The Orchestration of Occupation: The Dance of Mothers

Elizabeth A. Larson

Key Words: human activities and occupations • parents of the handicapped

Objectives. This article describes the relationship of mothers’ orchestration of daily occupations, the specialized maternal work of parenting a child with a disability, and the mother’s subjective well-being.

Method. Mothers’ daily occupations and subjective well-being were studied using multiple in-depth interviews, participant observation of a day’s round of occupations, and scales of well-being. Data were treated to a recursive analysis, which included theoretical notes generated during transcriptions that identified important themes and additional points of inquiry, line-by-line coding of transcripts, and theoretical sorting of codes and regrouping, recoding. To account for patterns in the data, a relational analysis was conducted that included the generation of metaphors.

Results. Emergent findings of this analysis identified the mothers’ guiding occupational motif and eight processes of orchestration in their daily routines. The occupational motif, the embrace of paradox, directed the mother’s orchestration of daily occupations. The orchestration processes included planning, organizing, balancing, anticipating, interpreting, forecasting, perspective shifting, and meaning making. Examples illustrate the maternally driven and child-sensitive nature of these processes.

Conclusion. In their daily rounds, the mothers studied were attentive to the manner and method with which they interacted with their children to produce child-contingent occupations commensurate with their values of being a good mother. Using these orchestration processes, mothers made sense of their past, designed their present, and planned for their future within their daily occupational rounds for themselves and family members.


Orchestration is a useful metaphor for understanding the organizational structure that undergirds occupation. As commonly used, the term orchestration is the composition or arrangement of music and the combination of elements so as to achieve a maximum harmonious effect (Webster’s New Collegiate Dictionary, 1977). The root of orchestration comes from the Greek orcheisthai, to dance. Occupational science has initially conceptualized orchestration as the “ideation, composition, execution, ordering, and qualitative aspects of occupation through the course of one’s day” (University of Southern California Department of Occupational Therapy, 1989, Appendix G, p. 6). Like playing music or dancing, daily rounds are arguably rhythmic and cyclic, and desirably arranged to maximize harmonious occupational engagement.
To be a useful metaphor for occupational science, orchestration must account for the complex rhythmic, arrhythmic, recursive, nonrecursive, cyclic, linear, and developmental patterns of occupation in daily rounds throughout a person’s lifetime. As yet, the intricacies of the orchestration of daily occupations are only beginning to be articulated (Primeau, 1996; Segal, 1996, 2000).

Conceptually, this musical metaphor of orchestration holds promise in fostering study of occupational patterns. For example, in orchestration of music, a desirable harmony supports the melody and has unity, variety, and rhythm that change at intervals (Piston, 1962). These qualities of harmony are also desirable in the composition of daily rounds of occupations. The notes, which could be thought of as representing occupations, are arranged both vertically in relation to one another (co-occurring or enfolded occupations) and in parallel structures (sequenced in daily rounds) coordinated with a central tone or key (life theme or personal values). Two or more notes or occupations can be consonant, producing stable and complete sounds, compatible enactment of occupations, or dissonant, creating restless unresolved sounds, incompatible enactment of occupations. Though a promising and helpful concept for examining occupation, the dimensions or processes of orchestration that are related to the engagement in and daily enactment of occupations have not been uncovered in any depth.

Literature Review
Orchestration has been used in the literature largely to refer to complex processes that require anticipation, forethought, sifting of information, decision making, and a coordinated response. From sensorimotor responses to organizational structures, the term orchestration has been applied to processes aimed at producing well-designed and coordinated responses within the systematic constraints and affordances from the micro to macro level of systems (Bruenjes, 1994; Craigie, 1985; Eldridge, 1983; Hamilton-Dodd, Kawamoto, Clark, Burke, & Fanchiang, 1989; Harry, 1992; Leviton & Greenstone, 1984; Shandlen & Newsome, 1996; Tharp & Gallimore, 1988; Zelman, McLaughlin, Gelb, & Miller, 1985).

These studies examine common processes of orchestration. First, there is an informational dimension where taking in, sifting, and using information leads to choices, decisions, and actions (Craigie, 1985; Hamilton-Dodd et al., 1989; Shandlen & Newsome, 1996; Tharp & Gallimore, 1988; Zelman et al., 1985). This “decision making” involves a balanced consideration of all important factors (Bruenjes, 1994; Hamilton-Dodd et al., 1989; Tharp & Gallimore, 1989; Shadlen & Newsome, 1996; Zelman et al., 1985). This process also involves consideration of the environmental press, or the available constraints and resources (Bruenjes, 1994; Tharp & Gallimore, 1988; Zelman et al., 1985). The social environment is crucial when constructing well-orchestrated responses; this includes making choices that are prioritized, harmonized, and congruent with the individual’s personal responsibility within a social group (Bruenjes, 1994; Hamilton-Dodd et al., 1989).

Bruenjes (1994), a nurse, defined orchestration of health for middle-aged women as the moderating and encouraging of physical, emotional, spiritual, and environmental factors to achieve a sense of harmony or being “in tune.” She concluded that these women orchestrated or “conducted” their health via processes of prioritizing, choices, balancing, selecting moderation, interaction, and responsibility in daily activities. These processes of health orchestration emphasized interpersonal and intrapersonal aspects of the orchestration and may be useful in pointing to potential areas of study in occupation.

Both Primeau’s (1996) and Segal’s (1996) studies contribute to the understanding of how families orchestrate daily parent–child co-occupations. They uncovered parents’ strategies in orchestrating daily occupations. Primeau illustrated both the inclusion and segregation strategies parents used to incorporate parent–child play within daily routines. Inclusion strategies required parents to enfold occupations; segregation strategies meant parents stopped for play breaks during the daily routines. Segal, in studying families parenting children with attention deficit hyperactivity disorder, conceptualized an orchestration strategy of unfolding in which enfolded occupations are separated and performed at different times or by different persons to increase the children’s occupational independence and success. Beyond these findings, research also needs to begin to define the processes of occupational orchestration.

Choosing and orchestrating satisfying rounds of daily occupation is believed to be a potent influence on subjective well-being (Primeau, Clark, & Pierce, 1990). Reich and Zautra (1983) intuited that well-being was most likely related to the orchestration of occupations or the freedom to choose desired occupations and avoid undesired ones. However, their research did not bear this out. Having more desires was related to positive subjective well-being, but successfully meeting demands also related to more positive well-being, despite the occupations not being desired ones (Reich & Zautra, 1983). Mothers often make choices of occupations that are geared toward meeting the demands of parenting children—safeguarding the children’s health, nurturing their development, and socializing them to be community members—rather than their own needs. Although Reich and Zautra’s work discounts a simplistic view of the orchestration of occupation related to free choice of occupations in daily life, it does not illuminate the complexity of orchestration of occupation and subjective well-being.

Besides all the typical daily demands, mothers parenting older children with severe disabilities must often perform physical caregiving and child supervision that is as
intensive as parenting infants and toddlers. These mothers often engage in complex nonnormative caregiving routines over extended periods that require careful modifications of daily family routines to successfully accommodate the child with special needs. In addition, these mothers must coordinate daily family schedules with professionals in the educational and health care systems. Mothering a child with special needs requires additional skills, knowledge, and organization. These mothers devote more time to caregiving and household labor, which often results not only in restrictions on their personal choices of occupations, but also in limited time for sleep (Bailey & Simeonsson, 1988; Kazak & Marvin, 1984; Leyser & Dekel, 1991; Singer & Farkas, 1989). Research has demonstrated that these additional daily challenges can produce stress and periodic depression (Beckman, 1991; Breslau, Strauch, & Mortimer, 1982; Bristol, Gallagher, & Schopler, 1988; Goldberg, Morris, Simmons, Fowler, & Levinson, 1990; Kazak & Marvin, 1984; Friedrich, Wilturner, & Cohen, 1985; Shapiro & Tittle, 1990; Sloper & Turner, 1993).

This study’s aim was to uncover the complexities of the relationship of subjective well-being and orchestration of daily rounds of occupations for mothers parenting children with disabilities. The findings presented here are one part of this study of mothers’ occupations and well-being when parenting a child with a disability, an in-depth analysis of which has been previously published (Larson, 1998). This article will focus on how mothers orchestrate daily occupations to meet their maternal aims.

When a phenomenon is particularly complex, it is often helpful to study the extreme case (Patton, 1989). In this case, participants were selected whose daily rounds hypothetically compromise subjective well-being due to constraints on choices of occupations and to the frequent demands of caregiving. Given the ongoing and intensive caregiving and recognized time restrictions for mothers parenting children with severe disabilities, this group of mothers may be described as the extreme case and thereby were an important group of informants to illuminate the relationship of occupations and subjective well-being.

Method
Participants

Six Mexican-origin mothers volunteered to participate in a series of interviews and a daylong participant observation and to complete a well-being scale (Juster, Hill, Stafford, & Parsons, 1988) and the Hassle Scale (Kanner, Coyne, Schaefer, & Lazarus, 1981). Participants were recruited through an agency that provided services to children with disabilities and a local interagency coordinating council. Mothers of Mexican origin were selected because, at the current growth rate, Latinos were projected to be the largest minority in Los Angeles and the United States by the year 2000 (Vega, 1990).

Participants included three mothers who participated in a pilot study and three additional mothers who were all selected on theoretical grounds to provide variability on dimensions. A balance of mothers at either extreme of certain dimensions (i.e., perceived maternal subjective well-being, marital support, primary language [Spanish or English], generation of residence [first or second]) was sought to provide variability within this group. All of the mothers were parenting children with severe disabilities. Severe disabilities were defined as having a combination of the following characteristics: limited or absent self-care skills, severe cognitive disabilities, physical impairments, bowel and bladder problems, impaired communication skills, or severe behavior problems.

The six participants were from 27 to 42 years of age, with educational attainments varying from ninth grade education to graduate degrees. Two completed less than high school, three had some college or vocational training, and one was a physician with a master’s degree from a Mexican university. Each had two to five children and resided in predominantly Latino areas of Los Angeles. Family incomes ranged from $1,000 to $1,909 monthly (in 1994). All six worked as homemakers, with four also employed outside the home during the study.

The children with disabilities were between 5 and 11 years of age and experienced the onset of disability between birth and 3 years of age. Three had cerebral palsy–spastic quadraparesis, one had spastic quadraparesis, one had blindness and global developmental delay, and one had high-functioning autism. Four attended a classroom for students with severe handicaps, one had a home school program, and one attended a regular education class (see Table 1). All names used here for mothers and children are pseudonyms to protect their identities.

Data Collection

Data were collected through a series of interviews with each participant, a daylong observation, and two scales. The questions generated for the initial interview guide were drawn from reviewed literature, which suggested the potency of daily activity on subjective well-being, the relevance of daily interactions and well-being (e.g., hassles), the interpretive aspects of activity, limits on mothers regarding choice of occupations, and the relevance of the mother’s view of the meaning of maternal work as a coping strategy and modifier in stress (Affleck & Tennen, 1991; Bailey & Simeonsson, 1988; Breslau, 1983; Bristol et al., 1988; Crnic, Friedrich, & Greenberg, 1983; Dunst & Trivette, 1986; Harris & McHale, 1989; Margalit & Raviv, 1983; Patterson & McCubbin, 1983; Shapiro, 1989; Singer & Farkas, 1989; Wallander, Pitt, & Mellins, 1990).

The guide for the second interview was reflexively generated from the initial interviews and based on the participants’ completion of the two scales. Questions were asked...
about their view of how their life differed from families without children with disabilities, the process or changes in their life as a result of the child’s disability, their definitions of well-being, and the influence of relationships on their well-being.

The Hassle Scale and well-being scale were completed before the second interview and were used as a means to probe for additional information during the second interview. The Hassle Scale was used to examine frequently experienced minor stressors. Participants were asked to comment on items they ranked as moderate or highly stressful. Previous studies of mothers of children without disabilities given the Hassle Scale suggested that contextual hassles were better predictors of psychological well-being than major life events (Chamberlain & Zika, 1990, 1992). The Hassle Scale requests that mothers rank the severity of commonly experienced minor stressors; it has a test–retest reliability ranging from .77 to .79.

The well-being scale was drawn from the Time-Use Longitudinal Panel Study (Juster et al., 1988). It uses a 7-point Likert scale to rank five dimensions of well-being (life as a whole, income, standard of living, extent achieving success, employment). Like with the Hassle Scale, participants were asked to expand on the rankings they chose for each item. This strategy of using the Hassle Scale and well-being scale as interview probes evolved from a pilot study in which the scales fostered more informative discussions about daily stressors and subjective well-being than mothers otherwise offered. These scales were also useful for triangulation, providing an additional source of confirmation of mothers’ daily experience and subjective well-being.

After completing the questions from these two interview guides, a daylong observation was scheduled with each participant. A final follow-up interview or series of interviews were conducted to clarify unanswered or unclear points from the previous interviews and from the observation. Data were recorded through audiotapes and field notes.

A minimum of 22 hr of data was collected with each participant. Each participant was interviewed in her home, except for two interviews that were conducted elsewhere at one participant’s request. Mothers participated in three to six interviews that lasted from 2.5 to 4 hr. Field notes from interviews included documentation about the home environment, context of the interview, and interpersonal interactions. Field notes from the daylong observation included the participant’s child-care routine, daily rounds of activities, relevant household and community factors, the sequence of events, and the amount of time spent in each occupation. Typically, field notes from the daylong observations were 29 to 66 pages in length, single spaced. From 235 to 541 single-spaced pages of data were generated for each participant.

A native Spanish-speaking translator who was briefed on interview techniques and qualitative methods was present for the three Spanish-speaking participants’ interviews and observations. Audiotaped interviews were transcribed in English or Spanish and English, depending on the participant’s first language. In addition, the transcriptions of spoken Spanish were translated and included in interview transcripts. The final Spanish and English transcriptions were reviewed by four different bilingual readers who judged the quality of translation and found no systematic problems.

Data Analysis

Data analysis was an ongoing recursive process during data collection. In the research log and in interview transcriptions, theoretical notes were generated that identified major themes and additional points of inquiry that also guided evolving coding strategies. After transcription, typed interviews were exported to a qualitative software analysis pro-

### Table 1: Description of Participants

<table>
<thead>
<tr>
<th>Mother</th>
<th>Consuelo</th>
<th>Jesucita</th>
<th>Juliana</th>
<th>Mariana</th>
<th>Mariza</th>
<th>Marta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>39</td>
<td>41</td>
<td>27</td>
<td>33</td>
<td>32</td>
<td>38</td>
</tr>
<tr>
<td>Paid and unpaid work</td>
<td>Part-time hospital housekeeper; homemaker</td>
<td>Coordinator of service agency; Homemaker</td>
<td>Homemaker; part-time sales</td>
<td>Homemaker; part-time sales</td>
<td>Part-time secretary and college student; homemaker</td>
<td>Homemaker; foster mother</td>
</tr>
<tr>
<td>Language</td>
<td>Spanish, some English</td>
<td>English</td>
<td>Spanish, some English</td>
<td>English</td>
<td>English, Spanish</td>
<td>Spanish</td>
</tr>
<tr>
<td>Child and Age (years)</td>
<td>Miguel (11)</td>
<td>Sara (10)</td>
<td>Carlos (8)</td>
<td>Lucía (10)</td>
<td>Rachel (10)</td>
<td></td>
</tr>
<tr>
<td>Child’s disability</td>
<td>Cerebral palsy–spastic quadraparesis; global developmental delays secondary to febrile seizure/ Taiwanese flu; nonverbal; dependent for care</td>
<td>Spastic quadraparesis; global developmental delays secondary to series of seizures at 3 months of age; nonverbal; dependent for care</td>
<td>Autism, severe aggression and suicidal behaviors; average intellectual ability but limited social skills; fluent bilingually; independent in self-care</td>
<td>Blindness secondary to extreme prematurity; global developmental delays; nonverbal; dependent in self-care</td>
<td>Cerebral palsy–spastic quadraparesis secondary to pneumonia; global developmental delays; nonverbal; dependent in self-care</td>
<td></td>
</tr>
<tr>
<td>Family members (age in years)</td>
<td>Mother, father, son (11), daughter (8)</td>
<td>Mother, father, daughter (14), son (12), daughter (10)</td>
<td>Mother, father, son (8), son (6)</td>
<td>Mother, daughter (14), daughter (12), daughter (10), son (8), son (7)</td>
<td>Mother, father, daughter (7), daughter (5), son (3)</td>
<td></td>
</tr>
</tbody>
</table>
gram, Ethnograph. This program is a data management system that assisted in the coding and analysis procedures.

An interpretive interactionism approach framed data analysis (Denzin, 1989). This approach begins by bracketing the phenomenon by separating it into key experiential units. Initially, this includes line-by-line coding to simply name findings, which is followed by the examination of findings for key units. Once identified, these units are examined for recurrent essential features and thematically sorted and grouped. Units are then reassembled to construct theory, and the elements are relocated into real-life contexts.

Coding of Spanish–English transcripts and English transcripts was a multistep process that included line-by-line coding, repeated recordings of the entire data set with more refined codes, thematic sorting and grouping of codes that described the recurrent essential features, and a relational analysis. This recursive coding process continued until all data were coded and no new codes emerged.

Following Miles and Huberman (1984), the relational analysis included the generation of metaphors to account for patterns in the data and to connect findings to theory. This multilayered analysis was focused on maternal occupations and uncovered tacit processes that underlie maternal occupations. When describing daily occupations, participants spoke often about how they accomplished their daily occupations and the importance of this to achieving success in maternal work. These orchestration processes were implicit in the participants’ descriptions of daily rounds of occupations and were grouped and named by the researcher.

Trustworthiness of data was ensured through a reflective log chronicling the process of research, methodological, and theoretical decisions; repeated and in-depth interactions with participants; triangulation sources for alternative viewpoints, including the field notes and scales; and outside audits by a panel of experts. This panel of experts was composed of three doctoral students who were trained in qualitative methods and who had extensive experience as pediatric occupational therapists working with ethnically diverse families. Two were fluent in Spanish and English. Emergent findings were presented and critiqued periodically by this group over 1 year. In addition, member checking with a key participant was used to verify the validity of the embrace of paradox metaphor.

Findings
For these participants, their successes in mothering a child with a disability was closely linked to their feelings of subjective well-being. When queried about their subjective well-being, they often responded with, “In what respect?” and touched on their emotional state, physical health, capacity to meet the demands of mothering, the family’s health, progress toward desired goals, and the satisfaction of basic needs of food and shelter. Prominent in their responses was the link of their mothering to their subjective well-being. The participants consistently linked their well-being to their child’s progress; however, when parenting a child with a disability, success in parenting is uneven and difficult.

Life compositions, like musical ones, contain movements that build on occupational themes or motifs, reveal developmental changes in occupations across movements, and support long-term endeavors (Clark, 1993). The occupational motif that guided these participants’ current maternal occupations was the metaphor of the embrace of paradox (Larson, 1998). The embrace of paradox included the management of internal tension of opposing forces between loving the child as he or she was and wanting to erase the disability, between dealing with the incurability while pursuing solutions and between maintaining hopefulness for the child’s future while being given negative information and battling their own fears (Larson, 1998, p. 865).

These participants’ narratives revealed that although they embraced their child despite the disability, they also simultaneously rejected the disability, continuing to aspire to a more typical experience of mothering. Aside from these contradictory thoughts about their own child, participants also were torn between the opinions of others regarding the child’s future and their own hopes for improvements, solutions, and miracles. Mothers’ well-being was bolstered through a positive evaluation of their circumstances, a perception of control in their life, and a sense of optimism that evolved from their embrace of this paradox. Striking an optimistic stance favoring possible progress was vital to continuing ongoing maternal work. Coming to terms with the disability through this stance sustained these participants’ maternal work. This occupational motif, the metaphor of the embrace of paradox, guided the mothers’ orchestration of daily occupations.

Processes of Orchestration of Occupation
These participants, guided by their occupational motif, used eight thought processes to compose maternally driven and child-sensitive individual occupations and daily rounds of occupations. The orchestration processes included planning, organizing, balancing, anticipating, interpreting, forecasting, perspective shifting, and meaning making (see Table 2). These thought processes appeared to undergird and structure the participants’ rounds of occupations and were constrained and afforded by the participants’ personal and cultural values and the personal resources available to them in the family’s ecocultural context (e.g., the husband’s or other family members’ participation in household work or child care, family finances). After a description of the processes of orchestration, an illustration of orchestration within the single occupation of “feeding the child dinner” will conclude the discussion of the findings.

1Qualis Research Associates, PO Box 2070, Amherst, Massachusetts 01004.
2The findings presented here are only one part of this study of mother’s occupations and well-being when parenting a child with disability (see Larson, 1998).
Planning and Organizing an Occupation

The participants frequently spoke of how additional planning or organization, the first two processes in orchestration, were needed to successfully complete all of their daily plans. Planning, as used here, is a method to achieve maternal aims by putting intention into action. This includes conceptualizing in advance strategies that make occupations expedient by putting intention into action. This includes conceptualizing strategies that make occupations expedient and well designed. Organizing is a configuring of occupations into a functional routine and workable sequence.

Planning and organizing occurred on both a small scale at the level of the single occupation and a large scale in daily and weekly routines. For example:

I wash my clothes on Tuesdays or Fridays...and then on Saturdays, iron everything for the whole week. Or if I...didn't have the clothes [done] then I would do it the day before [for the next morning].

Most of the participants found it difficult to organize a routine that addressed all the things they would like to do. As previous research has suggested, time was a precious and fleeting commodity for mothers (Chamberlain & Zika, 1990). “I try to...do everything [each] day that I have to do, but sometimes...24 hours is not enough.” Two of the working participants, Jesucita and Mariza, hired child-care workers to expand the number of occupations that could be accomplished in the service of the child and family’s needs.

The greater the time constraints, especially for Mariana when she both worked and parented, the more crucial was organization to meeting all of the mothers’ aims:

I would like to get better organized. I lack a little bit of organization. I sometimes feel I cannot do [everything]. There are too many things that I have to do that have accumulated. More than anything I have to do chores because if I [don’t], I do not feel good....I try to do a little of everything. I feel stressed all day, and I sometimes feel like taking a nap....But I cannot fall asleep....I am thinking, “I am going to do this, I am going to go there, I am going to go there tomorrow.” And I cannot fall asleep....Because I still cannot get organized.

Later, better organization and quitting paid work led to greater satisfaction for Mariana because she was able to do more of the things she desired: “Now that I don’t work, I give myself the opportunity to think things out [plan], and organize. I am not pressed for time anymore.” This change still did not include more rest, personal time, or leisure but rather a greater devotion of time to activities that would promote her son Carlos’s independence. In both circumstances, with too little time when working for pay and with sufficient time when working only as a homemaker, Mariana demonstrates the link of the experience of occupation and its orchestration. Inability to fit occupations into an organized routine and complete them daily created a cumulative stress that disrupted rest, whereas greater satisfaction was derived from a well-planned daily round.

Planning was especially important in order to live life consciously rather than being rushed. For Jesucita, the lack of planning led to feeling that she was living life on automatic pilot:

Go[ing] through a day seems automatic—not even thinking about what I’m gonna do the next day. It’s just like, wake up in the morning and go through the series of tasks, the things I need to do, without really thinking: “What am I looking forward to? What am I gonna be doing in the [next] 5 minutes? What’s my plan?” I’m just so busy living and doing that I don’t often stop to think where I’m going.

Balancing an Occupation

The process of balancing, taking into account the interests, preferences, and desires of family members when organizing occupations, required that the participant harmonize, prioritize, and negotiate with the family in orchestrating occupation. One family member can be “out of tune” with the rest, creating stress for the entire family. Again, Jesucita’s family demonstrated this:

We’re just all so tuned in....It’s the kids and I....[My husband]...sometimes he’s totally off....[My son] started calling him Mr. Monkey Wrench. That gives you an idea...because sometimes we’re all like harmonized [about] what we’re gonna do, and he’ll come and totally change the plan....it creates a bit of anxiety because they’re not sure what’s gonna happen after all....I like to plan things....I don’t like a lot of changes.

Sometimes the “out-of-tune” family member was the child with a disability. In both balancing and organizing, the participant frequently chose to work around the child to accomplish necessary occupations, such as those of providing food and shelter. Mariana and her husband sometimes left Carlos with a babysitter for 2 or 3 hr a week so that they could go shopping for groceries or other purchases. Carlos’s frequent tantrums in public places, especially when his demands for a new toy or attention were not immediately met, disrupted the shopping and made it difficult for Mariana to make her selections and shop in a timely manner. Not taking Carlos allowed Mariana to more efficiently complete shopping with a minimum of stress.
In the case of Mariza's daughter, Lucita's unpredictable moods sometimes meant that family outings were planned to exclude her. Mariza chose to exclude Lucita on some outings with her other four children so that everyone could enjoy the event:

It's kind of hectic for me. And sometimes...when I don't want to go through that, I leave her with my mom...I don't know how she's gonna react [from day to day]...if she's gonna be comfortable or she's gonna be mad...or upset. I mean, it demands...It's more for [my other children that I leave her with my mom].

The orchestration process of balancing requires that the mother make key decisions about priorities in sequencing and synchronizing occupations. This required selecting dominant occupations among the competing needs of the family members that form the core pattern of daily rounds, arranging consonant enfolded occupations when possible to meet multiple needs simultaneously, and arranging compatible times and series of occupations among family members. Mothers considered their multiple responsibilities of managing the home to provide healthy meals, a clean environment, and acceptable clothing; of fostering their children's growth and development; of creating a harmonious family environment; of managing the family's financial resources; of adding varied, interesting, and enjoyable occupations to the family routine; and of meeting individual and group family member needs when balancing occupations.

**Anticipating in Occupation**

Often, the participants tailored many of their maternal and household occupations to be responsive to their child, anticipating what procedures were the least disruptive and most sensitive to their child. Marta described how she prepared in the morning by getting out the child's clothing, diaper, and braces, even before waking the child, "I start changing her slowly like this...and I move her feet, I am preparing in the morning by getting out the child's clothing, diaper, and braces, even before waking the child, "I start changing her slowly like this...and I move her feet, I am talking to her or I hold her for a while [before I put her braces on]." Mariza described a similar child-sensitive, child-contingent, highly organized morning routine:

I change my routine because sometimes Lucita is still asleep, and I don't wake her up until I'm ready...I have everything in the car. So the last thing I want [to do] is change Lucita...I give her a licuado, her [breakfast] shake, and then everything is ready, so I just change her, and then comb her hair...put her in the car, and let's go....And it's working because...it gives me more time to stay...a few minutes in [her] class [and talk to the teacher].

This process of anticipating child-sensitive methods for performing an occupation required advanced foresight of the requirements of the occupation that will occur immediately (temporally proximate) or later (temporally distant) in the day. Several participants described how they dress the child for the activities they will do that day:

I write down on Miguel's calendar where they are going in the after-school program. I have to [look and] see [what] Miguel's activities [are], the ones he does in the morning. Like if he has sports in the morning, I put on his sports clothes, or if in the afternoon he has a party or something [I dress him for that].

Foresight about the possible contingencies that need to be provided for in daily occupations was wide ranging. Participants anticipated their child's moods and cycles and orchestrated occupations around them. This included knowing the child's fussy time, nap time, play time, or meal time. These mothers provided toys, played music for the child, or "worked" with the child during specific routine times in the day, based on the child's mood and their own schedule.

Participants also anticipated the strategies and methods necessary for their child's safety, comfort, or participation. After Rachel had come home from school with scratches, both accidentally self-inflicted and caused by another child on the bus, Marta began to cross Rachel's arms across her chest and wrap them inside the blanket for travel on the bus to prevent further injuries. Both Marta and Mariza, conscious of past illness, were careful about dressing the children in coats, hats, and blankets when traveling to school. Mariana, to get Carlos to eat, put cards from a game he liked next to him at mealtime as a promise that if he ate well, they would play the game. Juliana, knowing from school personnel that her son tossed out his school breakfast and lunch untouched, insisted that he eat breakfast at home.

**Interpreting in Occupation**

Interpreting, the fifth of the occupational processes, is the mother's conception of her child's desires, needs, preferences, and wants drawn from the child's nonverbal and verbal cues, which are then used to design occupations. This process may be unique to this group of mothers because the majority of children were nonverbal. "[Lucita] doesn't tell me [how she's feeling]. I really don't know. I have to guess." The ability to understand their own children's needs was crucial to the mother's perception that she was meeting her child's needs. In desiring to be a good mother and to organize occupations that were beneficial to fostering the child's development, promoting the child's independence, and pleasing the child, participants needed to interpret the child's communications and reactions to caregiving and other events. Following are the descriptions of Mariza and Jesucita, respectively, interpreting their child's cues and the relation to occupational selection:

[When she's in a good mood] she's clapping, she's laughing...But when she's in a bad mood...she starts biting herself. That's when I know she's not comfortable, and she just don't want to be in the chair anymore.

I usually end up cleaning, picking up...clearing dishes and washing them. And at that same time, I'm on my own with Sara...and she is really fussy during that time. So I have to constantly be running to either put weights on her hands if she's drooling, or bring her, and sit her [wheelchair] next to me at all times, or [get] one of the kids to read to her.

Marta said, "When Rachel hears the noise [of the cel-ophane package of pork rinds], she starts chewing and...then she says 'uh, uh,' and I put one in her mouth and she eats it.” Although these children's cues were often
incredibly subtle from a stranger’s point of view, these mothers were able to decipher the child’s emotions and wants based on a broad range of subtle nonverbal expressions, physical movements, or limited verbal skills. An exception was Andrew, who was autistic and was able to express his needs verbally.

The ability to interpret was very important to the participants. Difficulty in discerning the child’s wants or hurts, especially when visible injuries were unaccounted for, led the participants to thoroughly investigate all incidents with whomever was in charge of the child’s care at the time: “When he gets home with a little [injury] I always...call and ask them to please tell me what happened because he cannot.” Another difficulty in this respect was assisting other persons to understand their child: “We try to get what he wants. But it is very hard and even harder to make other people understand him.”

**Forecasting in Occupation**

Forecasting, as a process in orchestration, is temporally distinct and distant from anticipating, which occurs within the immediate present. Forecasting is located in the projected future. Based on current circumstances, mothers predicted possible futures for their children. Forecasting included the possible acquisition of self-care skills or learning to talk or walk. Although the children at the time often lacked many of the basic underlying skills to walk or eat independently, their mothers seemed to adhere to the philosophy that the journey toward independence began with a single step. A mother’s desires and concerns for the family and the child’s future were evident in forecasting.

Unlike children without disabilities whose changing bodies and maturing behavior push the parent along to a revised view of the child, Jesucita experienced her daughter, Sara, as being in a time warp.

She has cousins that are a year older and a year younger....I see what they’re doing. Kids do different things...depending on whatever the fad is. So I wonder what kind of fashion, what kind of clothes [Sara] would like, what kind of movie, TV programs, what would be happening to her. And I start to think, “What was [her sister] doing at that age?”...But I try to picture her, and I miss that....She's going to need is. So I wonder what kind of fashion, what kind of clothes [Sara] would like, what kind of movie, TV programs, what would be happening to her. And I start to think, “What was [her sister] doing at that age?”...But I try to picture her, and I miss that....She's going to need new tennis shoes soon. And I'm thinking I'm going to see what other 10-year-olds...are wearing....She used to love clothes.

In this example, the participant made efforts to keep a temporal coherence for the child by dressing her in age-appropriate fashions that the child might enjoy. Forecasting was part of the temporal work the mother does in orchestrating the occupations of maternal work attending to both the present and the future.

**Perspective Shifting and Meaning Making in Occupation**

As overarching processes, these last two processes of orchestration are different in order from the previous six processes. Perspective shifting and meaning making were part of the participant’s reflective interpretation of her behavior as she engaged in occupation and were central to her hopefulness and concern about her child’s development. These processes often included the management of “crashes” or disruptions in the mother’s plans for her child’s care and progress, her persistence in maternal work, the shifting and often spiritual view of her child, and the increased appreciation for the preciousness of human life.

The management of frustrations and the ability to continue on with demands in the orchestration of occupations occurred through the process of perspective shifting and meaning making. After receiving the diagnosis of the child’s condition or coming to a full realization of the impact of the child’s disability (once the child was medically stable), most of the participants experienced a stage of immobility and inactivity. Once they decided to actively address their child’s disability by reorganizing the household around the child’s special needs, finding professional services, and learning to manage the child’s care, these mothers rebounded emotionally. This emotional shift was facilitated by changing their view of the difficulty and believing in God and assisted the mothers in moving beyond discouragement and limited engagement in occupations. Perspective shifting involved the revision of previous events and their meaning as related to ongoing occupational engagement and choice.

Meaning making, which seemed to frequently occur in tandem with perspective shifting, was the finding of alternative spiritual, meaningful, and optimistic explanations for life circumstances and occupational patterns. For typical families, it is only when subjective well-being is gauged as life meaning that parents have higher levels of subjective well-being than nonparents (Umberson & Gove, 1989). For mothers whose children have disabilities, making sense or meaning making may be even more essential to their subjective well-being.

These two processes were used to come to terms with the impact of the child’s disability and accept the altered lifestyle the disability imposed on caregivers, to maintain hope in the face of pessimistic advice, to see the early marital struggle over the disability in a new light, and to love the child despite the disability. These emotional and mental processes had an impact on the participant’s selection and engagement in occupation. Though not all ‘practicing’ Catholics, the participants described God and faith as essential to going forward and “not being defeated” in their daily struggle. The reflections of Consuelo, Juliana, and Mariana, respectively, illustrate this:

Faith in God is what keeps us going trying to understand Miguel’s reality in a nice way...to understand Miguel is a different path sent by God to know the world better.

I tell [God], “You have a reason for sending him to me.” It is hard. It is hard because accepting is one process and living with [him] is another process.

I feel that I have learned to live with what I have, and besides to start forgetting all the bad things and think of the good things....Maybe that
Consuelo even engaged in myth making surrounding Miguel’s disability. For example, she suggested that he does not talk because she dreamed of coaxing him to say sweet things to her about what a wonderful mother she was and, instead of lying, he won’t speak. Or that he does not walk here on earth because he walks above the earth being closer to God. Mariza also saw her daughter as a more pure spiritual being who was closer to God.

These last two processes, perspective shifting and meaning making, seemed to have a global influence over daily occupations and the mother's subjective well-being and had a guiding influence over the orchestration of an individual occupation. These findings reflect what other research has suggested about the powerfulness of life meaning in maternal work in relation to maternal subjective well-being (Umberston & Gove, 1989; Zika & Chamberlain, 1992) and occupation.

An Illustration of Orchestration in an Occupation

The inception of occupation differed among and between participants because of individual preferences and values. As illustrated in Table 3, the chunk of occupation called “feeding a child dinner” varied among participants in form and components partly because the participants orchestrated the occupation specifically to meet their child's special needs, to be in harmony with their values, to fit within that day's routine, and to fit the family's context.

The differences in each participant’s dinner routines is compared in Table 3 across all the processes of orchestration of occupation (except for perspective shifting and meaning making, which were more global in their influence on this occupation). This analysis shows commonalities and differences in “feeding the child dinner.” Common among all the dining routines was the participation of the mother–child pair, the consumption of food, and emphasis on the healthiness of the diet. Differences appeared in the orchestration processes of planning, organizing, balancing, anticipating, forecasting, and interpreting and were uniquely configured for each family. Differences also appeared in the sequence, strategies, space, number of additional participants, and timing of the dinner routine.

The child’s disability also had a decisive influence on the structure of the occupation of “feeding the child dinner,” and demonstrated the participant's responsiveness to the child’s needs. Low child insistence and high child contentment allowed the participant greater flexibility in the processes of planning, organizing, and balancing. For example, both Lucita’s and Rachel’s dinner times were highly deferrable, whereas during Carlos’s dinner, he was the center of attention, and parents traded off in his supervision so that his mother could clean up after dinner. Anticipating and interpreting were more vital for the mother when the child was nonverbal and had limited...
communication. Among the children who were nonverbal, participants had developed sophisticated interpretations of their children’s gestures, facial expressions, and sounds. Their forecasts were often related to the child’s comfort, health, and the mothers’ future ability to give care. In these examples, the process of forecasting linked the present and future and embedded the mothers’ goals and plans in the daily routines.

**Discussion**

This research depicts how mothers’ orchestration of occupation is related to an occupational motif, and includes “ideation, composition, execution, ordering and qualitative aspects of occupation” (University of Southern California, Occupational Therapy Department, 1989) within a single occupation and throughout a day’s round of occupations. Guided by the ethos of paradox, these mothers used eight processes to orchestrate their daily rounds. These processes provide both an elaboration of the definition of orchestration and demonstration of the variations in the temporal levels at which orchestration occurs. Through the orchestration processes, the temporal horizons of life merge within a single day’s occupations. Mothers make sense of their past, design their present, and plan for their future within their daily occupational rounds for themselves and family members.

The temporal horizon is apparent in the orchestration within an occupation, the orchestration of a series of occupations, and the inclusion of occupations within daily rounds aimed at creating future possibilities. Within an occupation, participants were attentive to the manner and methods with which they interacted with their children to

---

**Table 3**

**Orchestration in "Feeding the Child Dinner"**

<table>
<thead>
<tr>
<th>Process</th>
<th>Consuelo–Miguel</th>
<th>Juliana–Andrew</th>
<th>Mariana–Carlos</th>
<th>Jesucita–Sara</th>
<th>Mariza–Lucita</th>
<th>Marta–Rachel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning</td>
<td>Fed Miguel a diet similar to family's diet.</td>
<td>Fed Sara a diet similar to rest of family.</td>
<td>Fed Lucita the same diet as rest of the family.</td>
<td>Fed Rachel a diet similar to rest of family.</td>
<td>Fed Sara a diet similar to rest of family.</td>
<td>Fed Sara a diet similar to rest of family.</td>
</tr>
<tr>
<td></td>
<td>Food was prepared in bite size pieces.</td>
<td>Frequently used nutritional supplements when Sara did not eat meals.</td>
<td>Food prepared in bite size pieces.</td>
<td>Food prepared in bite size pieces.</td>
<td>Food prepared in bite size pieces.</td>
<td>Food prepared in bite size pieces.</td>
</tr>
<tr>
<td>Organizing</td>
<td>Included additional time in schedule for Miguel’s slower eating.</td>
<td>Mothers make sense of their past.</td>
<td>Watering Carlos’s lack of chewing.</td>
<td>Watering Carlos’s lack of chewing.</td>
<td>Watering Carlos’s lack of chewing.</td>
<td>Watering Carlos’s lack of chewing.</td>
</tr>
<tr>
<td></td>
<td>Alternately fed Miguel and then ate her own meal.</td>
<td>Their forecasts were often related to the child’s comfort.</td>
<td>Feeding Lucita was deferrable depending upon pressing demands.</td>
<td>Feeding Lucita was deferrable depending upon pressing demands.</td>
<td>Feeding Lucita was deferrable depending upon pressing demands.</td>
<td>Feeding Lucita was deferrable depending upon pressing demands.</td>
</tr>
<tr>
<td>Balancing</td>
<td>Family began meal together but Miguel and Consuelo remained until he had finished.</td>
<td>Served younger brother first and then spent longer with Carlos assisting him in eating while she also ate.</td>
<td>Combined feeding.</td>
<td>Combined feeding.</td>
<td>Combined feeding.</td>
<td>Combined feeding.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>During second meal time with husband Carlos sat with his father and finished a drink.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anticipating</td>
<td>Knew that Miguel will eat what is given, didn’t feed him sweets because he didn’t like them.</td>
<td>Devised strategies for Carlos to encourage eating (playing games while eating or immediately after).</td>
<td>Expected that Sara’s “gassiness” may slow down eating.</td>
<td>Expected that Sara’s “gassiness” may slow down eating.</td>
<td>Expected that Sara’s “gassiness” may slow down eating.</td>
<td>Expected that Sara’s “gassiness” may slow down eating.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Threatened Andrew with loss of video games or other desired activity if he wouldn’t eat.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interpreting</td>
<td>Watched Miguel’s animated facial expressions to determine reaction to the meal.</td>
<td>Noted that Carlos failed to eat when he was not hungry.</td>
<td>Recognized food as one of Sara’s few pleasures.</td>
<td>Recognized food as one of Sara’s few pleasures.</td>
<td>Recognized food as one of Sara’s few pleasures.</td>
<td>Recognized food as one of Sara’s few pleasures.</td>
</tr>
<tr>
<td></td>
<td>Asked questions and assumed answers without obvious facial expressions to the contrary.</td>
<td>Queried child about what food he would like and if he wanted more.</td>
<td>Observed child’s drooling and sounds to determine her like or dislike of food.</td>
<td>Observed child’s drooling and sounds to determine her like or dislike of food.</td>
<td>Observed child’s drooling and sounds to determine her like or dislike of food.</td>
<td>Observed child’s drooling and sounds to determine her like or dislike of food.</td>
</tr>
<tr>
<td>Forecasting</td>
<td>Reduced sugar in Miguel’s foods by substituting honey to prevent cavities.</td>
<td>Concerned about Carlos’ weight and amount of food intake.</td>
<td>Concerned about Sara getting too heavy for lifting and caretaking.</td>
<td>Concerned that Lucita was heavy to lift, had hopes that she will walk.</td>
<td>Concerned about anemia.</td>
<td>No particular concerns were expressed about Rachel’s future weight.</td>
</tr>
</tbody>
</table>
produce child-sensitive, child-contingent occupations commensurate with their values of being a good mother. At the molar level of occupation, the participants’ selection, sequencing, enfolding, and synchronization of occupations included considering competing demands, including the needs of the child with a disability, the other family members’ individual needs, and the needs of managing the entire household at the same time. In some cases, the child with a disability was the predominant consideration in rounds of occupations during some time in their development, depending on the child’s demandingness or contentedness. In other circumstances, other family members’ needs emerged as the predominant influence on the participants’ selection and sequencing of occupations. Long-range considerations also swayed the orchestration of occupation to plan for projected future possibilities and goals for all family members.

As suggested in the initial musical metaphor, orchestration holds great promise for elucidating the complex patterns of occupation in which human beings engage. This study considered how occupations may be arranged in compatible or dissonant ways and how the organization of linking or overlapping occupations affects well-being. In addition, further research may examine how patterns of occupation, such as habitual occupations, counterbalance and support the melodies (priority or dominant occupations) of our lives. Likewise, the musical terms that describe the phrasing of music could be helpful in exploring orchestration. How do persons select coordinated sequences of occupations (phrases) and shifts in occupation (ends of phrases) to create daily routines (formal structure) that include rest and inactivity (places for the performer to breathe)? Lastly, what determines the time signature and tempo of a person’s lifestyle—is it leisurely, businesslike, or rushed?

This article is a beginning attempt to clarify the intricate configurations of occupations with which persons compose their lives on a daily basis. Future research may ferret out common orchestration processes that are used by the general population or by specific individuals with disabilities, may differentiate between the preconceived orchestration and the daily improvisation or recomposition that occurs in occupational rounds, may uncover the ways orchestration processes are culturally transmitted, may examine the relationship of life span development and orchestration of occupations, may investigate the relationship of characteristics of orchestration and the person’s occupational experience, or may explore the influence of occupational rounds configurations to health and well-being. Understanding these intricacies of orchestration of occupations can bolster occupational therapy’s knowledge to enhance wellness and to provide therapeutic applications for orchestration and recomposition of occupations after disability.

Acknowledgments

I thank Florence Clark, PhD, OTR, FAOTA, for her encouragement in this research and acknowledge her instrumentality in bringing the concept of orchestration to the forefront in occupational science. This study was completed in partial fulfillment of the requirements for the Doctor of Philosophy degree in Occupational Science at the University of Southern California.

References


## Coming in July/August

- Effectiveness of Everyday Occupations for Changing Client Behaviors in a Community Living Arrangement
- Occupational Therapy Assistant to Occupational Therapist: Factors Influencing Professional Development
- Children With Burn Injuries: Purposeful Activity Versus Rote Exercise
- The Discovery of Disability: A Phenomenological Study of Unilateral Neglect

Turn to *AJOT®* for the latest information on occupational therapy treatment modalities, aids and equipment, legal and social issues, education, and research.