INTRODUCTION: MULTIMODALITY IN DIRECTIVE/RESPONSE TRAJECTORIES

Family life like other institutions is orchestrated through the organization of activities in space and time. Getting children to do something entails moving them from one activity to another, often simultaneously to a new space. Directive/response sequences (Fasulo, Loyd, & Padiglione, 2007; C. Goodwin, 2007b; M. H. Goodwin, 2006; Klein, Izquierdo, & Graesch, 2009), including accompanying gestures that help bodies toward the activity-appropriate spaces, constitute a basic resource for accomplishing such activity. In this chapter, our focus is on practices for organizing a routine activity all American children are obliged to do: brushing their teeth.

Whereas others have investigated the grammatical forms and accounts that are used by family members to get something done (Blum-Kulka, 1997; Ervin-Tripp, 1982), our fundamental concern is the embodied “choreography” of children’s attention in structuring an everyday activity. Although each child’s lifeworld may appear natural to the children that grow into it, our analysis leads us to consider it a complex achievement (Schegloff, 1987) requiring sustained parental work in organizing children’s active engagement.

Family life seems to depend on certain ecological arrangements of attention, choreographies of events, orientations toward objects, and timings of movements through space that are repeated and patterned each day. We first consider how family members create alignments in participation frameworks so that they can attend to the directive and display a cooperative stance toward it. This may entail dislodging children from competing or concurrent activities, and bounding off activities so that children can hear and attend to a directive in a focused way. We examine the complex and multimodal semiotic resources that parents draw on when they attempt to shift children’s attention from one activity to another. In some examples, parents’ verbal directives and physical postures are conjoined and mutually reinforce one another; in other examples, activities overlap in time and in space, creating complex competing demands on children’s attentional attunement. Next, we examine how participants move their bodies through physical spaces in order to carry out a course of action, making use of artifacts and features of the architecture of the house that are appropriate to the particular task at hand. These “topographies” of an activity show how routines entail a training of routine bodily movement vis-à-vis concrete objects and architectures (such as the bathroom sink).

Alternative types of stances toward the activity are possible and displayed through the body; interlocutors can either choose to willingly participate in ways that display their engagement or refuse to cooperate in the course of action. Carrying out the activity in a way that builds autonomy requires long-term engagement in the setting. Rather than creating a broad distinction between children’s learning through “intent participation” training (Rogoff et al., 2003) and explicit verbal training, we find children learning through hybrid and shifting combinations of teaching styles and methods. Children learn both by being in the midst of ongoing activity and through careful parental monitoring and verbal and non-vocal assessment, as a more expert person entrains the novice’s body to conduct the activity. Examining how the same routine is differently structured, performed, commented upon, and critiqued, we can locate the activity of toothbrushing within larger projects for the formation of family identities.

DATA AND APPROACH

The examples in this study are drawn from video recordings of naturally occurring interaction in families who were part of UCLA’s Center on Everyday Lives of Families (CELF) project. Our methods combine ethnographic research – including questionnaires providing basic income, ethnicity, and family information and semi-structured open-ended interviews concerning social networks, health and well-being, educational practices and goals, children’s perspectives on work and family – with ethno-archeological timed observations (“tracking”) of
family members, locations, and activities, photographs of space and material objects, floor plans, video home tours made by family members, psychological studies of hormones indicating stress, and video recordings of naturally occurring interaction. Approximately fifty hours of interaction were collected in each family over a week's time. Video-ethnographic methodology makes it possible to record mundane talk (Goodwin, 1981), physical gestures and action (Goodwin, 2000), and routine activities, all within the household settings where people actually carry out their daily lives (Ochs, Graesch, Mittmann, & Bradbury, 2006). The present project is part of a larger project in which we compared the day-to-day organization of physical routines of thirteen families, studying the very different ways that families orchestrated similar activities, such as clearing the table, getting children dressed and ready for school, or shepherding children toward bedtime.

Our approach for understanding the way that toothbrushing is choreographed across different families draws on both phenomenology and studies of embodied communication. The phenomenological approach we draw from includes William James's (1961) writings on the stream of consciousness and the formation of attention and Schutz's (1970) concept of the "life-world," that is, the routine and commonplace social, cultural, linguistic, and physical world of daily rounds into which children are socialized. Phenomenology provides a useful set of perspectives for analyzing how a child's attentional stream can become trained, patterned, and directed through everyday activities. Studies of embodied communication analyze how situations of apprenticeship are multimodally constructed, making coordinated use of objects and constructed spaces, physical gestures, and verbal communication (C. Goodwin, 2000, 2007a; Heath, 1992; Heath & Luff, 1992; Koschmann & LeBaron, 2002; Koschmann, LeBaron, Goodwin, Zemel, & Dunnington, 2007; LeBaron & Streeck, 2000; Mondada, 2007; Streeck, 2008). Building on the concept of the lifeworld, we examine instances of toothbrushing to consider the ways that young people in concert with others develop their own practice of habitual routines within larger family patterns of using household space and time.

ALIGNMENT TO RELEVANT PARTICIPATION FRAMEWORKS

In the following brief example we examine how participants achieve two different forms of spatial-orientational arrangements for the accomplishment of action (C. Goodwin, 2007a): 1) a face-to-face orientation between interlocutors, and (2) an orientation to the structure of architecture of the house where the activity of toothbrushing takes place.

In preparation for attending a picnic, Paula Randolf is fixing her seven-year-old daughter Cynthia's hair into two ponytails while Cynthia is playing "one potato, two potato" with a comb. When Mother finishes with Cynthia's hair, she puts down a rubber band on the counter and closes off the game activity with the term "Okay" (Beach, 1993). She then issues a directive: "You need to brush your teeth again."

When Cynthia continues counting on her comb, Mother then (Transcript 6.1, line 3, frame A) produces the word "you" articulated with a terminal glottal stop, which comes across as a cut-off -- a perturbation that can function in conversation as a request for gaze from a hearer (C. Goodwin, 1981). She next (line 4, frame B) produces her explicit summons to attention -- "Listen" -- while lifting Cynthia's chin, positioning Cynthia's body vis-à-vis her own so that 1) Cynthia can attend to what her mother has to say, and 2) she can inspect Cynthia's mouth closely (frame B). The two achieve a mutual facing formation as Mother, in line 5, critiques her toothbrushing activity: "You didn't brush your tongue very well." 2

In response to her mother's critique, Cynthia protests with "Mama. I did." (lines 6-7) and takes up an alignment that expresses seriousness toward the task at hand, as displayed by her facial gesture, with raised eyebrows (frames C and D). Following the protest, Mother carefully positions Cynthia toward the mirror so that she can closely observe the actions that Mother, as expert, performs on her mouth (frame E). This is all achieved through careful choreography of the activity.

Streeck (2009:210) argues that in studies of embodied cognition and social interaction, in cognitive linguistics, as well as in microethnography, there has been a lack of attention to the "the paradigmatic importance of intercorporeality," including contact, care, and love. He argues that this quality of interaction "clearly ... represents a form of corporeal intersubjectivity, ("intercorporeité" in Merleau-Ponty's (1962) term), that is unlike other forms of embodied relatedness." In toothbrushing activity we see how bodies are linked to other bodies while doing things together.

In that bodies of Mom and Cynthia are in close proximity, Mom has firsthand access not only to the sights of Cynthia's body, but also to her smells. Mom appeals to her own sensory experience of Cynthia's body as a way of justifying the claims she makes about her daughter's tooth and tongue care with her utterance "Because your breath stinks" (line 19). Despite initial objections (lines 6-7) to her mother's characterization of her toothbrushing, Cynthia allows her mom to both position her body toward the mirror and sink used for toothbrushing and to give her explicit instructions on how to brush her teeth, describing how and why Cynthia must brush her

1 The names used for families in this study are pseudonyms.

2 Data are transcribed using the Jefferson system developed for conversation analysts described in Sacks, Schegloff, and Jefferson (1974).
CHOREOGRAPHIES OF ATTENTION

((Cynthia is scraping a comb against a brush as Mom is taking out her barrets))

1 Mom: Okay. You need to brush your teeth again.
2 Cyn: "Eleven, twelve, thirteen-
3 Mom: Listen. (moves Cynthia's face to orientation)
4 You didn't brush your tongue- very well.
5 Cyn: Mama.
6 Mom: "Okay. You need to brush your teeth again.
7 Cyn: I did.
8 Mom: 'Kay. Turn around. I'll help you.

((turning Cynthia))

9 Mother: Huh?
10 Cynthia: I did brush my tongue.
11 Mother: Well, then you didn't brush your teeth good, Cynthia.
12 Cynthia: Yes I did.
13 Mother: NO. YOU DIDN'T.
14 Cynthia: Because I can tell.
15 Mother: How.
16 Cynthia: Because your breath stinks.
17 Cynthia: No it doesn't.
18 Mother: Yes. It doeth.)
19 Cynthia: No it doesn't.
20 Mother: Yes it does, Boo.
21 Cynthia: Doesn't
22 Cynthia: breathes) Don't smell anything.
23 Mother: (breathes into hands) Don't smell anything.
24 Cynthia: (breathes into hands) Don't smell anything.
25 Mother: (breathes into hands) Don't smell anything.
26 Cynthia: (breathes into hands) Don't smell anything.
27 Cynthia: (breathes into hands) Don't smell anything.
28 Cynthia: (breathes into hands) Don't smell anything.
29 Cynthia: (breathes into hands) Don't smell anything.
30 Cynthia: (breathes into hands) Don't smell anything.
31 Mother: (breathes into hands) Don't smell anything.
32 Mother: (breathes into hands) Don't smell anything.
33 Mother: (breathes into hands) Don't smell anything.
34 Cyn: (breathes into hands) Don't smell anything.
35 Mommy still has to get dressed.

Transcript 6.1.

Bringing attention to the different dimensions of the activity of dental care, Ingold (2001:135) discusses the development of competence, arguing that human knowledgableness depends not on innate capacities and acquired competence, but rather on skill. He argues (Ibid.) that what we need is an ecological account of skilled practice, one that considers the practitioner's bodily movement, as it constitutes a "movement of attention": as a person works, "he watches, listens, and feels." Ingold (2001:135) argues that responsiveness of this sort "underpins the qualities of care, judgment, and dexterity."

Both aligning children's attention in space and closing down concurrent activities involve fully embodied multimodal moves and trajectories of action, the "intercorporeal dimension of human life" (Streeck 2009): the way that gesture, talk, and embodied action organize co-presence among participants. This is quite evident in the next example of a young child's toothbrushing, this time from the Walters family. Ten-year-old Leslie expertly coordinates her little sister Roxanne (1.5 year) through toothbrushing by closely following her sister's physical cues, by narrating the unfolding sequence of events, and by creating a close physical formation, where Roxanne can attend what her sister does.

On a weekday morning, the two girls sit on their parents' bed watching television. Leslie turns to her sister and says, "Roxanne, just stay here. =okay? Roxanne, I need to go- I need to brush my teeth."

((Transcript 6.2, lines 4–6)) When Roxanne turns her body slightly toward Leslie, Leslie quickly asks, "D'you wanna come and brush your teeth with me? Okay, let's go brush our teeth" (lines 8–9, 12) while shifting off of the bed and offering her arms for Roxanne to climb in to. Leslie, a highly attuned caregiver, finds ways to include her sister in routine activities.

((On parents' bed with tv on Leslie is massaging Roxanne's legs and arms. Roxanne, has bottle in her mouth))

Roxanne: ((moves toward Leslie))

Leslie: Okay. Let's go brush our teeth.
((leans Roxanne up on both feet))

Get ((extends arms to Roxanne))

Transcript 6.2.
When they arrive in the bathroom, Leslie moves a small stool for Roxanne to stand on before positioning Roxanne on top of it, and guiding her to face the sink. She then requests that Roxanne give her the bottle she has in her mouth, and puts it on the shelf adjacent to the sink. She thus frees both her sister’s hands and directs her attention toward the new task, closing one activity in order to begin another. Stepping on the edge of the bathtub, she retrieves from the cabinet the objects that the two will need for brushing teeth. Leslie carefully narrates each step of the unfolding activity for Roxanne, as if she is turning the pages of a children’s book.

Transcript 6.3.

Throughout the sequence, Roxanne carefully monitors each of her sister’s actions. After Leslie has moistened her sister’s toothbrush, Roxanne holds it out to her sister, waiting for toothpaste to be applied (lines 22–23). At the age of eighteen months, Roxanne is already able to show her familiarity with the steps of this routine, and her role as a novice, through her production of the correct physical gestures. Her older sister thanks her for this small gesture of holding the brush out (line 24). After the toothpaste has been applied, Roxanne puts the brush in her mouth, making a slow chewing gesture with her mouth and moving the handle of the brush in a laggard rhythm. Behind her, Leslie vigorously brushes, filling the space with the fast-paced noise of her action.

After she has readied the toothbrushes, Leslie creates a nested formation around her younger sister, physically embedding Roxanne in her own performance of the activity (see Figure 6.1). Roxanne can feel the rhythmic movements of her sister’s body behind her and listen to the quickly paced scrubbing motion of her sister’s brushing. Although she cannot yet perform the task herself, and does not know how to spit, she is surrounded by the sound and feeling of the expertly performed activity. In words and gestures, Leslie carefully turns her sister’s physical attention toward the activity and then guides her through its completion.

CREATING BOUNDARIES AND ORCHESTRATING ATTENTION

Though toothbrushing is basically the same set of actions across families (uncapping toothpaste, brushing, spitting, rinsing), we found an incredibly wide range of variation in the way that the activity was organized in relationship to other activities. In some families, children are explicitly directed to end one activity before they begin another. In other families, they might be handed a toothbrush while they are engaged in competing activities.

Choreographies of children’s attention, through and between sets of everyday activities, are critical for the smooth flow of family life. It is possible to carry out multiple courses of action simultaneously (Good, 2009), but we find that appropriate accomplishment of toothbrushing requires that competing activities be put aside so that there is only a single focus of attention. In this way, we might wish to consider not only the activities themselves, but the interstices between activities — how one activity is closed and another opened, or the ways various activities overlap and concatenate in time.

Schegloff and Sacks (1973) find that speakers on the phone draw on a remarkably similar stock of knowledge for how to end conversations. Routinely interlocutors
make use of the same conversational machinery, actions such as “Okay,” or “Well,” which signal that the participant is passing the opportunity to open up a new topic, signaling that the conversation is coming to a close so that no new topics are taken up in conversation. A pervasive problem in interaction apart from phone calls is closing down one activity in order to launch another. In looking at closings of the activities before toothbrushing, we found that parents also have routine ways for attempting to shift children’s attention to new tasks.

These mechanisms for moving attention between activities are as physical as they are verbal. Kendon (1985: 237) discusses the importance of establishing and maintaining forms of spatial-orientational arrangements for sustaining a common orientational perspective. He argues, “By co-operating with one another to sustain a given spatial-orientational arrangement, they can display a commonality of readiness” (Ibid.). Participants in interaction have choices for how they position their bodies and talk to the task at hand, showing either alignment, disengagement, or protest.

We will now examine a particular example to see how mother Paula Randolf actively reconfigures the ecology of the physical space her daughters, Michelle and Cynthia, are inhabiting as she enters the room to ask them to brush their teeth and get ready for a picnic. As she approaches her children, she carefully bounds with “Come on guys.” and provides a justification for them to brush their teeth and get ready for a picnic. As the mother is attempting to launch “getting ready” activities: “Alright. (4.0) It’s twenty minutes to eight.” More direct forms, bounding the movement into a new activity given the completion of tasks preparatory for that activity (“You guys’ clothes are ironed.”) More indirect forms mention the time of day, projecting upcoming activities. The following occurs during dinner when children are told to close off one activity and prepare for a next, similar practices are used. “Come on,” like “Okay,” functions as a boundary marker or bracketing device to propose closing up the current activity. Following the bracketing formulation, a boundary account occurs, either referring to the activity that must be terminated (“You’re done organizing.” “Time to turn it off.”), or projecting a next activity (“Time to brush your teeth.”; “We gotta go.”; “It’s time to go to bed.”), or indexing the movement into a new activity given the completion of tasks preparatory for that activity (“You guys’ clothes are ironed.”)

Table: Boundary marker vs. Boundary account

<table>
<thead>
<tr>
<th>Boundary marker</th>
<th>Boundary account</th>
</tr>
</thead>
<tbody>
<tr>
<td>Okay Kei.</td>
<td>You’re done organizing.</td>
</tr>
<tr>
<td>Okay.</td>
<td>Time to brush your teeth.</td>
</tr>
<tr>
<td>Okay.</td>
<td>Time to turn it off. Sorry guys. We gotta go.</td>
</tr>
<tr>
<td>Come on.</td>
<td>It’s time to go to bed.</td>
</tr>
<tr>
<td>Come on guys.</td>
<td>You guys’ clothes are ironed.</td>
</tr>
</tbody>
</table>

When the children do not immediately get up and leave the computer monitor, Mom then walks to where the girls are seated and turns off the music video. She prevents any possibility of their attending to the monitor they had been watching. With a series of directives that take the form of imperatives she provides a list of activities that must now be undertaken: “Come on. Go; Brush teeth; get dressed, Come on guys.” (lines 8–11). Here, her verbal cues (“come on”) are in alignment with her postural stance and her rearrangement of the activity space by turning off the music video. In this way, she issues what we will call a “conjoined directive” — her physical and verbal actions work together to create a sense of force.

In these examples, we see how a parent’s directives are both attempts to get children to do something and to stop doing something else. Across a range of sequences when children are told to close off one activity and prepare for a next, similar practices are used. “Come on,” like “Okay,” functions as a boundary marker or bracketing device to propose closing up the current activity. Following the bracketing formulation, a boundary account occurs, either referring to the activity that must be terminated (“You’re done organizing.” “Time to turn it off.”), or projecting a next activity (“Time to brush your teeth.”; “We gotta go.”; “It’s time to go to bed.”), or indexing the movement into a new activity given the completion of tasks preparatory for that activity (“You guys’ clothes are ironed.”)

More indirect forms mention the time of day, projecting upcoming activities. The following occurs during dinner as the mother is attempting to launch “getting ready” activities: “Alright. (4.0) It’s twenty minutes to eight. Even though it doesn’t feel like it.” More direct forms, where no vis-à-vis facing formation is established, take the form of screamed bald imperatives: “JONAH! STOP! IT’S OVER!” Generally, when parents use these verbal boundaries in a way that is conjoined with physical and gestural markers of a new activity (e.g., creating a facing formation and pointing to a new space), children are much more apt to comply.

Across families, we observe patterned ways that directive-response sequences unfold; children can respond to a parent’s directive in a number of ways: with compliance (Transcripts 6.1–4, 6.9–10), negotiation (Transcript 6.7), or refusal (Transcripts 6.6, 6.8) (Aronsson & Cekaite, 2007; M. H. Goodwin, 2006; Klein et al., 2009). We will now examine a participation framework in which no clear delineations of the boundedness of activities are established.

**NEGOTIATION DURING ACTIVITY THAT IS NOT CLEARLY BOUNDED**

Sometimes, competing activities are arranged in such a way that they overlap in space and time, creating a further challenge for parents trying to elicit compliance with
shifts toward self-care activities. In such instances, the "social choreography" (Aronsson, 1998) of an attentional shift – or who maintains the right to shift another's attention – is critical. In the next example with the Goodson family, we see a very different pattern for arranging children's attention to activities.

Rather than brushing teeth occurring in its own time and space, brushing teeth is initiated on the living room couch during another activity – TV watching. On a weekday morning, eight-year old Hailey and four-year old Jason sit and watch a rerun of "Star Trek" with Father. Glancing at his watch, Mr. Goodson initiates the routine with "Time to get your tooth brush" (Transcript 6.5, line 1). However, instead of the children moving, he himself performs a series of actions for them and even onto his children's bodies (lines 7-11). He gets Jason's shoes and puts them on his feet. He brushes Jason's hair. He fetches two toothbrushes and sets them on the coffee table as the Star Trek conversation continues.

In Transcript 6.6, as the children and their father discuss various alien types and locations on the space ship, Father (line 5) positions the toothbrush in Hailey's line of regard while saying "Here." (line 7) Hailey, however, waves away her father's hand (line 6) and moves her hand from her lap to her mouth (line 9), avoiding any action which would be a reciprocal action to her father's gesture of offering the toothbrush, and rejects it stating, "Mm mm, no. I don't want it." (line 8) Jason likewise rejects his father's offer (lines 16–17). Though Father provides a recycling of his directive by tapping Jason's shoulder (line 18) and saying "Come on." (line 19), he quickly retracts the toothbrush and holds it upright, as Father too gets involved in watching the show (Figure 6.2a). He offers what we call a "disjunctive" directive – his physical posture and subsequent action does not align with the imperative to begin a new task, but rather contradicts it; the force of the directive is weakened.

After two minutes of silent watching, finally, Father brackets off the activity with "Okay. We gotta go." (Transcript 6.7, line 1, Figure 6.2a) and "Sorry guys. (1.6) Time to turn it off." (line 5), though he does not establish a facing formation with his children. Jason next physically turns his body into the couch in a posture of complete resistance to the attentional shift toward toothbrushing (See Figure 6.2b, Transcript 6.7, lines 12–13), and Dad

Figure 6.2. Body alignments in toothbrushing call-to-action.
In this example, we see how the sequencing of activities in time is a complex matter. Here one activity remains open as a simultaneous attempt is made to physically choreograph children into a new task. In this sequence, there were no efforts to bound off the activity of toothbrushing from a previous one. At moments, children are the passive recipients of getting ready. In other moments, they are expected to take charge of the activity. Father enters and exits the frame of the television world, at points abandoning the directive sequence to watch TV. himself. He is met with a gesture of physical defiance as Jason curls into a semi-fetal position on the couch (Figure 6.2b). He finally stands up and pulls Jason from the couch, attempting a physical choreography of his son's attention by placing his hand within his son's corporeal experience (Figure 6.2c), pulling him to an upright position. Jason's resistance to the activity shift allows him to attempt to negotiate with his father for a reward of gum. Placing his hand on Jason's back, Father shepherds (Cekaite, 2010) Jason from the hallway into the bathroom.

In these examples we see the complex interaction between participants' physical bodies, their alignment of gaze, and household objects (sinks, television sets, computer monitors) in the conduct of a routine activity. Clearly different types of moral actors are co-constructed through displays of reluctance and resistance, in contrast to willingness, to carry out routine courses of action.

RESISTANCE TO ALIGNMENT TOWARD THE TASK AT HAND

In studying children's enskillment toward toothbrushing, we find that the way that parents and children handle objects constitutes an important semiotic modality. If a parent hands over an already prepared toothbrush, that act in itself may constitute a kind of directive; if a child puts the toothbrush away in the right place, it is a display of autonomy, skill, and alignment. The child's way of using the object, in other words, demonstrates their shifting role in the organization of the task as they take on greater and greater levels of skill and autonomy. In a third family, the Alice Posner-Travis Gold family, we see a contrasting way in which directives, family roles, and objects are organized in the toothbrushing activity.

On a Saturday morning, the family is getting ready to attend Jonah's soccer game. Father brushes his own teeth at the bathroom sink. He is preparing brushes for Jonah (8) and Dylan (2.5), an activity he routinely does. Meanwhile, the two boys are playing in the bedroom a few feet from the bathroom door. In this moment, Father has the task of redirecting the children's attention away from their roughhousing game and toward the task of brushing teeth together. He uses a mitigated directive form, a question, followed by an imperative: "Dylan you want your uh-toothbrush here? Come here. Dylan!" (lines 4–5). However, when he delivers the directive, he is not in an alignment vis-à-vis his interlocutors. The children continue their play, and Father brings toothbrushes to the boys' room.
In this family, Father is the one who handles the toothbrushes while the boys are playing; in so doing, he takes basic responsibility for the task. He issues verbal directives that contradict his actions ("come here" vs. taking the toothbrushes to the children). There is no attention by Jonah to the toothbrush until Father achieves a posture of physical dominance over him (lines 22-23). Each turn unfolds as a series of oppositional gestures to the acceptance of the course of action the toothbrush implies:

Father readsies brushes→Father commands the boys to come toward the sink and brushes/ Boys refuse→Father then brings the brushes to the boys' room/ Jonah remains turned away from Father→Father commands Jonah to turn in space attempting to create F-formation/ Jonah remains turned the other way→Father pushes Jonah's chest away from competing activity and puts the toothbrush in his hand and mouth/ Jonah refuses.

In this instance, as in other directive sequences in this family (Goodwin, 2006), Father's request becomes an opportunity for refusal and resistance. Attention to the object of the toothbrush only happens through a posture of physical dominance; verbal directives have no force, and Jonah's toothbrush is not really his own, but his father's. The way that the Father moves the toothbrush exhibits a clear orientation to parents adapting to the child's preferences (Ochs & Schieffelin, 1984).

**TOPOGRAPHIES: PATTERNS OF ATTENTION IN THE USE OF ARCHITECTURE AND OBJECTS**

C. Goodwin (2010: 118) writes that the environments in which participants act are composed of interactions between actors and multiple sign systems:

Like things, language secretes structure into the world that creates environments that position actors, and serve as the point of departure for subsequent action... The interlocking properties of these environments are found to be crucial to the practices of apprenticeship through which actors, things and communities mutually constitute each other by making possible forms of interaction that produce both cognitively rich, competent members of a community and the things that are both the focus of the work of the community, and animate its discourse.

Both language ("Go brush your teeth") and things (i.e., a toothbrush left on a sink) depend on each other, and in apprenticeship situations actors make constant attempts to move others' attention and create moments of joint attention - using language and other modalities to highlight different aspects of the activity and its objects (C. Goodwin, 2007a). We consider the force of any parental directive, therefore, to be the result of the superimposition of signs (Agha, 1997), both in the present moment of the activity and in the way that the interaction has been practiced, patterned, and choreographed in past moments of the familial lifeworld. Directive-response sequences are achievements created through orientation...
to the built environment (the house with its designated locations for self-care activities) as well as the in-situ use of language, embodied action (body postures and alignments) (M. H. Goodwin, 2006). We are thus interested in the complex interrelationships between speech, objects, and physically embodied roadmaps of how the activities of enskillment (Ingold, 2001) unfold in the physical space of the house.

Research in the field of language socialization also theorizes this intimate connection between architecture, object, and communicative process. Ochs's (1988) study of Samoan children's language development, for example, points out how different grammatically marked formality registers of language are highly linked to the spatial organization of households. Children learn how to speak appropriately for the spaces that they inhabit in a given environment.

C. Goodwin's (1999, 2000, 2003) research on the importance of gesture and spatial relationships in learning situations shows how objects-in-action are physically connected to larger dimensions of context through verbal and gestural communication. A child's hopscotch court provides a "material anchor" (Hutchins, 2005) for a kind of play; an archeologist's Munsell chart is a conceptual device that organizes certain ways of attending to the material qualities of the soil.

Seen in this light, we might imagine the U.S. household space as a conceptual framework as well as material space that integrates the physical structure of the environment for the somewhat choreographed, somewhat improvised series of activities that make up daily life. The path from kitchen to bathroom to bedroom is a habituated course of action through space that makes up the activity sequence "bedtime." An array of objects on a bathroom counter (soap, spray bottle, toothpaste holder) is not only a set of implements, but a material index for a set of self-care activities — "getting ready" — performed in a temporal grouping (face washing, hair brushing, toothbrushing).

We can thus speak of topographies of bodies in movement, or well-traveled paths through architecture that relate to practiced sequences of activities. The study of a family's routine uses of architecture and objects points out how spaces, and the objects in them, can be used as a deliberate socialization resource for patterning activities and providing a physical grounding for the flow of attention (Latour, 1996; Lave, Murtaugh, & Rocha, 1984). Movements through space, and the ways in which objects and their uses are patterned, become important for the socialization of attention.

In our study we observed basic differences in how parents organized the routine of toothbrushing with respect to the key objects involved. In some cases, adults or sibling caretakers assisted the child and undertook the activity in concert with others, so that children could eventually do it themselves. The way that parents structure the interaction between the child and the object (toothbrush) sets up a basic stance toward the task. Is the child willing to entrain his or her actions into the requests of the more expert person or is it a task that is literally forced on the child?

The following examples from the Rich Albert–Frederick Callihan Family will serve to illustrate processes of attending to objects in a task trajectory. As Father and his son Andrew are fixing the blanket of Andrew's bunk bed, Father asks, "Do you want to um- So go brush your teeth.—Okay?" (Transcript 6.9 lines 1–2). When Andrew cannot immediately find his toothbrush upstairs (as his other father has removed the old ones), he sets out to locate where his toothbrush is while singing (lines 3–6). Andrew carries out a very rich ensemble of actions in response to the directive. These include not simply a verbal response, but mobilizing his body, building on his knowledge of where in the house to locate a toothbrush, and, without hesitation (or probing), carrying out a course of action. This entails sliding down the banister to go to the downstairs bathroom.

1 Father: Do you want to um-
2 So go brush your teeth.—Okay?
3 Andrew: ((starts to bathroom while Father cleans up))
4 Andrew: ((humns. sings)) Brush teeth, brush my teeth.
5 Let's see. My toothbrush isn't up here.
6 I have to go downstairs. ((sings))
7 ((slides down banister to go to downstairs sink))
8 Father: You're going downstairs to brush your teeth?
9 Andrew: Yeah. That's the only place
10 where my toothbrush is.
11 Father: Okay.

Transcript 6.9.

In the following map (Figure 6.3), from the Albert–Callihan family home, we track six-year-old Andrew as he travels from his bedroom, to the upstairs bathroom, down a banister, to the downstairs sink (as seen in the footprints from right to left in the diagram below).

We find that Andrew immediately mobilizes his body to travel through space in order to carry out the course of action one of his fathers has presented to him; rather than displaying reluctance or refusal, his physical movements connote cooperation and alignment with a family-oriented activity. Moreover, we see that he has mastered the sequence of activities that occur in a particular physical environment. He takes out his electric toothbrush from the medicine cabinet and moves it like a toy train across the rim of the sink from one side to the other; he uncaps the toothpaste, puts it on his brush, and proceeds to brush his teeth. He then spits, rinses his face, and dries his face with a paper towel from a dispenser on the right wall of the sink, in much the same way that he does on other days as he gets ready for school or for bedtime.

Andrew knows this complex sequence of actions for accomplishing the activity because his body has been entrained into the willing carrying out of the
routine activities associated with toothbrushing. Not only is there a dimension of knowing the sequence of actions; there is a moral dimension to his performance as he demonstrates his stance of alignment and engagement.

Andrew's father joins him at the sink to monitor and assess the activity. Although Andrew is the one who controls the objects of toothbrushing, his father is the one who completes the activity frame through his co-presence in space.

In a hushed voice, Father (line 8) asks Andrew, "You gonna wipe your face off too?" Andrew dries off his face and asks, "Is that better?" (line 9) Without prompting, he then bares his teeth for inspection (see Transcript 6.10). Andrew's father nods (line 10), and Andrew smiles widely as he leaves for the kitchen.

In this moment, we can see how the silent presence of Andrew's father creates a patterning of the unfolding sequence of the routine. His questions (lines 1, 3), assessment ("Good jo(hh)b.", line 6) and prompt ("You gonna wipe off your face too?" line 8) display his monitoring of the event. Father's sustained stillness in a facing formation against the perpendicular wall creates an audience for his son's completion of the task. When Andrew receives confirmation (line 10) that he has successfully completed toothbrushing to his father's satisfaction, he leaves for the kitchen and takes up a new activity.

In this trajectory of actions, we can see how six-year-old Andrew is in the process of developing a high level of skill and autonomy for attending to and completing the task at hand. Although he undertakes the activity much on his own volition, it is still under the guidance of his father. Andrew integrates moments of play into the task, but in a way that supports the overall trajectory of the activity qua object. He slides down the banister.

Transcript 6.10.

Figure 6.3. Map of child's journey through space for toothbrushing.
toward the toothbrush, hopscotches over the tiles on the kitchen floor toward the sink, and then animates the toothbrush, moving it toward the toothpaste.

The basic sequence of the activity thus unfolds as a flowing series of linguistic and gestural moves between Father, Andrew, and the toothbrushing objects. Each of these moments is a turn of attention that unfolds as part of the completion of an overarching objective set out in the first directive.

Father Gives Directive → Andrew Finds the Tool → Andrew Completes the Activity → Father Checks the Activity → Andrew Leaves

After Dad says “So go brush your teeth. Okay?” without hesitation, Andrew is able to align his attention with his toothbrush and the action of toothbrushing across several minutes of time and a large movement across household space, without a single distraction. He carries out the action in an environment where Father is actively involved in monitoring of the activity, so that if he is doing the activity wrong, he can correct mistakes that occur. Such a framework of monitoring permits the development of autonomous action. In this series of action, language, movement through household space, and the handling of physical object are all coordinated into a quickly unfolding choreography.

Here we also see a clear demarcation of social and familial roles that is demonstrated and reinforced by who handles the object, when, and for what purpose. In everyday toothbrushing, Andrew is the one who uses the object. In this whole sequence of actions, Andrew is the only participant who handles his toothbrush. His responsibility for his own “tools of the trade” is a demonstration of his alignment with the task and his sense of agency and goodwill in complying with a directive. The study of a family’s routine uses of architecture and objects points out how spaces, and the objects in them, can be used as resources for enskillment. Objects and spaces provide a physical grounding (or “material anchor”) for the flow of children’s attention.

In the Albert-Callihan family (Transcripts 6.9–10), a brief mention (“go brush your teeth”) creates a transfer of agency from Father to his son. Andrew then takes full responsibility for the objects and the actions that ensue. By way of contrast, in the Posner-Gold family (Transcript 6.8), Father’s request becomes an opportunity for refusal and resistance. Attention to the object of the toothbrush only happens through a posture of physical dominance; verbal directives have no force, and Jonah’s toothbrush is not really his own, but his father’s.

Looking at these two families, we might ask how the toothbrush is embedded in local ecologies of the activity—if the toothbrush is handed to the child or the child handles it himself. Initiating and organizing the key objects of the task create an embodied sense of agency and skill (Transcripts 6.9–10); the ability to control the key objects of the task is part of the shifting social role of the child, signifying the ontogenesis of autonomy and agency. Participants in the Posner-Gold (Transcript 6.8) or Goodson household (Transcript 6.5–6.6), by way of contrast, have their bodies acted on by parents. They are seldom positioned in cooperative stances, visible public displays that “one is organizing one’s body towards others and a relevant environment in just the ways necessary to sustain and help construct the activities in progress” (C. Goodwin 2007b: 70).

These examples of the three families—Albert-Callihan, Goodson, and Posner-Gold—taken together, also point out that activities have spatial topographies, like the floor pattern of a dance. The movement of children responding to directives displays the affective tenor of their involvement in the task: joyful compliance (Transcripts 6.9–10) accompanied by hopscotch jumps across the floor and slides down banisters, or reluctant tugs of war (Transcripts 6.7–8). Topographies for how spaces are traversed in routine ways become both a physical and conceptual ground for the completion of an activity. In these cases, we see alternative arrangements for the organization of space in activity—topographies may be routinized and ritualized, or invented anew each time the activity is done, or organized through speech instead of physically aligned joint attention. These patterns for how bodies, objects, and spaces are arranged interactionally point to larger questions for how routines of family life create and structure children’s attention.

CONCLUSION

Analyzing forms of intercorporeality (Merleau-Ponty 1962) in this paper we have examined how families build frameworks that allow for the close coordination of action in order to carry out the work of mundane and routine activities of their everyday life, the positioning of their bodies so that they can not only see but also hear and at points smell and feel the signs that the other interlocutor is producing. We also see how families use these moves as the point of departure for subsequent action. In examining a topographic map of activities, we explored some of the ways that families can collaboratively configure forms of mutual monitoring of ongoing processes of carrying out of the activity. We saw how a six-year-old could accomplish all aspects of the toothbrushing routine, including positioning himself for inspection by his Father, who carefully observed and commented on the activity. In other families, however, there is not the same engagement to setting up frameworks of mutual attention (as parents and children may be in different spaces), or parents may not be successful in dislodging the attention of their children from competing activities (media, roughhousing, eating, etc., but usually media). When the Posner-Gold children resist, Father brings the toothbrush to the child’s room. Active rearrangement of Jason Goodson’s body occurs with
physical maneuvering, Father pulling him off the couch or shepherding him to the bathroom sink after promises of gum.

A range of different alignments is thus possible in response to directive sequences. In the Albert-Callihan Family, with only the slightest hint that an activity should be undertaken, Andrew responded immediately and embarked on undertaking the task that he was called to do. Where new action sequences are bracketed off from prior ones, through eliminating competing distractions, and when co-participants willingly position themselves in facing formations toward one's interlocutors (rather than toward a competing focus of attention, such as a sibling's body or a television program), we find children aligned toward the task at hand, and see successful completion of a parent's directive. In other situations, even though children may recognize the force of the types of signs they are given, they may systematically refuse to act on them or put themselves in the types of arrangements that are required to perform the actions that the parents are attempting to initiate.

We propose that a multimodal investigation of directive trajectories is absolutely essential to any study of parenting strategies. Rather than typologizing forms of families (Baumrind, 1989), comparing families of different social classes (Lareau, 2003), neighborhoods (Kusserow, 2004), or traditions of learning (Rogoff, Paradise, Mejia Arauz, Correa-Chavez, & Angelillo, 2003), we investigate closely the practices through which parents and children align their bodies, their emotions, and their actions as they embark on getting any routine done in the household. Parents' attempts to socialize children to move through various phases of activity, and to attend to artifacts and bodily postures that crucially shape involvement in activity, requires that they give form to the phases of action that make up the sequence through closing down one activity to get to another. They also monitor children's interaction with artifacts and evaluate their practices. In our data, we observed that assessment is essential if children are to learn what is an expected demeanor and alignment toward the activity, and what constitutes appropriate steps in the process of actualizing the competent completion of actions.

By examining the superposition (Agha, 1996) or contextual configuration (Goodwin, 2000) of signs, we provide a fully embodied notion of directive trajectories. We can examine the force of the multiple sign systems building action in concert with each other, through the simultaneous deployment of intonation, gesture, body positions, touch, the distribution and handling of objects, and of course, language itself. By incorporating an ethnographic view and attending to the repertoires of forms of multimodal sign exchange visible in a family, we can understand the adaptive and complex creative hybridity of styles of parenting that adapt to ever-changing horizons of action.

ACKNOWLEDGMENTS

This study is part of an interdisciplinary, collaborative research endeavor conducted by members of the UCLA Center on Everyday Lives of Families (CELF), under the direction of Elinor Ochs. CELF is generously supported by the Alfred P. Sloan Foundation program on the Workplace, Workforce, and Working Families, headed by Kathleen Christensen. We are indebted to the working families who participated in this study for opening their homes and sharing their lives. We gratefully acknowledge the participation of Sarah Barbod, Tana Craighead, Christina Gonerkko, Alisa Gonzales, Lourdes de León, and Ryon Nixon in the Bluefoot Seminar where these ideas evolved. Erin Mays and Katrina Laygo provided their artistic talents in the rendering of images for this paper, and we are very appreciative of their work. We would also like to acknowledge our appreciation for comments from Charles Goodwin and Jurgen Streeck on an earlier draft.

1 Mom: Okay. You need to brush your teeth again.
2 Cynthia: Eleven, twelve, thirteen-
3 Mom: You- y-
4 Listen. ((moves Cynthia's face into orientation))
5 You didn't brush your tongue Ivery well.
6 Cynthia: I did.
7 Mom: 'Kay. Turn around. I'll help you.
8 Cynthia: ((turning Cynthia))
9 Mom: Huh?
10 Cynthia: I did brush my tongue.
11 Mom: Well, then you didn't brush your teeth good, Cynthia.
12 Cynthia: Yes I did.
13 Mom: NO. YOU DIDN'T.
14 Cynthia: How you know.
15 Mom: Because I can tell.
16 Cynthia: How.
17 Mom: Because your breath stinks.
18 Cynthia: No it doesn't.
19 Mom: Yes. It does(((hhs))).
20 Cynthia: No it doesn't.
21 Mom: Yes it does. Boo.
22 Cynthia: Doesn't.
23 Cynthia: ((breathes)) Don't smell anything.
24 Mom: Trust me.
25 Cynthia: ((breathes into hands))
26 Don't smell anything.
27 Mom: Okay. That's alright.
28 Cynthia: ( I my hand.
29 Mom: Come on, Boo.
30 You got to hurry up because
31 Mom: Mommy still has to get dressed.
32 Cynthia: Cheese. Good.:d.
33 Good, good, good. good.
34 Does that hurt? ((brushing Cynthia's teeth))
35 Cynthia: Mm-mm
36 Mom: Cheese. Good.:d. Don't forget
37 when you brush your teeth
38 you have to not only brush your teeth,
39 but brush your gums.

Transcript app-a.
Not hard, just soft. Gently.
Because your gums are dirty, too. Okay?
Open. Understand?
Mom: MM-hm.
Mom: And then don't forget to brush
behind these new teeth
that are coming in.
And brush those- the gums.
((mouth full, wants to spit))
Mom: Go ahead.
I don't think someone brushed
their teeth very well. Cheese.
Michelle: Is she gonna start getting cavities,
Mommy?
Mom: Maybe not because she has sealant
on her teeth.
Michelle: What does that mean?
Mom: The dentist seals your teeth
so that you can't get cavities.
Michelle: Oh.
Mom: But you still have to brush and everything
so you don't have problems.
Mom: Ah. There's pretty teeth coming in.
Look it. I see them.
Michelle: They're coming in kind a-
Mom: You know what you're supposed
to brush your teeth
for like at least a minute,
minute and a half I think.
At least. Not just
((moves brush back and forth)) spit.
Wait, Cynthia. Wait.
((spits))
Cynthia: You're gonna get it on you cloth-
okay now stick that tongue.
Mom: ((makes noise))
Mom: Stick it out again.
((makes noise))
Mom: Good. I'm gonna try to go back
as far as you can
without ( ) gagging. Open.
There we go.
Good. Okay. Now you can rinse.
((hands cup to Cynthia)) Here.
Try not to get it on your shirt.
So lean over the sink.
Cynthia: ((gargles))
Michelle: ((taking picture with camera)) Say cheese.
Mom: Let me see. Oh, beautiful. Let me smell.

Transcript app-b.

REFERENCES


