Objective. One purpose of this qualitative study was to describe the work done by mothers as they manage the spaces and objects of the home to support the development of infants and toddlers at play.

Method. Eighteen mother-infant dyads participated in the study. Data were collected via monthly in-home videotaping of infants and monthly interviews with mothers, from 1 to 18 months of infant age. Data were analyzed with a grounded theory approach and computer-assisted video and text analysis.

Results. The results describe the everyday tasks of mothers of infants and toddlers, such as selecting commercial toys and household objects for play, positioning infants for play, maintaining and making play objects available, furnishing the home with child care equipment, controlling infant access to the spaces of the home, and monitoring for safety.

Conclusion. This description contributes to our understanding of maternal work, infant and toddler development in context, co-occupations, and the neglected spatial dimension of occupation.

The relatively unrecognized work that mothers do in managing the play objects and play spaces of infants and toddlers in the home is critical to child development. Conditions in the home affect infant and toddler development through the degree to which opportunities to learn from interactions with the physical environment are provided (Piaget, 1962; Wohlwill & Heft, 1987). Mothers are the stage managers behind the play scene in the home. They are constantly engaged in infant and toddler positioning for play, toy selection, play space set-up, monitoring for safety, and controlling access to areas of the home. It is work that requires judgment, decision making, and ongoing manipulations of the physical environment (Ruddick, 1982).

An understanding of this work is also important for its own sake because it provides depth to our knowledge of the daily occupational experiences of mothers. Much of unpaid maternal work has remained relatively invisible in Western culture, including caregiving for children (Daniels, 1987; Primeau, 1992). Research on mothering has focused primarily on the mother's skills in social-emotional interactions with the infant and in meeting certain standards for infant hygiene and health (Wachs, 1990). The indirect caregiving and developmental support inherent in the management of the objects and spaces of infant and toddler play has not been studied.

The research presented here focuses on the little-stud-
ied spatial dimension of occupation. The mother’s use of the spaces and objects of childhood play to facilitate her infant’s development is one illustration of a primary human mode of adaptation—material culture. Humans have evolved, in part, through the creation of a complex culture that depends on the sophisticated use of objects, such as tools, clothing, vehicles, shelters, electronic devices, and even toys. Play is the way that children become culturally competent in the material world (Bruner, 1972).

An understanding of this maternal work may also support interventions with young children and their mothers. Knowing how the mother typically manages the play objects and spaces of the developing infant or toddler can provide insights for intervening on behalf of an infant at risk for developmental delays, a mother with a newly acquired disability, infants in institutional settings, or mothers with needs for supported acquisition of maternal work patterns.

**Method**

**Design**

This article on how mothers stage the home play opportunities of infants and toddlers reports one aspect of the findings from a study of infant-toddler spatial and temporal development (Pierce, 1996). The study’s primary purpose was to produce a substantive theoretical description of developmental progressions in infant interactions with spatial and temporal aspects of the home physical environment from 1 month to 18 months of age. Substantive refers to a level of description that is detailed enough to support practitioners’ use of the theory yet not so detailed that it is not applicable in a variety of settings (Glaser & Strauss, 1967). During analysis of the developmental progressions in how infants and toddlers were playing with the usual objects and spaces of the home, it became evident that a description of the central role that mothers played in creating, maintaining, and organizing the infant home was required.

Theoretical validity was ensured in the study through a rigorous longitudinal design, which drew on grounded theory (Glaser & Strauss, 1967) and natural history (Goodall, 1986). Grounded theory is the deliberate development of categorical descriptions of phenomena through in-depth qualitative examination of data. This approach relies heavily on comparisons of extremes of likeness and difference in the data, extensive coding, search for negative cases, and memoing to generate a robust description. Natural history is an ethological approach that depends primarily on intensive longitudinal observation of persons in natural contexts and has been used effectively in the study of nonhuman primates.

**Participants**

Participants in the study consisted of three groups: a pilot sample of four infants and their mothers, a comparative sample of videotaped wild chimpanzee infants and mothers, and a primary sample of 18 Caucasian infants who were typically developing and their mothers. Because of literature indicating that maternal and paternal perspectives on infant play are considerably different, the study focused solely on maternal reports. Caucasian mother–infant dyads were used in the interest of obtaining a relatively homogeneous sample. The mothers were enrolled as potential participants before their infants were born. Participants were selected from the Los Angeles, Orange, and San Bernardino Counties of California. The resulting sample was stratified so that the nine male infants were evenly spread across socioeconomic levels, as were the nine female infants.

**Data Collection**

In the primary sample, data were collected monthly in the home, beginning at 1 month of infant age and continuing through 18 months of age. Data included written observation records, maternal interviews, and videotapes of the infants at play. The 313 observation records addressed types of play observed, methodological issues and researcher reflections on research process, and early points of analysis. The 313 maternal interviews averaged 45 min in length (approximately 6,000 total pages of transcription) and focused on changes in the infant’s and toddler’s object play interests, use of home space, play sequencing, developmental changes in play, and maternal supports to play. Infants and toddlers were videotaped (180 hr total) in independent interaction with the usual objects and spaces of the home, yard, and neighborhood.

**Data Analysis**

Data analysis began concurrently with data collection and continued after data collection was completed. A unique feature was the use of a computer-assisted video analysis system modeled on a prototype developed for Jane Goodall’s video archive at the University of Southern California. Computer support for the qualitative analysis of video data provided the researcher with critical capabilities, including computer control of video decks, rapid and targeted negotiation through the volume of video data, on-screen clip logging and coding, and joint analysis of video and text data.

Data analysis also included extensive memoing throughout the study, compilation of an audit trail to document the emergence and construction of the theoretical description, and regular peer debriefing sessions. Coding scheme development, a critical process in the grounded theory approach (Glaser & Strauss, 1967), went through several phases, including a cross-species comparison and application to the pilot sample.

Each dyad’s entire data set (observation record, maternal interview, videotape from each of 18 home visits) was...
initially coded in developmental sequence, using interfaced video coding and text analysis software. A comparative analysis path was used to maximize important contrasting factors through a deliberate sequence in which the data set of particular mother–infant dyads was coded. For example, a male infant’s data set might be selected for analysis after completing a female infant’s, or data from an infant with multiple siblings might be examined after that of an infant without siblings. Further coding was selective, seeking fuller development of aspects of the theoretical description. For instance, the developmental sequence in infant and toddler negotiation of the space of the home was analyzed. A final written synthesis of the primary topics of the theoretical description detailed developmental progressions and relations between theoretical categories.

The topics addressed in the theoretical description of infant and toddler spatiotemporal development in the home included progressions in infant development from 1 month to 18 months of age: in gaze and visual play, in ranging over the spaces of the home, in stationary and mobile object play, in temporal organization of play, and in maternal management of the home play context. How participants’ socioeconomic status (SES), birth order, maternal employment, or other conditions influenced infant and toddler development was not analyzed.

This article reports only the portion of the study data that describes the mother’s spatial management of the infant’s home play space. The results are reported in two sections, each of which begins with a review of pertinent literature. The sections are (a) the maternal work of managing play objects in the home and (b) the maternal work of organizing and maintaining the home space to support infant development.

The Maternal Work of Managing Play Objects in the Home
The study demonstrated that much of the maternal thinking and practices of managing infant play revolve around the play objects. Examining how this work is carried out, and the situations in which it is especially influenced or prevented by broader social factors, makes visible a type of work little examined or appreciated. Yet, this is work on which infant development depends.

Toys, Cookware, Furniture, and Other Playthings: The Material Culture of Infant Play
In contrast to other animals, human adaptation requires a multiplicity of physical objects for everyday life: tools, shelters, furniture, vehicles, clothing, and more. In anthropology’s history, material culture approaches have often been used to explore meaning in non-Western cultures through examination of the artifacts of daily life (Hodder, 1989). Toys and other household play objects are the material culture of childhood. Play is a central mode of developing in the child the required skills for using the infinite variety of physical objects that are a part of human culture (Bruner, 1972).

Over history, toys have changed dramatically, reflecting changing attitudes toward children and play (Cross, 1997; McClary, 1997). The toy industry expends millions of dollars a year in persuading parents to purchase play objects for their children (Miller, 1998). The cultural messages to be found in commercial toys are value-laden and powerful. Children of today’s Western cultures are typically supplied with a greater number of objects specifically intended as playthings than were children at any other point in history.

By watching the 18 infants in their homes, it was easy to see that not all, or even most, of the things they played with were commercial toys. Once the perspective is broadened to a conception of playful interactions with physical objects, rather than commercial toys, the picture of infant and toddler play changes completely. Infants and toddlers spend much of their time playing with furniture, family clothing, steps and stairs, cookware and plasticware, telephones and televisions, doors and windows, and many other everyday objects of family life.

Supporting Infant Play in the Home Is Supporting Infant Development
Appreciation of the importance of a mother’s provision of developmental play opportunities through her management of play objects in the home requires one to acknowledge the dependence of typical development on play experience. Play is the primary occupation of the waking child. Infants and toddlers are in a uniquely concrete and externally represented mode of play and development compared with older children who are more able to mentally manipulate concepts (Piaget, 1952, 1962). This makes the mother’s work of providing opportunities to physically manipulate and explore objects of the home environment crucial to her child’s development.

Current research on infant play development primarily uses the traditional methods of psychology: a laboratory setting, spatial freedom restricted, standard sets of objects presented, and quantitative analysis of behaviors performed according to a predetermined set of categories. Play development has been documented in the increasing specificity with which infants tailor actions to objects (Palmer, 1989; Rochat, 1989; Ruff, 1984) and movement through relatively broad play stages (Belsky & Most, 1981; Zelazo & Kearsley, 1980). Positive relationships have also been found between development and object complexity and variety in the home (Bradley & Caldwell, 1984; Wachs, Uzgiris, & Hunt, 1971). The degree to which toys produce an observable change or response when acted on by a child has shown a positive relationship with development (Wachs, 1978, 1990; Yarrow, Morgan, Jennings, Harmon, & Gaiter, 1982). Little research has described self-directed infant action (Haith, 1990; Hendricks-Jansen, 1996).

Especially pertinent to this study’s focus on the devel-
development of interactions with the physical environment of the home is the infant’s development of spatial cognition. Piaget (1952) proposed that an infant’s spatial cognition develops from a newborn undifferentiated perception, to physically relating objects to each other around 10 months of age, to an increasingly sophisticated internal representation of objects and their relations by 18 months of age. In his ecological theory of perception, Gibson (1986) claimed that the child acquires an understanding of the physical world directly through interactions with the environment, which has been supported by research (Acredolo, 1990; Benson & Uzgiris, 1985; Bremner, 1989; Wellman, 1985). Theoretical perspectives on infant development are beginning to show some attention to a more active, mobile, and spatially contextual view of the infant (Belsky, 1995; Bronfenbrenner, 1995). An examination of mothers’ work in providing play experiences that support the infant’s or toddler’s development of spatial cognition in the home deepens our understanding of the developmental context of infant experience.

Selecting Play Objects

The mothers in the study managed the objects that they considered to be primarily meant for the child’s play in very different ways. Many were avid consumers of commercial developmental toys:

[My mother is] a neuropsychologist. But when I was little, my mom...[made] sure that I had every developmental toy. It’s funny because Rick...didn’t as much do that. His belief on children and having developmental toys isn’t as strong as mine. But I know where it comes from, it comes from the fact that my mom always, I mean, I had everything. (Interview, Belle, 8 months)

Other mothers did not believe that commercial toys were important in the infant’s life. Often, this group had limited finances to spend on play objects:

The mother was pretty direct about saying that the baby doesn’t really have any toys, that things have been tight, and her children mainly just play with household objects and use their imaginations. They had just gotten a baby swing at a garage sale, which seemed to be very exciting for everyone, since the baby seemed to like being in it. (Observation record, Julie, 2 months)

The mothers put considerable thought into the purchase of play objects. First-time mothers tended to have vague ideas about what they “ought” to buy and depended heavily on the toy industry’s design, labeling, and marketing. They had a strong preference for brightly colored objects for infants. More experienced mothers based their judgments more on what they saw in the developing infant’s or toddler’s skills and often had a store of outgrown infant toys from a previous child that could be readily brought into the play space. The experienced mothers tended to offer toys with better developmental timing, whereas the new mothers needed time to problem solve what type of toy would be of interest at that point:

That’s a question I ask myself, “What would you like?” That’s a big part of it, but if I want it to last, partly it’s on the basis that if I’ve read something that says children this age [would benefit from a certain toy]. Like I’m looking for the right-size blocks that she can hold in her hands. She’s supposed to like that right now. I guess it’s on the basis of, “Oh, she likes this, maybe she’d like that because it’s similar.” There’s a rattle I’ve seen that I thought she might like because it’s kind of like the one that she loves so much. I’m still kind of perplexed as to what she’s going to like. (Interview, Alison, 5 months)

Some mothers also recognized when infants were developing beyond interest in the play objects available to them. This recognition usually came about when the mothers found that the toys no longer engaged the infant, thereby limiting the mothers’ freedom to do other household work in the infant’s vicinity. The mother’s dependence on toys to occupy infants was especially true for infants without siblings. If the available play objects did not hold the infant’s attention, the mother might not be able to do the dishes or the laundry or to take a shower. This motivation to engage the infant, combined with a desire to support the infant’s development, propelled many mothers on regular excursions to local toy stores. Mothers saw fresh toys as a boon to their efforts to juggle competing task priorities.

By 8 months of age, the infants had entered a period of development where novel objects were desired in quantities. This stage could be quite challenging, especially for mothers who were not financially able to purchase many toys. Some mothers met the challenge by offering household objects for play. Other mothers preferred that the infants play with commercial toys, attempted to encourage this, and supplied a larger number of objects within the infant’s reach. However, once the infants were independently ranging over the home landscape, they sought out and explored objects constantly. Anything reachable held possibilities as a plaything. The degree to which the mother allowed access to the spaces and objects of the home restricted or expanded the developmental opportunities available to the infant or toddler.

Where mothers supported and took cues from the infant’s self-directed object choices, the play emphasis moved at this age from commercial toys to more household objects: climbing under and over furniture; thrashing magazines; carrying objects around; pulling things out of containers and storage sites, such as toy boxes, shelves, and drawers; playing with family clothing and shoes, and simply enjoying going up and down halls and in and out of rooms. At this point, kitchen cupboards became a primary play site. They were the most frequently used play site in the study, although the type of play there changed as the child matured. The cupboards offered a multiplicity of objects for interaction as well as a proximity to the mother’s household work, such as washing the dishes or cooking, which she needed to do within visual range of her infant. Some mothers encouraged cupboard play, rearranging the contents to better fit the infant’s or toddler’s interests and safety. A few mothers discouraged cupboard play. Cupboard play is a good example of the degree to which...
the mother shapes developmental play opportunities in the home and the interactive dynamic between the occupations in which the mother and infant or toddler are simultaneously engaged.

As the infant matured past 1 year of age into toddlerhood, many mothers began to focus on selecting play objects that they believed taught important concepts, such as shape-sorters, picture and talking books, puzzles, and many other educational toys. These sorts of play objects appeared to be most preferred and prevalent in the upper SES homes. Educational toys were most often used in a socially interactive type of play and rarely as independent object play initiated by the infant.

**Routes Whereby Play Objects Came Into the Home**

The routes whereby objects specifically intended for play came into the home were interesting in the degree to which they illustrate the mother's involvement in these choices, the influence of the broader culture, and cases in which the mother has more limited control. The primary route of entry was purchases at the toy store by the mother. Often, these shopping trips included the father and other members of the family. Toy marketing greatly influenced the mothers' choices. Six of the 18 infants in the study also received developmental toys every 6 weeks from a toy club promoted in a popular parent magazine.

A number of ritual events introduced, or imported, playthings and infant-care equipment into the home. The mother appeared to have less influence over these choices but was also supported in her work of managing the home space for the infant and toddler through these events, which included baby showers, gift-giving holidays, the infant's first birthday, and gift-giving from visiting extended family members.

The five mothers of first-born infants each had at least one baby shower. Groups hosting showers for these mothers were largely female, made up of relatives, friends, coworkers, and church groups. The gifts differed with group make-up but generally included infant clothing, small toys, safety devices, and infant-positioning equipment. Most of the shower gifts had an air of practicality as if the mothers were being provided with new job tools. The mothers' remarks on insights gained from the gifts, or how surprisingly useful they had been, demonstrated that these baby shower gifts embodied a passing on of important knowledge from expert infant caregiver to novice. The association of this event with the mother's first child, rather than an infant's birth, further supports an interpretation of this event as a modern-day initiation and support ritual for the new mother.

Holidays also function as toy import events, especially the traditional gift exchange celebrations of Christmas and Hanukkah. Infant and toddler gifts on these occasions were usually commercial toys. In the lower SES homes, fewer new toys generally appeared. Some mothers reported inter-generational differences of opinion about the appropriateness of toys, especially in the realm of gender-stereotyped gifts for girls. For example, one mother did not like the small pink plastic vacuum cleaner that her toddler had received from her grandmother, although the child was taking great delight in pushing it all around the house.

Another primary import event was the infant's first birthday. The types of gifts given varied with economic level. With only one exception in 18, birthday gifts included at least one large, wheeled push toy or riding toy. Girls often received a baby doll. Birthday and holiday gifts, unlike shower gifts, were given almost entirely by relatives and were intended for play, in contrast to the more practical objects given at showers to support the mothers child care work.

Extended family members also introduced objects for the infant and toddler. Visiting relatives often brought gifts, such as a stuffed animal or infant toy, which served as a catalyst for shared play with these rarely seen relatives. Female relatives frequently made cloth comfort objects (e.g., baby quilts, afghans, cloth books, stuffed animals) as gifts. Maternal aunts would pass outgrown toys and child care equipment from one household to another, as different children in the extended family were ready for them. Two maternal grandmothers passed the mothers' cherished infant play objects on to female infants. To the mothers of infant girls, the symbolism of this heirloom gift-giving was a recognition of shared feelings about raising a daughter and symbolized the cyclic repetition of relational patterns across family generations.

The routes via which play objects enter the home demonstrate the primary influences of the culture on the mother's provision of infant and toddler play objects in the home. The toy industry, community members, and immediate and extended family play a role in determining the types and number of play objects the mother makes available to the infant and toddler. Viewing this maternal work within the contexts of toy shopping and gift-giving events makes evident the degree to which the work is integrated, supported, and valued by the culture.

**Making Play Objects Available Within the Home**

The ways in which the mothers arranged objects to make them available to their infants and toddlers varied both among mothers and across their infants' development. Set-up in the early months of infant age often included a blanket on the floor or some sort of infant positioning device, such as a bouncer, and a few objects close at hand. Once the infant was competently crawling, mothers no longer routinely placed objects out for play. Rather, they positioned infants near toy boxes and toy shelves. Later, they verbally directed infants to where the objects were stored. For mobile infants and toddlers, mothers used barriers to enclose the infants within a designated play area:

*The big key is: Is the room child safe and blocked off? And then I'll just...*
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let her have at it. And...if I need her to be occupied while I’m in the kitchen...I might direct her to here to there....Sometimes, I might open a cupboard and just go, “Hey, look at this” .... (Interview, Leslie, 14 months)

With the fully mobile toddler, set-up work shifted to time spent in arranging the home environment to support independent play. Mothers rearranged kitchen cupboards, displayed toys on low shelves, and brought toy storage containers into use in the family living area. A few of the mothers used novelty-maintaining strategies—storing objects out of sight and rotating boxes of them in and out of the play area every few weeks. Mothers spent time daily, often at naptime and bedtime, picking up the variety of objects with which the infant had been playing and placing them in their designated storage sites. A few of the mothers would display the current favorite play objects at infant eye level—on a low coffee table or shelf—where the infant or toddler was likely to come upon them and begin self-initiated play. Mothers with multiple children used a less infant-focused style, storing all toys together. This approach provided a greater variety of object choices but less easy access and less accurate developmental fit.

The two single mothers in the study who resided with their parents had less control over how play objects were made available to their infants and toddlers than did mothers living in their own homes. This resulted in a different play experience. For example, at 13 months, one of the toddlers living in his grandparents’ home was videotaped playing for 20 min at a coffee table in a living room full of knick-knacks on other tables and shelves. All of his permitted and accessible play objects were on that table. Although he could walk, his independent play was restricted to the table site or to a nearby playpen. In both cases, these mothers spent more time than did the other mothers in redirecting and repositioning their infants away from objects that were within reach, but taboo for play, and the play spaces were more restricted.

The Maternal Work of Organizing and Maintaining the Home Space To Support Development

In addition to managing play objects in the home, the mothers managed home and yard spaces within which their infants and toddlers played daily. The spatial configurations of these play spaces, and the work routines through which the mothers maintained their layout and organization, were regularly reconceptualized to fit the developing child’s rapidly emerging mobility and ever-present quest for novel objects.

Research on the Impact of the Home Physical Environment on Infant Development

There is limited research on the influence of the physical environment on child development, most of which has focused on institutional environments such as schools, playgrounds, and clinics (Goodnow, 1995; Wohlwill & Heft, 1987). Several studies have shown the negative effects on development of restrictions in floor freedom through use of playpens and other infant-care equipment (Ainsworth & Bell, 1974; Wachs, 1979). Theorists have proposed that the consistent feedback available from the physical environment, in contrast to the more variable responses of the social environment, are important for the development of sensorimotor schemata (Piaget, 1952), for learning about what the environment affords (Gibson, 1986), and for development of a concept of the self through relations to the physical world (Neisser, 1991).

The Homes of the Study

Because the participants’ homes were all located in the greater Los Angeles area, suburban tracts, or apartment complexes, they reflected typical home layouts favored by commercial builders in the United States: a kitchen, an adjacent living room, and bedrooms and a bathroom down the hall or up the stairs. More expensive homes had additional shared family spaces: a den, a television room, or a family room. The larger homes of the highest SES families had multiple spaces to which infants typically were not allowed access: home offices, formal living and dining rooms, pool areas, detached garages, laundry rooms, and live-in housekeeper’s quarters. Homes of lower SES families were smaller in size, less safe, more crowded with persons and objects, had fewer objects specifically for play, and lacked outdoor space. Homes of higher SES families were expansive, toy-stocked, and complete with manicured lawns.

Despite wide variations in home space, the determining factor in the infant’s experience of the physical environment was clearly the mother’s control of the home space. Children in higher SES homes did not necessarily have more play space than those in lower SES homes because much of the higher SES home was often blocked off by baby gates or forbidden by the mother, and a designated playroom held most of the toys.

Mothers in lower SES homes allowed access to the largest percentage of the home space and used the greatest flexibility in constructing that space to fit the infant. Possibly, the pressure of the smaller spaces produced this effect. Two mothers in small homes restructured their home layouts by switching the living room furniture with the infant bedroom furniture, thus facilitating access to play objects, and doubling the available play space in the kitchen and den areas.

The mothers all changed their home space management routines as the infant developed to accommodate the infant’s increasing independence in negotiating and exploring the home play space. The homes of single children were managed in a way that was more tailored to that infant’s current developmental interests compared with the play spaces of multichild homes, which offered a cafeteria of
access and play object choices across developmental levels. Each home play space was unique. However, the greatest concentration of play objects was nearly always adjacent to the kitchen, the mother's primary household work area.

Safety and Order

The modern Western home is a space poorly fit to, and relatively unsafe for, infants and children. It is replete with sharp edges, is made up of multilevel hard surfaces, includes dangerous temperature extremes, holds many small indigestible objects, and is supplied with electricity throughout. The home is also isolated from the wider culture, thereby reducing the number of adults available for child care and the number of playmates for interaction. In contrast, for example, children in Kpelle society (Lancy, 1996) play on the “mother ground,” a village gathering place between homes, and infants are carried on their mothers backs until they are mobile. Kpelle rarely engage in conversation or play with children before the “age of sense” at around 7 years.

The mothers in the study controlled infant play space out of concerns for the infants’ and toddlers’ safety and desires to maintain an orderly home. They went to great lengths to create a safe play space with such devices as baby latches, plug protectors, coffee table corner pads, toilet locks, and “choke size” measuring devices. Mothers regularly used their own bodies to closely guard the infant attempting a daring feat, positioned themselves between the infant and unsafe objects and blocking access to forbidden areas, moved toys onto safer surfaces, and carried infants away from unsafe places. Mothers in the lower SES homes expressed more concerns over infant safety and infants away from unsafe places. Mothers in the lower SES homes expressed more concerns over infant safety and appeared to exercise more caution and restraint of the infant’s play than did mothers in higher SES homes.

Mothers were teaching their infants by 8 months of age about areas of the house that they were not permitted to enter. They taught the infants that certain objects were forbidden and that others could only be used in specific areas. Most infants learned that they only might attempt the stairs alongside an adult. Extreme differences in maternal attitudes about safety were especially evident as the infant or toddler acquired climbing skills. Some mothers forbade this type of play, whereas others cheered their youngsters on.

The Los Angeles area climate supports infant use of outdoor space year-round. The mother managed the yard as play space, but the yard was more strictly supervised than the indoor space. Infant passage through doors to the outside was supervised by an adult. In some homes in the lower SES levels, outdoor private space was limited or nonexistent. Mothers with family yards kept larger toys there, such as riding toys, sandboxes, and swing sets. Although the mothers differed greatly in the degree to which they were concerned with safety issues and control of infant access, all addressed these issues:

As I was leaving, mother admitted that her neighbor had had to stop his car the day before because Bruce was in the middle of the street. His mother was working on the new computer. She said, “He is so fast now!” Evidently, Bruce does not yet have a sense of boundaries to his home setting. Or, he does, but violated them. (Observation record, Bruce, 14 months)

Furnishing and Positioning in Play Space

Mothers also used a variety of devices designed to carry, position, or contain infants, such as slings, baby backpacks, bouncers, carriers, car seats, swings, playpens, and strollers. Most were present in all of the homes, with slightly fewer devices in the homes of lower SES families. Often, there was an area of the house that functioned as a parking lot for all of the positioning devices not in use.

The mothers reported that when positioning an infant in holding equipment, they were considering several aspects of the infant’s experience. A primary consideration was whether the positioning would successfully occupy the infant and free the mother for nearby household work. They placed infants to maximize their view of the mother and surrounding spaces. Access to objects of interest for gaze and contact was also considered. Sometimes, infants were repositioned from one piece of equipment to another to produce a fresh, attention-sustaining perspective. Infants with siblings close in age were more often placed in holding equipment to keep them safely stable or out of reach. Playpens were observed to be used in situations where siblings threatened the infant's safety or in situations of small spaces filled with available objects forbidden to infants and valued by adults. The number and variety of infant-care devices in these homes and the thought that the mothers invested in providing and making use of them demonstrate that the spatial management of the infant through infant-care equipment is a critical component of the Western mother's infant-care practices.

Spatial Ties to Family Members

A constant feature across all mother–infant dyads was the existence of a spatial tie between mothers and infants—the two appeared to be linked in space. For some dyads, this tie seemed due to the infant or toddler following the mother, and in others, it was the mother who followed. However, both mother and infant seemed aware of the distance between them, as if an unseen rubber band stretched between them, increasing in tension as the distance increased, pulling the two back toward each other. The degree to which the infant or toddler led and the mother followed appeared to determine the degree to which the infant was self-directed and exploring to the extreme bounds of the home play space. Child-directed dyads tended to occur in single-child families with mothers who did not work outside the home. Mothers with multiple chil-
children, or who did not wish to range over the home space with the infant or toddler, tended to have infants or toddlers who remained more stationary in their play. The infant's spatial tie to the mother was extended to siblings to a lesser degree. An audible sibling in another room increased the tendency of the infant to leave the mother and seek out the sibling.

Discussion
The primary value of these findings is that they ground our understanding of infant development and maternal caregiving in Western cultures in the context of the home physical environment. Too often, infant and toddler development is cast in the languages of psychology and toy marketing, creating a knowledge base that is a blend of lab experimentation in emerging infant subskills and exposure to commercial persuasion by the toy industry. The description presented here makes visible the behind-the-scenes work of mothers by detailing their daily judgments, decisions, and actions as they create play opportunities for infants and toddlers in the home. It makes real the ways in which developmental opportunities of infants and toddlers at play are created, maintained, and managed in their homes.

The mothers in this study supported and shaped infant and toddler play in the home through their management of home space and its play objects. Each mother was unique in how she went about this work and the environment within which she operated. Yet, there are striking similarities in the dynamic practices of these mothers. They used care and judgment in selecting and offering both commercial and household play objects. More ritualized cultural routes, over which mothers had less control, imported play objects, all of which exerted a high degree of choice, creativity, and individual variation in how they constructed the play opportunities of the infant in the home.

Within these cultural demands, however, the mothers exerted a high degree of choice, creativity, and individual variation in how they constructed the play opportunities of the infant in the home.

An understanding of how mothers facilitate infant and toddler development through management of home play space can support interventions that target either infant development or mothering. For instance, adapting the home play space for infants graduating from neonatal intensive care units within the restrictions imposed by medical technology is critical to the support of development (Missiuna & Pollock, 1991). For a new mother with physical limitations, her therapist's knowledge of how infants typically play in the home space will provide various strategies that can support her desire to actively nurture her infant's play. Such understanding of human occupation supports insightful practice.

This study brings to light several theoretical points regarding occupation. One point concerns the degree of interpretation of cultural values and individual construction of daily occupational choices in the mothers. The influence of the culture can be seen in:

- the effects of consumerism and toy industry advertising on the mother's thinking regarding appropriate play objects,
- cultural routes for importing toys into the home environment,
- the difficulties of single mothers still in their family home in exerting control over the home play setting,
- the impact of the nuclear family structure and home layout on infant and toddler play, and
- the mother's need for engaging play objects for the child in order to complete other household work expected within the culture.

Within these cultural demands, however, the mothers exerted a high degree of choice, creativity, and individual variation in how they constructed the play opportunities of the infant in the home.

Another point concerns the phenomenon of co-occupation. The mother's occupations of managing the home play objects and spaces for the infants are not solitary, or even parallel or shared, but a dyadic interplay between the occupations of the mother and those of the infant and toddler. Thus, the mother's occupations require and affect the child's occupations. Co-occupations can be face-to-face interactions, such as a mother and infant turn-taking in peek-a-boo play. They can also occur in alternations linked only in time and space, such as the daily pattern of the toddler carrying toys from the toy box all over the house and the mother returning them to the toy box at the end of the day. The co-occupational nature of maternal work and infant and toddler play is especially indicated by the way in which one person's occupations influences those of the other: The child's emerging mobility changes the mother's management patterns, and the mother's actions in choosing toys and allowing access shapes the child's play opportunities. Co-occupation in an important concept in light of the number of situations in which a linked pattern of occupations is key to treatment, such as that between client and therapist or client and caregiver.

Possibly the most important theoretical point made here about occupation is the description of the spatial dimension of a type of occupation. The spatiality of occupation is a neglected phenomenon in occupational therapy despite the evidently spatial nature of many of the field's central constructs. Habits, activities of daily living, tool use, activity analysis, and function are all spatially constructed, and all of our actions are spatial in their embodiment. Occupations depend on what is afforded by the physical

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environment (Gibson, 1986). Occupations are grounded in that uniquely human mode of evolution: the creation of a rich material culture. Routines, another central construct of the field, are mapped onto specific objects and spatial locations at which each step in the routine sequence occurs.

Perhaps the profession’s lack of research into the spatial aspect of occupation is due to the largely decontextualized nature of our practice. We tend to work with clients in spaces that are separate from the spaces in which acquired skills are to be used. As occupational therapy moves into more contextually intact, community-based practice (Dunn, Brown, McClain, & Westman, 1994), greater theoretical attention to the spatial dynamic of therapeutic occupations can be expected. In the future, we will select, modify, and understand the client spaces in which we are working with much greater theoretical ease and, thus, greater power (Pierce, 1998).

Summary
This study of the behind-the-scenes work done by mothers to facilitate infant and toddler development by creating, furnishing, and maintaining play space in the home explores the spatial dimension of occupation, unearths the intriguing concept of co-occupation, reveals some aspects of the expression of culture and individuality within this type of occupation, and grounds our work with mothers and children in a substantive description of the home as a primary developmental space. By making visible mothers’ important indirect work in support of infant and toddler play, our perspective on maternal and infant occupations, and on occupations in general, is both deepened and transformed. ▲

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References


Rochat, P. (1989). Object manipulation and exploration in 2- to 5-


