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Building Understanding: The Construction of Joint Attention in Preschool

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A multi-layered discourse analysis of the interaction of 3- to 5-year-old children in two preschools reveals a highly structured process occurring between the children and their caretakers to build and maintain joint attention. This process, serving to promote socialization into preschool, is constructed through language, gaze, intonation, and physical embodiment.

Introduction

How do adults and children in a preschool setting negotiate meaning and build understanding during their daily interactions? As the intersubjectivity and mutual understanding of participants is necessary for successful interaction, the issue of joint attention must be evaluated in order to examine the grammatical input, as well as the socialization processes, that occur. With the use of videotaped records of daily interaction in two preschools in the U.S. and England, this question is approached with regard to how understanding is built utilizing the multimodal resources of interaction, underpinned by the construction of joint attention. Strategies employed for constructing joint attention in the busy environment of preschool include gaze, linguistic and prosodic information, physical orientation and contact.

Although language, and specifically, grammar, is seen to be paramount to the developing communication systems of children, Ford, Fox and Thompson (2003:120) explain that grammar can be considered as "sets of practices adapted to social interaction" so that "grammar is tightly intertwined with the interactional activities that people are engaged in," and is emergent from discourse as is it constructed and developed. This supports the idea that discourse and interaction supply the foundation for the interdependence of (human) linguistic structure and the environment where it resides. Grammar encodes meaning in specific ways, and interaction is built through mutually recognized involvement.

However, whether very young children comprehend the sometimes highly complex linguistic information that they are exposed to cannot always be determined from observation. Their responses are very often not linguistic in nature, but are formulated as actions within the discourse environment. Examination of

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children's actions-in-interaction reveals that even 3- to 5-year-olds are able to exhibit understanding, compliance, and disalignment through mutually recognized participation with their caretakers.

Mutually recognized involvement can also be called joint attention, which is defined as the process of sharing one's experience of an object or event (Tomasello, 1995). Sharing one's experience with another requires intersubjectivity, the notion that human beings share awareness of each other as "intentional agents" (ibid.). This mutually recognized awareness underpins and drives successful or unsuccessful interaction (Trevarthen, 1979). Verhagen (2005) defines the concept of intersubjectivity as the "ability to experience oneself and view others as mental agents" (p. 4) and notes "grammatical elements and syntactic constructions have systematic, conventional functions in the dimension of intersubjective coordination" (p. 9). That language and its grammatical structure, lexicon and intonation, encode meaning, is not at issue in this study. The question is how these are utilized specifically in the context of discourse, and how, within this context, joint attention serves to underpin the building of understanding.

Methodology

Video data provides rich resources to study face-to-face interactions as well as to examine the contextualized settings in which they occur. As Goodwin (2000:1490) has pointed out, video also captures information about the engagement and orientation of participants whose actions are built through the simultaneous deployment of available semiotic resources. For this study, the examples analyzed were taken from 42 hours of video collected at both a U.K. day care nursery in southwest England and a U.S. preschool in Los Angeles, California. These sites were chosen because of their parallel establishment on Church premises, the similarity of their educational goals, and the relative comparability of the socio-economic backgrounds of the families who utilize the sites for the day care and preschool education of their children (Lowi, 2007). The difference between a day care nursery and a preschool is that a nursery will provide care for babies as well as young children up to the age of five, whereas a preschool will restrict intake to children aged three upwards.

The researcher took the position of an observer in order to film the children, teachers and parents' interactions. The participants' names have been changed to preserve anonymity. The examples were selected to investigate the construction of joint attention as action, to highlight the use of social modals and directives, and represent a small sample of a larger collection transcribed and analyzed from the data. By examining videotape filmed of families and of children and their caretak-

ers at preschool and nursery, it is possible to analyze the processes of negotiation and communication that take place.

Transcription

As Ochs (1979) has noted, the very process of selecting data and transcription forms the first analytical step in the process of any analyses. The multilayered development of transcribing video data requires attention not only to the linguistic information, which in itself is an analytical leap, but also to the actions that take place within the particular physical environment. As the purpose of the study is to investigate the construction of joint attention and the use of grammatical social models and how they are utilized to socialize children into appropriate behaviors, focus in choosing clips for analyses has been upon those interactive moments during which children are observed to engage in sanctionable (punishable) behaviors. The clips are transcribed utilizing the techniques developed in Conversation Analysis (Sacks, Schegloff & Jefferson, 1974, see Appendix A). In order to help distinguish between the two sites and the interactants, it was decided to respect the conventions that the teachers' used at the U.S. preschool requiring the children to address them as Miss "first name." For the U.S. examples, therefore, this convention is utilized, with changed first names. At the U.K. site, the teachers were addressed by their first names by the children. In these transcriptions, the teachers are distinguished as interactants as T (for teacher) "first letter of first name."

Intonational contours have been added to the transcription where the transcription conventions are not able to fully portray the observations in the data. These are especially cogent with regard to the fact that intonation serves to provide additional meaning to utterances-in-interaction. Prosody serves to draw attention, as well as to frame disapproval.

Coding of interactional moves

in addition to intonation, prosody, pitch and vowel lengthening being noted in the transcriptions, frames from the video clips have been reproduced and included in order to provide visual information to display the setting, gestures, and participation frameworks forming the interaction and to underpin analyses. A coding system to describe speech acts and interactional moves was developed along the lines of Ervin-Tripp and Strage (1985) and Genishi & Di Paolo (1982). This coding system enables the interaction to be examined with regard to the underlying function of the utterances and actions, and serves to determine additional information about the interactional sequences that occurred. The codes are denoted in the transcripts by being placed in curly brackets {} (see Appendix B). By coding interactional moves in this way, it will be possible to explore the sequences of interaction that take place, and any patterns that emerge from these observations. Interactional

events that are investigated with regard to constructing joint attention and the use of social modals include displaying understanding, establishing relevant next acceptable behaviors, completing tasks and solving problems. The methodologies used in this study therefore include the processes by which the video data was obtained and the multi-layering of the transcription that underlies all analyses.

Joint Attention

Tomasello (1995) defines joint attention as the process of sharing one's experience of observing an object or event. Enfield (2007) notes that in joint attention "two or more people simultaneously attend to a single stimulus, together, each conscious that the experience is shared" (p. 4). Simultaneous attending to a stimulus can occur when participants create an overlapping spatial and orientational position called an F-formation (Kendon, 1992). In Figure 1, a group of children and adults preparing to engage in making biscuits (cookies) are sitting together at a table. They are orienting and gazing at the teacher who is displaying a cookie cutter. Their F-formation, or "joint transactional space" (ibid.:330), shows how a spatial and orientational position can provide information about what participants are attending to.

Figure 1. Joint Attention at the Table Making Biscuits



Joint attention is understood to be a precursor to a child's development of "theory of mind" (ToM) and the displayed awareness of another's intentions (Bruner, 1995; Dunham and Moore, 1995). Astington (2007) proposes that the development of ToM and language in children are interdependent. Many studies of young infants and children's growing abilities to follow adults' gaze (Corkum and Moore, 1995; Kidwell, 2005), and to point to a jointly viewed object (Desrochers, Morissette and Ricard, 1995; Tomasello, 1995, 2001, 2003), have ascertained that these abilities form the basis for establishing joint attention. The importance of joint attention has been investigated as the grounding for human intersubjectivity (Locke, 2001;

Trevarthen, 1979), as well as an important foundation for language development and understanding word meaning (Adamson and McArthur, 1995; Baldwin, 1995; Dunham and Dunham, 1995). Baron-Cohen (1995) outlines the ontogeny of joint attention by exploring the phenomenon of being aware that someone is looking at you. This awareness of vision has a crucial role in nature, as any creature would want to be aware of being sized up either as a meal or as a mate. The expression that eyes are the "windows to the soul" encapsulates the understanding that direct eye contact and gaze affords participants the opportunity to "see" each other in a way that goes beyond just "looking." From the first attachment of infant and mother through gaze, looking and seeing become vital for the development of human recognition of "other," for social referencing ("the acknowledgment of the presence of a social partner," Sigman and Kasari, 1995:199), interaction, and building understanding. It is important to mention, however, that the development of ToM and joint attention will be influenced by cultural diversity, and not all cultures utilize gaze in the same way (Astington, 2007).

Research in joint attention in babies and toddlers has focused on trying to discover how early a child is able to follow another's gaze as the basis of a developing ability to establish joint attention (ibid.). Experimentally, noting when a child will follow the head turn of an adult establishes that the child is not only aware of this movement, but displays a possible developing understanding of its significance (Butterworth, 1995). Whereas joint attention is thought of as a triadic arrangement of two jointly attending to a third object, as children grow and their experiences of the world expand, joint attention can also be a process whereby attention is being drawn to an action, concept, or even a conceptualized space. This process underpins more complex behaviors that are built on social growth and development.

In the busy world of a preschool, where many actions and activities are taking place, the establishment of joint attention becomes an interactive work-in-progress. Often joint attention can be focused not only upon an object, but also upon an action or perceived possible action. This interactive work-in-progress can involve numerous modalities, including gaze, the orientation and reorientation of physical embodiment, verbal information, and gesture.

The monitoring of another's gaze for responsive action was investigated in very young children by Kidwell (2005) who showed that children 1-2;5 years of age recognize not only gaze from their caretaker that is intended for monitoring actions, but also gaze as a form of control during sanctionable behaviors. The children in Kidwell's study were often in close proximity to the adults, often on their laps or sitting nearby. With older children in preschool, this proximity occurs mainly during particular activities (such as story time, or working together at tables). For this reason, establishing joint attention for the purposes of highlighting sanctionable actions must occur within a larger physical environment, where gaze alone may

not be sufficient to secure acknowledgement. Because of this larger environment, other strategies are employed. These can include response cries, summonses with prosodic weight, linguistic information, bodily movement, gesture, and even physical engagement with the child. Therefore, establishing jointly shared attention with older 3- to 5-year-olds can be a more complex process, and may also involve the overt expression of what is required to do so.

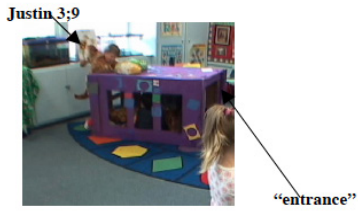
Establishing joint attention should also be examined with regard to the purposes for which actions are taking place. Outcomes within social interaction can depend on whether the purpose for the interchange has been mutually recognized and understood. In the examples that follow, from a larger collection in the data, it will be demonstrated how the various strategies for constructing joint attention are utilized, and how the outcomes of the interaction are determined by the efficacy of the establishment of joint attention.

In the noisy environment of a preschool, much work needs to be done to accomplish goals and to construct mutually recognized and understood communication. For adults interacting with young children, this necessitates the encouragement of the child not only to focus on building the understanding at hand, but to be aware of other modalities, such as vision, and others' points of view. In some cases, establishing gaze must be done explicitly. The importance of gaze with regard to vision, and how vision encapsulates not only how we see the world, but how we talk about it, is coded in language and formulated through action.

Establishing gaze

the act of summoning children's attention by the use of their names serves to establish joint attention, in order to focus on an alternative action (Tomasello, 2000), and to secure gaze for further interaction (Goodwin, 1980). A clear example of an observed violation by the child, followed by a summons by name to secure gaze and joint attention, is given in Example 1, from the U.S. preschool. Sunshine class's Justin (3;9) is climbing up on one side of a cardboard "animal cage." The entrance is on the other side. The teacher, Miss B, is monitoring the children's behavior at one end of the room (from the perspective of the camera).

Example 1. Animal Cage



1		*((Miss B observes that Justin is climbing))*	{OV}
2	Miss B:	Justin,	{SUM}
3	(0.1)	↑↓ *((Justin's turns his face towards Miss B))*	{GZS}



4	Miss B:	Justin=	{SUM}
5		=You need to go around to the other side to get in.	{IREQ/AC}
6		*((Justin stops climbing but does move to other side))*	{UPT}

In this first example, the summons of a child by name follows an observed violation. There is a slight pause (line 3) when Miss B waits to secure Justin's gaze. She reiterates her summons by name once more, and formulates an indirect request for Justin to go round the other side of the animal house to get in. The indirectness of this request formulates an account that provides a solution to Justin's observed sanctionable action. This request also imbeds the understanding that climbing on the animal house is not permitted. Justin's response is a preferred uptake, as he stops climbing. However, he does not attempt to enter the animal house. In the event, it transpires that the children inside the animal house have previously denied Justin entrance, and later Miss B must go and speak to the children about sharing. This example clearly illustrates how securing gaze establishes joint attention to an observed sanctionable behavior, and how the account given within this joint attentional frame serves to obtain the child's compliance.

In the following example at the English preschool, after an observed violation by the child, a response cry and the securing of gaze establish joint attention. During story time, Teacher L sits on the floor with the children seated around her in chairs. This physical orientation allows the teacher to have her level of gaze at the same height as the children's. She has a new book that includes cardboard cutouts of animals to pass out to the children as part of the storytelling. She does not have enough of the cutouts to go around, so the children will have to take turns. TL had begun this activity by asking children who would like to "be" the animal cutout that she displays.

Example 2. Being Story Animals



1 TL:	Who would like to be a pig?	{Q}
2 Harry:	ME! *((Raises his hand))*	{REP}
3 TL:	oh kay,	{RSP}
4	*((Harry gets up to take the cutout from TL))*	{UPT}
5 TL:	Who would like to be:: (.)	{Q}
6 Ella:	ME: :!	{RSP}
7 John:	Me!	{RSP}
8 TL:	What is it?	{Q}
9 Ella:	A Teddy Bear.	{RSP}
10 TL:	Well do:ne. *((gives Ella the cut-out))* Oka:y.	{AS/RSP/ACK}
11	Okay Marla, you'll have one in a minute,	{AN}
12 Mel:	Ooop yoo ooop yoo ooop!	
13	→ *((Mel is goofing around with cutout at Hayden))*	{OV}
14 TL: →	Ah!- (1.0)	{RCRY}
15	→ *((TL secures eye gaze with Mel))*	{GZS}



16	Mel> would you like to give yours to Marla, please.	{SUM/REQ}
17	Off you go,	{DIR}
18	You've got to be good haven't you if you want to join in.	{AS/AC}



19 *((Mel stands up and gives his cutout to Marla))* {UPT}
20 (1.5)
21 *((Mel displays his displeasure by crossing his arms, gazing at TL, and will trip backwards on the seat))* {DSP/GZS}



22 'kay? Sit down please. {REQ ACK/GZS/DIR}



23 *((Mel sits down, arms still crossed))*
{UPT}
24 Right. {ACK/CLO}
25 *((Mel crosses his arms again and is still gazing at TL))* {DSP}

The participation framework in this exchange differs greatly from the preceding example, where the observed behavior took place during free play. In this example, the children are oriented to the adult, who is conducting the storytelling activity. After observing the behavior violation by Mel in line 13, TL, following her response cry in line 14, secures eye gaze with Mel, and establishes a joint attentional frame. She calls him by name in line 16, which in this case is not just a summons, but also a clarification of who exactly she was summoning by her previous response cry. TL makes the request that Mel hand over his animal cutout to Marla, ostensibly a punishment for his behavioral infraction (also in line 16). In line 17, TL strengthens this request by the directive "Off you go" (and do the request). While Mel complies, TL in line 18 gives an accounting, and an explanation, with the use of the social modal "got to" — that being "good" is necessary for "joining in." Mel displays his dissatisfaction with TL's request by the crossing of his arms, and his continued gaze at TL. This response from Mel could be viewed as a kind of challenge, and TL provides a request for acknowledgment and

another (politely) marked directive for Mel to sit down in line 22. Once Mel has completed this action, TL's "Right" in line 24 not only acknowledges the act of Mel's compliance, but also signifies the end to this exchange and the continuation of the storytelling activity.

There are many instances in the data where children's names are employed to summon their attention. There are also cases where the summons is formulated into a more communal nomenclature, directed at a particular group or pair of children, as in the following examples from the American Rainbow class, which is comprised of the older children (4-5 years). In all the examples, establishing gaze is required for establishing joint focused attention on the behavior at hand. Four boys are playing on the carpet with cars and road pieces. Three of them start to slap each other's hands in play.

Example 3. About Hands



1	*((Three boys slap at each other's hands))*	{OV}
2 Miss T: →	My friends>>Rainbow bo:ys,	{SUM}
3	→ *((all stop behavior and turn to face Miss T))*	{GZS}

↑ I



4 Miss T	I need you to remember about hands.	{IREQ}
5	(2.0) *((gazes at boys waiting for response))*	{GZS}
6	'kay? (0.5)	{ACK REQ}
7 Boys	*((boys individually nod))*	{ACK}
8 Miss T:	Oh ye:↑ah.	{REC/ACK}
9	*((boys go back to playing with cars, slapping finished))*	{UPT}

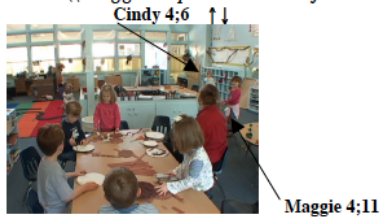
Miss T notices that the boys are slapping each other. She summons their attention with the use of "My friends" and then the communal "title" "Rainbow bo:ys" (the participants are, after all, in the Rainbow Class). The lengthening of the vowel in "boys" emphasizes and indexes which boys, as "My friends" could

be heard as too general an address term for the boys to recognize as referring to themselves. In this case, the social modal *need* is framed as Miss T's need for the boys to remember about hands. This declarative is formulated to infer previously known and inexplicit information about appropriate behavior for children's hands. Miss T is instantiating a practice of socialization about moral and acceptable behavior in the classroom, which does not include slapping each other, even in fun. During the 2-second pause in line 5, Miss T continues to maintain joint attention with the boys. Her question in line 6, "'kay," is intended to secure the children's acknowledgment. Because the boys indicate by their response — stopping their behavior and then nodding in line 7 — the "Oh ye:ah" with its prosodic contour in line 8 displays Miss T's recognition of this acknowledgement from the boys that they remember about hands and what this statement infers. The utterance also indicates her disapproval of their previous behavior. This interchange provides a clear example of an adult's co-construction of joint attention with a small group of children, and how through establishing gaze and attention, acknowledgment can be recognized, and preferred behavior instantiated.

In another example from the U.S. Rainbow class, Miss T sits at a table with five other children working on a monkey-making project. Two girls, Maggie (4;11) and Cindy (4;6) are running and chasing each other at the far side of the room. As part of this interchange, Miss T must reorient her body to observe the sanctionable behavior of the girls and to secure their attention and gaze.

Example 4. Safety Rule

1	*((Maggie & Cindy run and chase screaming))*	{OV}
2 Miss T	*((Turns her head to see the girls))*	{PHRO}
3 Miss T:	→ La:dies!	{SUM}
4	→ *((Cindy stops, is facing Miss T))*	{PHO/GZS}
5	→ Ladies.	{SUM}
6	→ *((Maggie stops and turns to face Miss T))*	{PHRO/GZS}



7	Do I need to remind you about the safety rule?	{Q/REQ}
8 Maggie:	Uh::-no↓	{PRSP}
9 Miss T:	↑Okay. (0.3)	{ACK}
10	Then I won't remind you since you know.	{AS}
11	*((Maggie goes to a table to begin a new activity))*	{UPT}
12 Cindy:	oh, I know,	{REC/AN}
13	*((walks towards Miss T))*	{PHRO}
14	Walking, walking,	{PR}
15	Walking!	{PRR}

Miss T turns her body away from the table, where she is conducting an activity with a group of children, to respond to the sound and movement of two girls chasing each other across the classroom. In this example, as in 4.3, the summons is made twice (lines 3 and 5), the first with the lengthened vowel to stress the term and give it the force of a response cry. Miss T first gains the attention of Maggie, and in the second summons, secures Cindy's (lines 4 and 6). The choice of "Ladies" frames not only the gender of the children Miss T is calling, but also constitutes an incongruent juxtaposition of the actual behavior of the girls with behavior that one might expect from "ladies." Whereas in the previous example, Miss T supplies the boys with a declarative regarding her need that they remember about hands, in this example Miss T asks the girls the question "Do I need to remind you about the safety rule?" (line 7). This request for information is framing the inference that the girls are expected to have previously established knowledge about the safety rule.

In line 8 Maggie responds with "Uh:: no." The first part, "Uh::", with its vowel lengthening, may display a possible dispreferred response, in that perhaps because of their observed behavior, it was obvious that Maggie and Cindy were not following the "safety rule." However, Maggie recovers, and by saying no, acknowledges that she knows what preferred behavior is expected. Miss T acknowledges Maggie's response in line 9, and follows in line 10 with an assessment that recognizes Maggie's display of understanding. In lines 12-15, Cindy not only announces her own recognition, but walks toward Miss T offering an explicit proffer of the previously inferred "safety rule": walking (not running).

Miss T reoriented her body in order to summon, secure gaze and establish joint attention with the two girls. She highlighted their sanctionable behavior and attained their acknowledgement of, and the performing of, preferred actions.

Physical reorientation, gaze and vision

As well as summoning and securing of gaze, gesture, physical embodiment and reorientation are also necessary for the successful construction of joint attention. Securing gaze and joint attention can be more difficult due to the complex play environment in preschool. In the examples from a larger collection that follow, it will be shown how physical orientation and reorientation serve to support the building of joint attention between teachers and children.

In Example 5 from the U.S. Sunshine class, two children John (4;2) and Connor (4;11) are inside a cardboard puppet theater. Both have hand puppets. John is pushing his hand puppet through the corner of the roof of the puppet theater. There is an "audience" of three children, including a child called Gary (3;7) who is seated on the far left. Miss B is working with another child at a table in the middle of the room. Miss J is at the other end of the classroom.

Example 5. Puppet Theater

0 *((Screaming in the background))*
1 John: *((sings and pushes puppet through the roof))* {OV}

2 Miss B: → OK John> John (.) John! {SUM}
3 → *((Miss B moves across the room to orient in front of John in the puppet theater))* {PHRO}
4 → *((secures gaze with John))*{GZS}
5 I know you want to put it up here, {ACK}
↓↑



6 but it needs to come down here, {AC}
↓↑



7 → where they can see it. {EX}
8 (1.0) *((waits and watches for John's uptake))* {PHO}

9 Get on your knees, (.) {DIR}
10 → Get on your knees. (.) They can't see. {DIR/AC}
11 *((John gets on his knees in the puppet theater))* {UPT/PR}
12 Can you make a dancing- k- a dancing= {REQ}
13 *((Gary starts hitting John's puppet))*↑ {OV}
14 =oh Ga:ry, {SUM}
15 *((Gary gazes up at Miss B))* {GZS}

16 we don't hit the puppets. {AC/IDIR}
17 *((John sings, animates the puppet, Miss B orients her body to the actions))* {PHRO}
18 I like that song↑, {AS}
19 ↑*((Gary goes for the puppet again))* {OV}
20 Gary, {SUM}
21 *((Miss B reaches over again to secure gaze))* {PHRO/GZS}



22 Come here>> You're the audience. {DIR/EX}
23 Miss J: The audience just sits with your hands in your lap and watches, ok? {EXP/IREQ}
24 *((Miss B moves over to look at the space between Gary and John's puppet, and moves off back to the table where she was working))* {PHRO}

In this longer piece of interaction, Miss B must move across the room to orient herself in front of John while summoning him three times in order to secure gaze and establish joint attention (lines 2-4). In line 5, Miss B acknowledges John's pushing the puppet up the corner of the roof of the puppet theater as his preferred action. However, she gives the account that it (indexing the puppet) needs to come down here in line 6. Miss B's use of gesture provides interactive information about the desired positioning of the puppet. She supplies an explanation for this need to move the puppets in line 7, "where they can see it", which formulates for the child the concept of vision with regard to a performer and his audience. After watching and waiting for John's uptake, in lines 9 and 10 Miss B directs John to get on his knees twice, in order to complete this action successfully. John's response and uptake is that he follows her instructions.

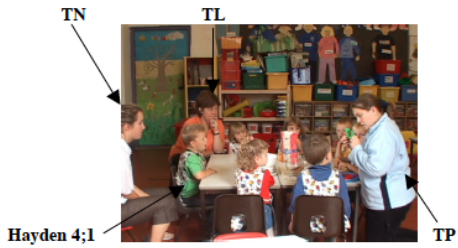
The observation that adults in this complex environment must multitask with regard to monitoring children is displayed in what happens next. In line 12, as Miss B initiates a request to John asking him if he can make the puppet dance, she sees that Gary, sitting in the audience, is reaching over to hit John's puppet. In line 14 Miss B summons Gary and obtains his gaze. With the securing of gaze with Gary accomplished, Miss B formulates the explanation "we don't hit the puppets" in line 16, thus providing an inferred directive for Gary not to hit the puppets. It is interesting that this is constructed as a statement that their collective community (we) doesn't hit puppets, which displays a process of socialization by including Gary within this community. However, in spite of this inferred directive and its implications, Gary can't help going for that puppet again, and in line 20 Miss B must summon Gary once more to re-establish joint attention. This time Miss B reaches down to touch Gary's face in order to ensure that she has secured not only his gaze, but also his attention (line 21). Miss B directs Gary and proffers another explanation for inferred preferred behavior by telling Gary in line 22 "Come here, You're the audience".

Miss J assists and supplies an expansion to this alternative explanation in Line 22 with information about not just what role an audience is meant to play, but the

physical actions that an audience (Gary) is expected to perform: "The audience sits with your hands in your lap and watches, ok?" In this way, the preferred behavior is clarified and made specific for the child, albeit formulated as an indirect request. The reference to vision with regard to audience and performer is reiterated for Gary as part of the audience. He must watch, while John, as performer, must put the puppets "where they can see it". The outcome of this interchange is that Gary sits to watch the puppet show. Miss B moves slowly back to her original position, all the while monitoring the actions of the children.

In Example 6, from the English preschool, physical contact with the child is also necessary in order to establish joint attention. The children are sitting around a table for the purpose of making biscuits (cookies). The ingredients for cooking, as well as the bowls for mixing, the scales for measuring and the cookie cutters for cutting, are on the table. Teacher P is displaying an animal cookie cutter during her explanation to the children of what is to transpire during this activity, while Teachers N and L sit at one end of the table observing.

Example 6. Making Biscuits: Go Somewhere Else



1 TP:		-animal biscuits. *((shows the cookie cutter))*	{DIS}
2		there we go.	{ACK}
3		*((Hayden starts to act up, calling out and waving his arms))*	{OV}
4 TP:	→	Hayden, Hay– [Ha:yde:n,	{SUM}
5		*((Hayden does not respond))*	{NPR}
6		→ *((TP exchanges glances with TL))*	{REQ?}
7 TL:	→	[Ha::yde:n,	{SUM}
8		*((TL turns to Hayden))*	{PHRO}
9 TL:		Sto:p it.	{DIR}

↓↑



10 *((Hayden does not respond))* {NPR}

11 → *((TL reaches across and touches his shoulder))* {PHO}
12 *((TN sitting just behind Hayden touches his other shoulder))* {PHO}
13 TL: → Oy! Listen! {RCRY/DIR}
14 → *((TL touches Hayden's arm to attempt eye contact))* {PHRO}
15 TL: Do you want to have to go somewhere else? {Q}



16 → *((TL secures Hayden's gaze))* {GZS}

17 TL: Ri:ght. Be good. {ACK/DIR}
18 *((Hayden stops his behavior, puts his hands under the table))* {UPT/PR}

TP is displaying the objects that the children will be using to make biscuits. Hayden begins to wave his arms and to make noises, which is very distracting. After TP summons Hayden in line 4, without being able to secure his gaze, an exchanged glance with TL signals that TP needs assistance, and serves as a possible request to TL as she is sitting next to Hayden. This exchange points to the teachers' shared understanding that more than a summons is needed to secure Hayden's attention, and that a physical gesture may be needed from the teacher who is in the closest proximity to the child. TL in line 7 summons Hayden, the prosody of her utterance marking it to be noticed. Her first summons does not get Hayden's attention, and her bald directive to "stop it" also goes unheeded. Both she and TN, who is sitting the other side of Hayden, reach over to touch Hayden's shoulders. In line 13, TL provides an emphatic response cry acting as summons with "Oy!" and the directive for Hayden to listen to her. All this work must be done in order to secure gaze and joint attention with Hayden. In fact, it is not until TL queries in line 15 "Do you want to have to go somewhere else?" that she finally secures Hayden's gaze. The use of the social modal "have to" in this case produces an implied threat to leave the activity, for which the child has been offered the position to make the choice. Hayden's disruptive behavior stops once his attention is secured. TL acknowledges this, and directs the child to be good. As a summons from one teacher was not enough, the teachers had to work in concert to establish attention with Hayden in order to effect a change in his behavior. A diagram of the sequences of these actions can illustrate the intricate pathways of tactics utilized by all the teachers, which is presented in Figure 2:

Figure 2. Sequence of Actions in Example 6



1 TL:	Who would like to be a pig?	{Q}
2 Harry:	ME! *((Raises his hand))*	{REP}
3 TL:	oh kay,	{RSP}
4	*((Harry gets up to take the cutout from TL))*	{UPT}
5 TL:	Who would like to be:: (.)	{Q}
6 Ella:	ME: ;!	{RSP}
7 John:	Me!	{RSP}
8 TL:	What is it?	{Q}
9 Ella:	A Teddy Bear.	{RSP}
10 TL:	Well do:ne. *((gives Ella the cut-out))* Oka:y.	{AS/RSP/ACK}
11	Okay Marla, you'll have one in a minute,	{AN}
12 Mel:	Ooop yoo ooop yoo ooop!	
13	→ *((Mel is goofing around with cutout at Hayden))*	{OV}

A similar case, in which the teacher must use physical contact to establish gaze with the child, occurred in the U.S. preschool and is presented in Example 7. In this interchange, Liam (4;1) and Allen (3.8) are playing on a sand table outside in the playground. Allen becomes distressed about Liam's actions with the sand, and Liam's lack of response to his directives. Miss B, who has been monitoring the exchange, finally comes to intervene.

Example 7. Liam Stop

1	*((Liam interferes with Allen's sand construction))*	{OV}
2 Allen:	No Nooooo No!	{AN/AS}
3	Stop that (.) Stop! Sto:p tha:t!	{DIR/DIRR}
4	Sto::p Sto:::p!	{DIRR}
5	*((Allen tries to move Liam's hands))*	{PHO}
6	Sto::p!	{DIR}
7	*((Allen looks up for assistance))* ↑↓	{EST}



8		Sto:::p! No:!	{DIR/AS}
9	Miss B:	Liam can you hear Allen's words?	{SUM/Q}
10		Liam what is he saying?	{SUM/QRF}
11		*((Liam does not respond, plays with sand))*	{NPR}
12		Liam, Liam,	{SUM/R}
13		*((Liam does not respond))*	{NPR}
14	Allen:	stop!	{DIR}
15	Miss B:	Liam, what is Allen saying?	{SUM/QRF}
16		*((Liam continues playing with sand))*	{NPR}
17	Allen:	stop! stop!	{DIR/DIR}
18		Stop!	{DIR}
19		Stop Stop!	{DIR/DIR}
20		Stop stop Sto:p!	{DIRx3}
21		*((Liam continues to be unresponsive))*	{NPR}
22	Miss B:	Liam,	{SUM}



24		Liam.	{SUM}
25		Listen, Li-=	{DIR}
26		=Liam,	{SUM}
27	→	*((Miss B touches Liam's chin))*	{PHRO}



28		Allen doesn't like that.	{AS}
29	→	*((Liam looks up at Miss B))*	{EST/GZS}



30	We need to go over there=	{SUG}
31	=and play where Allen wants you to play.	{EX}
32	Al- this was Allen's, (.)	{EXP}
33	you come play down here. *((pats bench))*	{DIR/PHO}
34	*((Liam stands back from table))*	{RSP/UPT}

Miss B, after monitoring Allen's emphatic response to Liam's unresponsiveness, first summons Liam in line 9 and asks him if he can hear Allen's words. In line 10, Miss B reformulates this query to ask Liam what Allen is saying. In this preliminary step to establish joint attention with Liam, Miss B is encouraging Liam to notice not just Allen's words but also what Allen means by saying them. Liam does not respond, and Miss B, after several vocal summonses, in line 23 moves towards the sand table and takes Liam by the arm. In lines 24 to 26, Miss B summons Liam three times and directs him to listen, but does not get a response or gaze. In line 27, Miss B takes Liam by the chin and offers the explanation underlying Allen's words that he doesn't like that. She in effect supplies the answer to the queries about hearing Allen's words, and the meaning of what he's saying. It is at this point that Miss B finally secures Liam's gaze, and in line 30, proffers the necessary action to solve the "dispute." Once Miss B has secured Liam's gaze, she is able to continue with the explanation of the problem for Liam to understand, and the preferred actions for Liam to enact. Liam's response is to stand back from the table. He does not, however, take up Miss B's suggestion to play on the bench.

The use of physical contact with the child, physical reorientation, and overt expression to request gaze is also displayed in Example 8. However, establishing close contact and gaze with a young child does not always mean that they will do as they are told. During a gymnastics lesson for the U.S. Sunshine class, Miss P must work hard to manage the group of children during the activity that she organizes. All are at different stages of the activity, and she must monitor them all. She calls to Fred (3;6), who is running in the opposite direction of the previously established flow.

Example 8. Gymnastics

1	→	*((Fred is running in the opposite direction))*	{OV}
2 Miss P	→	Fred I need your body over here.	{IREQ}
3		Gary not a bad one>>very good, Polly,	{SUM/AS/SUM/AS}
4		And are you ready to go? *((directed at Ken))*	{Q}
5		You're just pla:ying with the ball!	{AN}
6		You don't know what you're supposed to be doing>=	{AC}
7	→	=Fred come here>we have to have a talk.	{SUM/DIR/AC}
8	→	*((Miss P takes Fred by the body/orients him towards her face))* ↓	{PHRO}



9	→	You have to stay on the safe spot,	{EX}
10	→	or you have to stand next to me and hold my hand,	{EX}
11	→	Do you understand?=	{Q/REQ ACK}
12	→	=Do not run around the room.>> that's not okay.	{DIR/AC}
13	→	*((Fred looks down towards the floor))*	{PHRO/NPR}
14	→	Look in my eyes,	{DIR}
15	→	Look in my eyes please↑,	{DIRR/REQ}
16	→	*((establishes eye contact))*	{GZS}
17	→	You can't run around the room please,	{AC/REQ}
18	→	/?????/ *((playful))*	{ENG}
19	→	Kay, go on the circle,	{ACK/DIR}
20	→	and show me how you can listen.	{REQ}
21	→	On the circle on the carpet,	{DIRRF/EXP}
22		Can you go get in line, Gary,	{REQ/SUM}
23	Gary:	I can do it. *((Miss P has Gary in hand))*	{PR}
24	Miss P:	Let me see John big kicks over n' land on your feet.	{REQ}
25	→	*((Fred is running in the opposite direction once more))*	{OV}
26	→	Fred, (0.1) wha:t were my words? (.)	{SUM/Q}
27	→	What did I say? On the circle, (0.2)	{QR/PROFR/DIRR}
28	→	*((Fred turns around and walks back towards the circle))*	{UPT/PHR}
29	→	on the carpet.	{PROFR/DIRR}
30	→	*((Fred stands on the circle on the carpet))*	{UPT/PR}
31	→	Good.	{AS/ACK}
32		Go Gary don't stop!	{DIR/SUM/DIR}
33		*((Polly is seen going the wrong direction))*	{OV}
34		Hhh↑ Po:lly,	{RCRY/SUM}
35		you're not supposed to go in reverse,	{AC}
36		Go this way Polly. (.)	{DIR}
37		Over here with us please↑	{REQ}
38		Arms up tall!	{DIR}

Miss P has a complicated job on her hands to maintain order and direct this group of children in gymnastics class. In this particular activity, after having explained to the children what they must do, she situates herself at one end of the room, sitting down. Miss P orients herself in order to be able to observe all the children at once, and places her own body at their physical level. As the children are complying with the requirements of the activity, moving around the room, they will also eventually physically pass Miss P. She calls children by name to note

their individual progress. Miss P observes that Fred is running in the opposite way of the previously established direction. In line 2, she tells Fred that she needs his body over here. This formulates an indirect request that also requires Fred to move in the desired direction. He does not immediately respond, and after noting other children's' progress in lines 3-6, Miss P in line 7 summons Fred, directs him to her side, and accounts for her directive with "we have to have a talk".

As Fred comes closer to her, Miss P takes him by the body to orient him toward her, in order to establish joint attention for her upcoming explanation, which she gives in lines 9 and 10, requesting acknowledgement in line 11. In line 12, Miss P makes explicit through her directive and account the preferred behavior required of Fred. Fred looks down towards the floor (line 13), which cues Miss P that she has lost eye contact and thus joint attention and mutual recognition. In line 14, Miss P explicitly asks for Fred to look into her eyes, and in line 15, reformulates this directive as a request. After establishing gaze, and therefore perhaps joint attention, Miss P reformulates the directive for not running around the room, using the pronoun you to explicitly frame this for Fred alone. In line 18, Miss P tickles Fred and says something to him in a playful manner, mitigating the force of her directive. She acknowledges their shared joint exchange in line 19, and directs Fred to what he must do to successfully complete the required activity. In lines 20 and 21, Miss P requests Fred's response, and not only reformulates the directive, but also expands upon it. Giving Fred a chance to respond, Miss P turns her attention to Gary and John, but then observes that Fred has not complied and is running in the opposite direction once more.

Even after establishing gaze that underpins joint attention, Miss P discovers through Fred's behavior that he either did not understand or has defied her instructions. By summoning and then asking Fred "what were my words" in line 26, Miss P is requesting an explicit verbal acknowledgement of her directives. Fred does not respond with language, but displays his understanding by turning around and walking back to the circle (line 28). As he complies, Miss P reformulates the previously given directives. This particular example highlights the complexity of managing children in more intricate activities. It also highlights the use of physical orientation and the explicit request for eye contact to secure gaze to make sure that joint attention is reciprocal, and understanding achieved.

Avoiding gaze

the significance of establishing joint attention through gaze, and the use of body orientation in order to secure gaze, and to accomplish and understand goals, has been demonstrated by the preceding examples. In Examples 9 and 10, this phenomenon is also exemplified. However, sometimes children are in disagreement

with the teacher, or with the actions they are expected to do, and display more than crossing their arms in disalignment (as Mel did in Example 2).

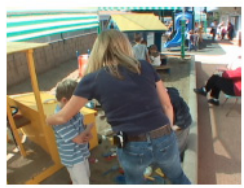
As we have seen in the Story Animals example, children are more than capable of expressing their disalignment. Whereas Mel continued to gaze (and cross his arms) at the teacher to display his disagreement, in the following, the child avoids the teacher's gaze in order to avoid acknowledging her request. As part of the daily regular routines established by the American preschool protocols, the goal in this interchange is to follow the instruction to stop activities in the playground and to proceed to the classroom for the next activity: snack. The children from the U.S. Butterfly class are in the playground. A general announcement is made that it is time to go in. Miss N notes that Nat (4;5) is not responding. Milo (4;8) is alongside.

Example 9. Time to Go

1	Miss J:	Oka:y everybody, time to line up!	{AN/INFDIR}
2		*((Nat and Milo do not respond))*	{NPR/OV}
3	Miss N:	Milo-Nat- let's go.	{SUM/DIR}
4	Nat:	I'm not go:↓ing.	{NPR}
5	Milo:	I'm not going either.	{NPR}
6		*((Miss N bends down to attempt eye-to-eye contact with Nat))*	{PHR}
7		*((Nat crosses his arms displaying disalignment))*	{DSP}
8		→ *((Nat looks away to avoid eye contact))*	{AVGZ}



9	Miss N: →	Look at me (.) Look at me,	{DIR/DIRR}
10	→	*((Miss N establishes eye-contact with Nat))*	{GZS}
11		That's what we need to do now=	{EX}
12		=and then we're going to have snack.	{EXP}
13		(1.8)	
14		'kay? (0.1) Let's go.	{REQ ACK/DIR}
15		*((Miss N puts her arm on Nat's back to guide him towards the classroom))*	{PHR}



16		*((Nat walks towards the classroom and Milo follows))*	{UPT}

After Nat and Milo disalign with Miss N's summons that it is time to go into the classroom, Miss N immediately positions herself to establish eye-to-eye contact with Nat at his physical level of orientation. After Nat looks away from her to avoid eye-contact (line 8), she supplies the bald directive "Look at me" with a micro-pause before repeating this directive to secure not only Nat's eye gaze (line 10), but also joint attention and reciprocal awareness. Miss N supplies the explanation "That's what we need to do now" using the social modal "need" and the pronoun "we" to index the social responsibilities of their preschool community, and previously established routines. Miss N then supplies additional information about what will be happening afterwards with "and then we're going to have snack" in line 12. After a pause of 1.8 seconds, awaiting Nat's response, Miss N proffers the display question "'kay" to elicit acknowledgement. Rather than wait for Nat to respond (perhaps negatively), she puts her arm around his back to guide him while she says "Let's go", physically and gesturally grounding the expected appropriate response. Although negotiation could possibly have taken place, the preschool routines are recognized and upheld by the teacher and preclude any negotiation. This points to the established authority of the teacher in this social context. The trajectory of speech events in this example includes negative responses from the child to the adult. Miss N, as a teacher, illustrates how establishing gaze can also serve to exert authority. This example also shows how a child can seek to avoid eye contact in order to avoid establishing shared joint attention, as shared attention will lead to a necessary acknowledgment by the child and therefore his impending and expected compliance.

Example 10 provides another instance of a child avoiding eye contact to establish joint gaze. However, the teacher fails to establish eye contact and to secure gaze, and thus fails to obtain joint attention. Because of this, the teacher also fails to receive the preferred response and uptake from the child. In the event, after several attempts to engage the child, she chooses to drop the matter. The children from the U.S. Sunshine class have been called to go back into the classroom after playing outside. They sit down to line up.

Example 10. Lining Up

1 Miss J:	Let's count how many children we have,	{AN/SUG}
2	*((Justin 3;9 is touching John 4;2))*	{OV}
3 John:	I do:n't li:ike i::t!	{AN}
4	→*((Miss J leans down to establish gaze & attention with Justin))*	{PHRO}
5 Miss J:	Justin, did you hear his words?	{SUM/Q}
6	→*((Miss J touches his face and tries to lift his chin towards her))* ↓	{PHRO}





7		*((Justin slaps her hand away))*	{PHR}
8	Miss J:	Did you hear his words Justin?	{QR/SUM}
9	→	*((Justin turns his face away from Miss J))*	{PHR}
10	→	*((Miss J takes his arm, tries to turn his body towards her)*	{PHR}
11	Miss J:	Justin. (.)	{SUM}
12	→	*((Miss J touches his leg))*	{SUM/PHRO}
13	→	*((Justin still refuses to turn his face))*	{PHR/NPR}
14		Excuse me> did you hear John's words?	{REQ/QR}
15		He doesn't like that.	{EX/PROFR}
16	→	*((Justin still does not turn his head towards Miss J nor responds))*	{NPR}
17		*((Miss J lifts her hand and stands up))*	{PHRO/CLO}
18	Miss J:	Ok let's count heads.	{CLO/SUGR}

Miss J announces that a counting of children is in order before going back to the classroom. Justin is poking John, who is sitting next to him. John responds to this (line 3) by yelling that he doesn't like what Justin is doing. Miss J leans over Justin, adjusting her physical orientation in order to be able to secure Justin's gaze and attention. She summons Justin by name and queries if he heard John's words. As Justin does not look up at Miss J, she touches his face and tries to lift his chin so that eye contact can be made. In line 7, Justin responds to Miss J's gesture by slapping her hand away from his face, which is a very strong disalignment with her attempt to establish eye contact (and therefore joint attention). Miss J reformulates her query and summons, to which Justin looks away. After several failed attempts to gain Justin's cooperation to acknowledge her, including taking his arm and trying to orient Justin's body towards her (line 10), another summons (line 11), touching his leg (line 12), reformulating the query a third time (line 14), and proffering a candidate verbal response (line 15, which is also a reformulation of what John's words were), Miss J abandons the exchange and closes with a reformulation of her first suggestion to the group as a whole. It is worth noting from Example 1 that Justin is perfectly capable of responding to a summons, securing gaze with the teacher with regard to his sanctionable behavior, and responding appropriately. What this example demonstrates is that not only can a child display disalignment; a child can also refuse to make eye contact in order to avoid securing gaze, establishing joint attention and acknowledging the teacher's verbalizations.

Establishing joint attention and uptake

when the features of joint attention are not adhered to, e.g. securing gaze and acknowledgment, we have seen that response and uptake from the children

are not the same as when attention and acknowledgment are attained. In the previous two examples, it was shown how avoiding gaze can be utilized by children to avoid establishing the recognition sought by the teacher in order for them to avoid a preferred response. Examples 11 and 12, also from a larger collection, the problem of not establishing joint shared attention with children in a busy preschool environment results in the children ignoring the teachers' indicated disapproval of their sanctionable behavior.

First, from the U.K. site, we observe three children playing on the outside of a plastic "Wendy house." There are two teachers present in the room. One, TR, is sitting at a table directly opposite the playhouse and is conducting an activity with two children. The second, TC, is standing alongside the table. Fiona (2;10), Harry (3;8) and Ella (2;9) are just outside the playhouse. Fiona speaks to Harry.

1 Fiona:	Let's climb on the roof. (4.0)	{POV}
2	*((Fiona goes to the side of the Wendy house))*	{PHO}
3	*((There is no uptake from Harry))*	{NRSP}
4	*((Fiona returns to Harry, directs her speech to him once more))*	{PHRO}



	↑↓	
5 Fiona:	Like this let's play, (1.0)	{SUG}
6	Let's climb on the roof.	{SUG/PBV}
7 TC:	No::↑ (.) that's not ri:ght.	{RCRY/AS}
8	(3.0) *((all talk by the children at the wendy house ceases))*	{RSP}
9	You mustn't do that, must you.	{DIR/REQ ACK}



	↑↓	
10	→ *((All the children turn towards TC))*	{RSP}
11	*((Fiona moves to the far side of the Wendy house))*	{PHRO/RSP}

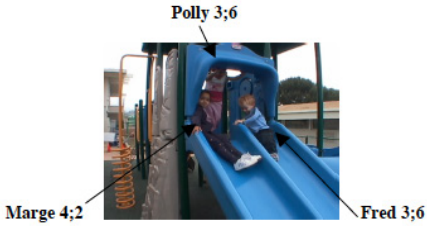
Example 11. Wendy House

In this example, TC, the teacher on the far side of the room, overhears Fiona asking Harry to play on the roof of the playhouse. Her calling out "No" in line 7 is prosodically weighted, both in pitch and volume, serving to call for the children's attention, which acts as a response cry and summons at the same time. The word "No" frames the negative aspect of the action that Fiona had been suggesting she and Harry engage in. This is indexed and assessed with TC's "that's not right". There is a 3-second gap following this announcement by TC, during which all activity and talk by the children next to the Wendy house ceases.

Although the directive "you mustn't do that, must you" was directed towards Fiona, the child who had suggested climbing on the Wendy house, the public use of the social modal in this communal situation makes the inferred directive relevant to all the children present. This is evidenced by the fact that all the children turn towards TC, and some respond to this directive by leaving the playhouse to engage in a different activity. Their response, therefore, displays that they have recognized TC's assessment and directive. Fiona, on the other hand, "hides" on the far side of the Wendy house, perhaps in this way displaying that she is aware that TC's admonition was possibly directed towards her, as it was her suggestion to climb on the roof. However, some 6 seconds later it can be seen that Fiona is on the other side of the Wendy house, starting to climb.

Could it be that because of the public nature of the admonition and inferred directive, and the lack of overt establishment of joint attention between Fiona and TC concerning this issue, Fiona does not ultimately comply? In example 12 to follow, from the U.S. preschool, another instance of just such a possibility is revealed. A response cry also acts as a public summons and precedes an evaluative comment upon the ongoing child behaviors. Polly (3;6), Marge (4;2), and Fred (3;6) are playing on the slide. Miss C is monitoring the children's play at one side of the jungle gym.

Example 12. The Slide





1 *((All three take their turns sliding on their stomachs))* {OV}
2 *((As Polly goes down, Miss C calls out))* {OV}

3 Miss C: Uh= O:n your bo:ttoms my friends. {RCRY/SUM/DIR}

The prosody and pitch of "Uh=On" frame this response cry utterance as a summons. The vowel lengthening in "O:n your bo:ttoms" serves both to stress and to explicate the specific behavior that Miss C is requiring of the children with regard to sliding down the slide, as well as inferring that their sliding on their stomachs is unacceptable. In this case, as in the Wendy House example, the children's attention is not established by their gaze or by any vocal acknowledgment to Miss C. What transpires afterwards is that Polly and Marge go back up the slide and then go down once more on their stomachs.

Discussion

In this study, the process of constructing joint attention between the children and caretakers at both research sites was examined. Physical orientation, the reorientation of body positioning, summons, eye contact, securement of gaze, verbal information (including directives and questions), requests for acknowledgement, and physical contact were all seen to be utilized. Preferred and non-preferred responses from the children depended upon whether a joint mutually recognized attentional frame was achieved.

Summonsing, by name or by other address terms, is vital in order to establish the focus of attention being drawn. When the "name" or call is of a general and public nature, and when those called recognize that they are the recipients of the call, participants can engage in a joint attentional frame. If the children do not recognize the call, they may not attend and may very well ignore the information being given to them. Summonses are also built through the reorientation of bodies. Teachers move to place themselves in closer proximity to the children. They engage in physical contact in order to orient children's bodies towards them to

establish eye gaze. Teachers also explicitly request eye contact from children to establish joint attention.

Children are able to display disagreement and negative alignment. They also refuse eye contact, in order to avoid securing gaze and the teacher's attempt to establish joint recognition. As Kidwell (2005) noted, very young children are able to recognize gaze as a form of control. Observations show that children can actively attempt to evade this control.

Constructing joint attention with children in preschool requires joint focus, mutual recognition, and interaction as a work-in-progress to establish communication and understanding. The preceding examples displayed how a response-cry-as-summons, gaze, gesture, physical orientation, embodiment and physical contact all serve to establish a basis for jointly constructed attention and understanding. The examples have also shown how children can and do refuse to engage in the process in order to avoid mutual recognition, and therefore, to avoid compliance.

Establishing joint attention for mutual recognition underpins interaction. For successful responses and uptake from the children, teachers work to create a mutually recognized interactional frame in which to promote understanding and socialization practices. In addition, cross-sectional observation of the time spent in both these preschool communities (and the socialization that takes place) displays that, within a year, children 4 years old and older respond to verbal input appropriately more often than younger children. In addition, the teachers' need to engage in physical embodiment and gesture for the purposes of gaining and securing children's attention and recognition also decreases as the children mature.

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Appendix A: Transcription Conventions

(Adapted from Sacks, H., Schegloff, E.A. & Jefferson, G. (1974). A simplest systematics for the organization of turn-taking for conversation. Language, 50(4): 696-735.)

?	Rising intonation
.	Falling intonation
,	Continuing intonation
[	Overlap
:	Vowel lengthening, and stretching of sound
word	Underlining is used to indicate stress
WOrd	Upper case indicates especially loud talk
↑	Rise in pitch
↓	Fall in pitch
.hh	Inbreath
(.)	Micro pause
(0.1)	Silence in tenths of a second
°	Whisper/breathy speech
=	Attaches continuous speech
-	Speech cut off
>>	Speech compressed or rushed
/??/	Untranscribable utterance
(())	Double parantheses used to describe contextual information and actions
{}	Curly brackets denote speech events
	Intonation contour
	Singing

Appendix B: Coding of Interactional Moves

Account	AC
Acknowledgement	ACK
Announcement	AN
- Announcement reformulated	ANF
Answer	ASW
- Answer reformulated	ASWF
Assessment	AS
Conditional Directive	CDIR
Closing	CLO
Directive	DIR
- Inferred Directive	INFDIR

- Directive Reiterated	DIRR
- Directive Reformulated	DIRF
Display	DSP
Engagement	ENG
Establish Focus/Attention	EST
Explanation	EX
Expansion	EXP
Gaze Secured	GZS
- Gaze avoidance	AVGZ
Indirect Request	IREQ
Inferred disapproval	INFD
Observed Violation	OV
- Possible observed violation	POV
Physical Orientation	PHO
- Physical Reorientation	PHRO
Proffer	PROF
- Proffer reformulated	PROFR
Prompt	PRP
Query	Q
- Query reiterated	QR
- Query reformulated	QRF
Recognition	REC
Response Cry	RCRY
Response	RSP
- No response	NRSP
- Preferred response	PR
- Non-preferred response	NPR
- Proffered response	PROFR
Request	REQ
- Pre-request	PREQ
- Request reformulated	REQF
Sanction	SAN
Suggestion	SUG
- Suggestion reiterated	SUGR
Summons	SUM
Uptake	UPT

BIOGRAPHICAL SKETCH

Twenty-four years after attaining an MPhil in Linguistics from the University of Cambridge, during which time she raised a family and ran a woman's basketball club, Rosamina Lowi returned to her native California and attained a PhD in Applied Linguistics at UCLA. During the course of the PhD, Rosamina trained as a teacher of English to speakers of other languages. She discovered her passion for teaching and commitment to engaged student learning experiences at a variety of institutions as an adjunct instructor of both ESL and teacher training. In 2011, Rosamina joined Laureate Education, Inc. as a course developer researching and writing courses for online delivery at several institutions. Her commitment to engaged student learning experiences now extends beyond the traditional classroom.