intersubjectivity regarding shared knowledge. The parents use these particles to socialize their daughter into common knowledge and to sustain joint attention. The rate of affective particle use in their utterances is relatively high.<sup>5</sup> It represents a form of motherese in Chinese culture. Thus, affective morphology constitutes a *sine qua non* in the child's language development and sociocultural cognition.

In the activities, joint attention is also enhanced by nonvocal interactions. Nonvocal linguistic cues such as gestures and eye gaze are used together with vocal language to maintain joint attention. For example, in line 10 of excerpt 2 (story telling), the father asks his daughter, "What did the little bear say to the mother bear?" The mother then helps out by giving her daughter a hint using a gesture (line 15). She shakes her fists to signal coldness. The daughter responds to her mother by hugging her teddy bear and looking at her mother as she answers in Chinese, "*leng leng*" ("cold"), in line 17.

In line 28, the father asks his daughter what the mother bear in the story has made for the little bear to wear. To sustain her daughter's attention, the mother points at a hat in the picture and gestures to her daughter by touching her own head to indicate wearing a hat. She also hints, "What's this thing... you wear on your head so you won't be cold?" (lines 31 and 32). The daughter responds by looking at her mother (line 33), and then she answers "*mao mao*" ("hat") in line 34.

## DISCUSSION AND CONCLUSION

This paper delineates a case study of joint attention in a father-child-mother triad in a Chinese-American family through observation of activities involving triadic interactions. In the activities, the child's behavior is controlled by her parents. The parents physically and intellectually direct her attention and participation in the puzzle game and in the story telling session through complementary roles. The following phenomena are manifested in the triadic interactions: (1) an environment constructed specifically to foster attentional interactions, (2) syncretism of Chinese culture and American culture, (3) division of labor between the parents in which their respective roles complement each other, (4) use of affective particles by the parents to convey intersubjective and cultural information to their daughter as well as to socialize her into common knowledge, and (5) nonvocal linguistic cues such as gestures and eye gaze to enhance interactions.

Barton & Tomasello (1991) show that the frequency of interactions and conversations in joint attention increases with age. Their analysis is supported by the current study. In the puzzle game activity, the child was younger (twenty months), and she was hardly vocal.<sup>6</sup> In addition, her participation in the joint attentional activity was passive in manner. That is, she merely responded to requests initiated by her parents, e.g., to fit puzzle pieces into the right slots. In the story telling activity, the child was older (twenty-four months). She was vocally expressive on several occasions and participated more actively. In addition to answering her parents' questions, she also initiated her turns, e.g., by pointing out that the little bear needed to put on clothes.

It is not the intention of this study to provide a generalization of language and communication through joint attention and triadic interactions in Chinese-American families. Rather, this study attempts to facilitate our understanding of human interaction in joint attention through observation of a family triad in a bilingual/bicultural setting. It is hoped that the qualitative analysis also provides a suggestion for the application of ethnographic methods to bicultural language socialization.

## APPENDIX

### Transcription Notation

[	beginning of overlapping or simultaneous utterances and/or body movements between participants
(( ))	description of nonvocal/nonverbal action or gesture
→	transcription line for special attention
:	lengthened sound
( )	unclear utterance or uncertain transcription
?	rising intonation
(.x)	.x-second pause
(.)	micropause (less than .3 second)
=	latched utterances between participants

### Interlinear Gloss

3sg	third person singular
AP	affective particle
ASP	aspect marker
INT	interrogative marker
LOC	locative marker

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## NOTES

<sup>1</sup> It should be pointed out that what is viewed as 'Chinese' and what is viewed as 'western' in this study are subject to my own interpretation based on my personal experience as a participant and observer in both cultures. The 'cultural difference' here may equivocally be attributable to a 'public' vs. 'private' distinction from another observer's perspective.

<sup>2</sup> Such a particle has also been labeled 'discourse particle,' 'pragmatic particle,' 'modal particle,' 'interactional particle,' 'final particle,' and the like. In this paper, I use the term 'affective particle' to relate it to its pragmatic function of communicating affective stance.

<sup>3</sup> In her study of Samoan children, Ochs (1988) points out that children are socialized through language and socialized to use language. Ochs (1986) also notes that

children acquire the knowledge of linguistic conventions associated with affect from a very early point in developmental time.

<sup>4</sup> Refer to the appendix for transcription notation and interlinear gloss.

<sup>5</sup> Compared to an adult-to-adult interaction, the rate of affective particle use in a parent-child interaction is often noticeably higher, especially if the child is very young.

<sup>6</sup> The child occasionally produced one-word utterances, e.g., "na" ("take"), when she requested her father to get a puzzle piece. However, in excerpt 1, she was not vocal at all.

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