

CHAPTER 5

THEORETICAL PERSPECTIVES ON THE EXOSYSTEM

As described in the Introduction, the exosystem is composed of contexts that influence the child indirectly. The exosystem influences the child's experiences through its impact on the individuals and institutions in the child's microsystem. Lori Takeuchi describes digital media, such as television, computers, and handheld games, as exosystem phenomena. These external devices enter the home and influence parent-child interactions. Julia Henly describes parents' workplaces and community networks as contexts that are external to children but nevertheless influence their everyday lives. Specifically, parents' decisions about child care arrangements influence children's learning and developmental experiences. These decisions, in turn, are based on workplace conditions and the availability of child care through a network of friends and family.

MEDIA IN THE LIVES OF FAMILIES WITH YOUNG CHILDREN

Lori Takeuchi

U.S. children are consuming more screen-based media than ever before. Children ages 6 months to 6 years spend 2 hours, 8 minutes per day with all forms of screen media, 32 minutes more than they did in 2005 (1 hour, 36 minutes). Television is still a favorite among 0–8-year-olds—in 2011, they watched on average 1 hour, 40 minutes of video content per day—but **digital media** use is on the rise. Sixty percent of 5- to 8-year-olds have played a handheld game, 81% a console game, and 90% have used a computer. Meanwhile, children are reading fewer books; in 2011, young children spent 29 minutes per day reading or being read to, down from 40 minutes per day in 2005 (Common Sense Media, 2011).

Television and digital media can be described as **exosystem** phenomena because they enter the home from an external source and affect parental interactions with children. The observations that psychologist Urie Bronfenbrenner made about television in the 1970s are relevant for a range of screen-based media today. "Like the sorcerer of old," he wrote, "the television set casts its magic spell, freezing speech and action and turning the living into silent statues

so long as enchantment lasts. The primary danger of the television screen lies not so much in the behavior it produces as the behavior it prevents—the talks, the games, the family festivities and arguments through which much of the child’s learning takes place and his character is formed” (Bronfenbrenner, 1974, p. 170).

The Interplay Between the Digital Media Industry and Family Interactions

As parents and children alike engage with a greater variety of media on a daily basis, how are family routines shifting? To evoke Bronfenbrenner’s concerns, what can we expect in the way of the behavior digital media produce as well as the behavior they prevent? An ecological perspective on development focuses our attention less on a child’s direct interactions with these tools and more on how these tools mediate interactions between the child and other people.

The *connectivity* and *mobility* of digital platforms set them apart from television in terms of the opportunities and risks they pose to interpersonal interaction. E-mail, “productivity software,” and BlackBerries, for example, have revised the ethos of the American workplace in such a way that employees are expected to accomplish far more in a day than ever before, and be available even after they’ve physically left the office (Derks & Bakker, 2010; Towers, Duxbury, Higgins, & Thomas, 2006). Whereas location once demarcated one’s roles as employee versus parent, today parents can tote work to their kids’ soccer matches and sometimes even to the dinner table. When parents do finally break from work, they may be drained and, consequently, satisfied to hand their child a cellphone or iPad while they catch up watching their backlog of DVR recordings.

Some producers of digital media are acknowledging this phenomenon of parents handing kids their mobile devices to keep them occupied—what Chiong and Shuler (2010) call the “pass-back” factor—by creating mobile applications that even toddlers can use unaided by an adult. In many ways, apps are more versatile babysitters than TV sets because they are responsive to the child (interactive) and can be taken anywhere (mobile)—restaurants, grocery checkout lines, the bus, and long drives in the car. Since sales of tablet devices such as the Apple iPad and Kindle Fire have skyrocketed (Rainie, Zickuhr, Purcell, Madden, & Brenner, 2012), so too has the availability of e-books and book apps for young children. E-books maintain the text and image characteristics of print books, but can also add audio narration, word highlights, clickable glossaries, embedded videos and games, and hot spots. Now that devices can read stories to preliterate children, what becomes of bedtime story routines? At least for now, old and new platforms appear to serve distinct roles in family reading practices: Based on a 2012 survey of 462 tablet-owning parents of young children, families still prefer reading print books together, whereas e-books are more often used for solitary, pass-back situations (Vaala & Takeuchi, 2012).

We begin to run into trouble when digital media support too much solitary activity, when adults and children become so engrossed by the iPads and BlackBerries in their hands that they fail to interact with each other. The portability and connectivity of devices have helped spawn the type of family whose members are too often, according to Turkle, “alone together, each in their own rooms, each on a networked computer or mobile device” (2011, p. 280). Campos, Graesch, Repetti, Bradbury & Ochs (2009) observed greeting behaviors in 30 dual-earner families, and found some children to be

so preoccupied with the TV, video games, or phone that they often failed to acknowledge their father's arrival home from work, despite a documented universality of welcoming practices after periods of separation. Are our media-saturated homes to blame for these modern-day manners?

Fortunately, some media producers are thinking less about the pass-back and more about how technology can connect family members as well as other people. "StoryVisit," for instance, uses Skype to link distant family members in real-time reading of an e-book that parties can simultaneously see. An animated Elmo from "Sesame Street" asks dialogic reading-style questions and comments on story elements, keeping children entertained and providing a scaffolding model for adults (Raffle et al., 2011). Video VoIP applications like Skype and FaceTime are in general altering the boundaries of the **microsystem** by enabling children to meaningfully engage with people not in their immediate settings. Today, kindergartners in Brooklyn, New York, can videoconference with their counterparts in Vienna, Austria, and actually get to know them as individuals. Research in elementary schools has found that these interactions can deepen multicultural understanding across international borders (Cifuentes & Murphy, 2000).

Digital Media for Learning

Of course, not all children have access to the same variety or quality of digital media at home, and this is where schools can extend their roles as the great equalizer. In 2006, 98% of K–12 schools in the United States reported having broadband connections (National Center for Education Statistics [NCES], 2006), whereas home broadband adoption rates leveled off in 2009 at roughly 65% (Fox, Waters, Fletcher, & Levin, 2012). Lower-income, Hispanic, and African American families depend more on schools—along with libraries, afterschool centers, and other community-based organizations—to access the Internet (Warschauer & Matuchniak, 2010; Zickuhr & Smith, 2012), places where children can conduct research for their homework and where their parents can locate jobs and family resources. These institutions are also positioned to provide families with guidance on how best to utilize digital resources, as evidence suggests that children from disadvantaged households are more likely to "waste time" on the Internet, video games, and mobile devices (Richtel, 2012).

Most schools in the United States may be wired, but many still operate by pedagogical conventions established in the 20th, if not 19th, century. However, just as technology has transformed the commerce, transportation, medical, communication, and entertainment sectors of society, it has the potential to transform the nation's formal education system. Over the past decade or so, researchers have been studying the enthusiasm and agility with which children are appropriating digital media to develop deep expertise on topics of personal interest to them *outside* of school (e.g., Barron, 2006; Ito et al., 2009; Stevens, Satwicz, & McCarthy, 2008). Educators can thoughtfully apply this research to support similar pathways of learning in school settings. They can begin to discuss questions such as: How can technology be used not just to deliver curriculum, but also to redefine relationships between child, teacher, and content to make for more child-centered experiences? What can be learned from commercial video-game producers about motivation? And how can mobile devices be deployed in ways

that take students outside the classroom and engage their concerns about the environment and community?

Conclusion and Implications

Digital media alone do not determine how people behave, how they think, what they eat, or the ways in which they interact (or don't) with other people. The individual—child and adult alike—ultimately decides whether and how to use a device, which in turn determines how it will affect them and those around them. This requires a mindfulness that young children often lack but that parents and educators can help nurture in the ways suggested below.

Map digital platforms to children's developmental needs. Children today have access to a wide array of media platforms. However, many of these platforms were originally designed for adult use. When selecting media for children, make sure they support children's developing cognitive, social, and, now, motor and visual capacities, given the availability of gesture-based (e.g., Nintendo Wii and Microsoft Kinect) and 3-D gaming systems (Nintendo 3DS and PlayStation 3D) (NAEYC, 2012).

Leverage the connectivity and mobility of digital platforms for learning. Digital media are often blamed for displacing the time kids spend in face-to-face conversation. To address this concern, design activities that require family or group participation. It may take a little creativity to use digital platforms in ways that differ from manufacturer's intentions, but imagine the possibilities for engaging children in socializing, outdoor exercise, imaginative play, and academic pursuits—the very activities that parents and teachers fear digital media are supplanting from children's lives. Mobile devices can enhance networked play by allowing kids to take the hardware outside, and from home to school to library, to extend learning experiences, no matter the location.

Foster digital literacy in children and their parents. Both groups need to know how to manage their consumption habits and critically evaluate media content. Adults, after all, are just as enamored of their devices as kids are. But parents may also be unaware of how their actions as purchasers, role models, playmates, and monitors influence what their children do with media. Educators can encourage parents to think twice about switching the TV on at dinnertime to keep a child occupied while they tackle a few more work e-mails, and the implications decisions like these can have for children's social and oral literacy skills and general value system. Parents should realize that how they furnish the rooms in the home with books, TV sets, video-game consoles, and other devices will influence where, when, and how much media their children consume, as well as opportunities for media-free downtime. And for parents who have no choice but to use media to babysit on occasion, they should know that some sitters are better for kids than others, and often just as affordable. Public television, for example, offers free content in the form of video, websites, and mobile apps. Finally, in many homes today, family TV hour may be a thing of the past, but perhaps the mere knowledge that kids learn more with media when adults use media with them—whether “educational” or not—may inspire more parents to make the time.

THE ACCOMMODATION MODEL

Julia R. Henly

Exosystems refer to those contexts that are external to children but nevertheless influence their everyday lives, such as parents' workplaces and social networks. According to psychologist Urie Bronfenbrenner, "The psychological development of children in the family is affected not only by what happens in the other environments in which children spend their time but also by what occurs in the other settings in which their parents live their lives" (1986, p.723). This chapter introduces the **accommodation model**, which was developed to improve understanding of factors that shape parental decision making around children's care arrangements, with particular attention to understanding inequities in experience across families. The accommodation model emphasizes that the decisions parents make regarding their children's care are shaped in significant measure by the social and institutional contexts in which parents operate and to which children themselves may have only limited direct exposure. Parents' workplaces and social networks are two important exosystems for understanding child care experiences. Through the lens of the accommodation model, this chapter provides an extended discussion of the employment context and its relevance to understanding family life and child care.

The Accommodation Model of Parental Child Care Decision Making

The accommodation model provides an interdisciplinary lens through which to understand the caregiving decisions of working parents.¹ The accommodation model posits that

- the caregiving needs of working parents are complex and multifaceted;
- parental preferences about care are conditional and dynamic, influenced by factors such as children's developmental needs, previous experiences with care, and family and community norms;
- caregiving decisions are inextricably linked to other decisions, such as employment decisions; and
- linked decisions should be analyzed jointly, taking into account the possibility that competing goals can introduce decision dilemmas.

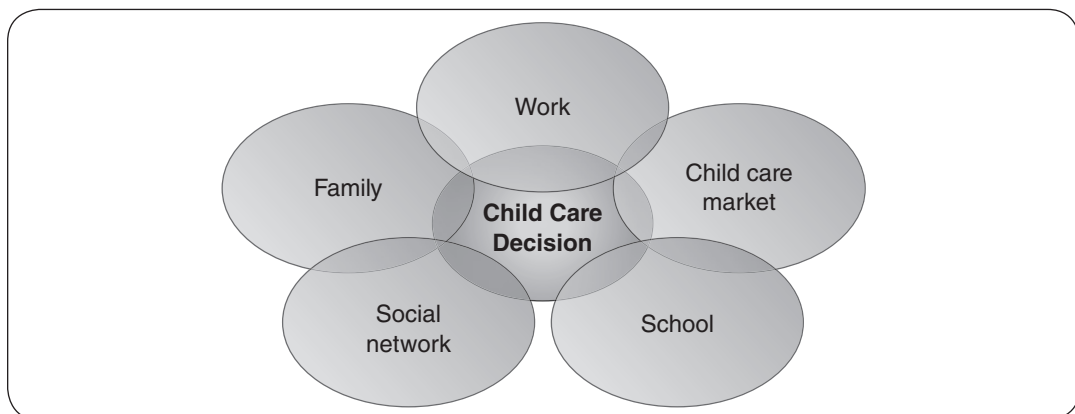
A central tenet of the accommodation model is that parental decisions about care are shaped by the resources and constraints found within the varied social and institutional contexts in which parents interact. While parents bring their own knowledge and preferences to the table, their actions are defined by contextual considerations, such as schedule demands imposed by workplaces, schools, and families; income earned and benefits provided by jobs; and the particular type, availability, and cost of child care in the local community. Figure 5.1 shows that to understand children's care experiences it is necessary to understand the contexts in which parents operate. These overlapping contexts help explain the extent to which child care arrangements can be understood either as expressions of parental preferences or

as “accommodations to market, family, and social realities” (Meyers & Jordan, 2006, p. 64). Often there is a disconnect between parents’ expressed preferences regarding ideal child care arrangements and the arrangements they actually use, in large part because of pressures that emanate from social contexts such as the workplace (Henly & Lambert, 2005; Sandstrom & Chaudry, 2012).

Another key tenet of the accommodation model is its emphasis on social processes and the ways in which social relationships shape parental care decisions. Social relationships are understood as important sources of information about child care options available in the community. Research demonstrates that most parents learn about their child care providers through word-of-mouth (Kontos, Howes, Shinn, & Galinsky, 1995; Pungello & Kurtz-Costes, 1999), rather than through advertisements, child care referral systems, or state quality ratings systems. Moreover, social network members offer tangible assistance to families, often helping parents with the child care application process and giving children rides to and from care settings (Henly, 2002). Perhaps most importantly, social network members are frequently providers of care themselves. Indeed, the majority of child care is provided by the informal sector, especially family, friend, and neighbor caregivers (U.S. Census Bureau, 2010).

Finally, drawing from behavioral decision models in cognitive science, the accommodation perspective argues that the child care decision itself is subject to the perceptions of the parents seeking care. Parents are characterized as *heuristic* decision makers (e.g., Thaler & Sunstein, 2008; Tversky & Kahneman, 1974), who must rely on simplifying strategies—or cognitive shortcuts—to make sense of a complicated child care market with which they are likely unfamiliar, and where good information about the outcome of alternative decisions is challenging to obtain, especially given time, resource, and contextual constraints. Rather than objectively weighing the pluses and minuses of a full range of care alternatives, parents may “go with what they know” (decisions heavily

FIGURE 5.1 Child Care Decisions Are Accommodations to the Opportunities and Constraints Represented by Multiple Social and Institutional Contexts, Such as Those Illustrated in This Diagram



influenced by cultural norms and social network interactions) and with “what works,” owing to the various demands imposed by the limitations of employment and the demands of other important social circumstances (Henly, Ros, & Rolen, 2012). Accordingly, parents seeking care make “good enough” decisions in order to accommodate the multiple, competing demands of an often complicated and resource-deprived environment and time-constrained search process.

Precarious Employment Contexts: A Critical Exosystemic Influence on Children

Over the last 40 years, macroeconomic changes such as declining unionization, the exportation of jobs outside of large urban centers, shifts from manufacturing to service, increased globalization of production, and lax government labor standards have resulted in declining earnings for low- and medium-skilled workers and a growing precariousness of employment for most of the U.S. workforce (Applebaum, Bernhardt, & Murnane, 2003; Kalleberg, 2011). Workers paid by the hour—the majority of the U.S. workforce—face particularly precarious and economically unstable work situations and few formal workplace benefits (Lambert, Haley-Lock, & Henly, 2012).

The standard work week has given way to a “24/7” economy in which two-fifths of Americans now work the majority of their hours during nonstandard times (early morning, evening, weekend, or overnight shifts); part-time employment has increased and only 29% of Americans work a 9-to-5, full-time, Monday through Friday job (Presser, 2003). Nonstandard work schedules are sometimes sought by employees, especially by dual-earner couples, who may prefer nonoverlapping work times as a way of minimizing the nonparental care of children. Nevertheless, nonstandard schedules are often a job requirement, and the majority of low-skilled, unmarried mothers who work nonstandard schedules report doing so because of job-related rather than caregiving reasons (Presser, 2003; Presser & Cox, 1997).

A growing number of employers seek a flexible labor force in order to more easily pursue business strategies that minimize labor costs (Applebaum et al., 2003; Haley-Lock, 2011; Lambert, 2008). For example, employers have increasingly adopted scheduling practices for workers paid by the hour that tightly link labor costs to demand for services and products, effectively shifting business risks onto workers (Lambert, 2008; Lambert et al., 2012). As a result, work in jobs paid by the hour is increasingly characterized by schedule unpredictability, variability in the number and timing of work hours, and limited employee control over work schedules (Carré, Tilly, Van Klaveren, & Voss-Dahm, 2010; Henly, Shaefer, & Waxman, 2006; Lambert, 2008; McCrate, 2012). A comparative case study of businesses across financial, retail, transportation, and hospitality industries found that low-level hourly workers routinely work variable schedules and fluctuating work hours, and typically receive notice of one week or less about the following week’s work schedule, with frequent, last-minute schedule adjustments by management (Henly et al., 2006; Lambert, 2008; Lambert & Henly, 2012). In this environment, workers’ ability to manage a wide range of shifts at a moment’s notice has become a highly desirable job qualification for employers. Moreover, low-level jobs, especially part-time hourly positions, seldom provide formal work-family benefits such as

flextime or paid sick days that can provide a modicum of employee control over otherwise variable, unpredictable, and fluctuating work schedules (Lambert et al., 2012).

The Influence of Precarious Work Environments on Family Practices and Child Care

The increasing precariousness of work has shifted attention to the particular characteristics of the employment context that may negatively influence family life and child well-being. Jobs with low wages and few benefits, and work schedules that require nonstandard, unpredictable, or variable hours, can create both time-based and strain-based work-to-family conflict for employees and their families (Greenhaus & Beutell, 1985; Henly & Lambert, under review). *Time-based work-to-family conflict* occurs when the time demands of employment clash with the organization and routines of family life. *Strain-based work-to-family conflict* occurs when parents experience strain symptoms from work that are transferred to the family domain.

Over the last 25 years, evidence has accumulated that demonstrates a significant association between temporal work patterns—especially working at nonstandard times—and a varied set of outcomes. For example, although findings are somewhat mixed across studies, working during nonstandard times has been linked to negative health outcomes of workers (Tepas & Price, 2001), strained marital relationships (Presser, 2003; Staines & Pleck, 1983), negative parent-child relationships (Presser, 2003), disrupted parent-child activities, such as homework help (Heymann, 2000), and poor child behavioral and cognitive outcomes (Han, 2008; Joshi & Bogen, 2007). More recently, there is mounting evidence that unpredictable and variable hours, not only nonstandard hours, can contribute to employee stress, heighten work-to-family conflict, and shape family routines and practices in ways that may be detrimental to children (Henly & Lambert, under review; Henly & Lambert, 2005; Roy, Tubbs, & Burton, 2004; Scott, London, & Hurst, 2005).

However, in one qualitative study of low-income retail workers with nonstandard and precarious work schedules, Henly (2002) finds that mothers in her sample develop creative caregiving strategies as a means of asserting their parental role when they are not physically present. For instance, mothers working nonstandard hours may prepare meals or lay out clothes and bedtime stories in advance of a work shift; adopt very early or late dinner and bedtime routines in order to create spaces for “quality family time”; or maintain involvement with children from the workplace via telephone or text messaging with child care providers, neighbors or family members, or with children directly.

Nonstandard and precarious work schedules also have important implications for the specific child care arrangements that families depend on. More than 60% of all U.S. children under 5 years of age spend regular time in child care. The average family that incurs child care expenses pays \$171 per week, with the cost of organized center, preschool, and licensed child care homes being considerably more than informal family, friend, and neighbor care. Approximately 1.7 million low-income children benefit from some \$12 billion in federal and state government-subsidized child care assistance (Matthews, 2011). Yet subsidies reimburse care at substantially less than the market rate, and only about one in six eligible low-income families receives government child care assistance (Matthews,

2011). As a result, the economic burden of child care is inequitably distributed by socioeconomic status: Families in poverty with child care expenses spend 40% of their monthly incomes on child care, compared to 18.7% for families at 100–199% of poverty, and 9% for families at 200% of poverty or above.² Not surprisingly, low-income working families, and families whose wages fluctuate, face few affordable care options and often seek lower-cost providers and providers who do not require consistent payments, or in some cases accept payments in kind (Bromer & Henly, 2009; Henly & Lyons, 2000; Sandstrom & Chaudry, 2012). Thus, the earnings of low-wage jobs constrain parental child care options and likely affect the quality of children’s nonparental care environments.

Many employed parents find the process of securing nonparental care a daunting, complex, and unsatisfying task (Weber, 2011). The supply of high-quality, affordable care is limited, and good information about options is hard to come by (Chaudry et al., 2010; Weber, 2011). But the employment context of families in low-wage hourly jobs and in jobs with nonstandard and precarious work schedules especially restricts child care alternatives. Centers, preschools, and even most licensed family child care homes offer care primarily during daytime, weekday hours; as a result, parents who work nonstandard hours disproportionately use family, friend, and neighbor care and package together multiple care arrangements to meet variable schedule needs (Han, 2004; Henly & Lambert, 2005; Presser, 2003; Sandstrom & Chaudry, 2012; Scott et al., 2005). And while parents’ employment schedules can require them to scramble to set up a hodgepodge of arrangements, often at the last minute, to meet their precarious work responsibilities, children are the ones who directly experience these settings. Several qualitative studies highlight the tenuous nature, hectic organization, and suspect quality of many child care packages that are assembled to accommodate nonstandard hour, variable, and unpredictable work schedules (Chaudry, 2004; Henly & Lambert, 2005; Sandstrom & Chaudry, 2012; Scott et al., 2005).

Conclusion and Implications

Research demonstrates that high-quality care environments are important sources of social, cognitive, and emotional development for all children. The benefits of enriching early environments are especially powerful for children who live in highly disadvantaged circumstances (Duncan, Ludwig, & Magnuson, 2007; Heckman, 2006; Magnuson & Shager, 2010). Unfortunately, the work lives and family budgets of many parents prevent them from enrolling their children in the highest-quality settings; indeed, the majority of children are in arrangements assessed to be of mediocre quality, and low-earning families are disproportionately in the lowest-quality settings (Helburn, 1995; NICHD, 2000). Thus, although child care arrangements hold the potential to be an important source of growth and positive development for children, their promise is not currently realized by many.

Of the many factors that prevent children from participating in high-quality early learning environments, the employment context is a significant contributing influence. To ameliorate these conditions, educators can support families in the ways suggested below.

Actively engage with parents about their work circumstances. By learning about family work situations educators can better understand children’s out-of-school time and the influences

these environments may have on children's behavior and performance at school. This information can be used to encourage parents in their creative caregiving strategies as well as to provide children with additional activities or services through afterschool programs.

Recognize work-related pressures and the limited control many parents have over their work time. Because family engagement in children's learning is especially important among low-income families (see Dearing and Tang, this volume), educators can take account of work situations when scheduling parent conferences by designing participation in school-based activities and encouraging participation in children's homework.

Link parents to community-based child care resource and referral services and to child care assistance programs. Educators can coordinate with community agencies and afterschool programs to reduce the complexity of child care searches and to support parent enrollment in subsidized, quality care arrangements.

Notes

1. The accommodation model is an integrative model that is influenced by economic theories of consumer choice, sociological theories of networks, and psychological theories of behavioral decision making. The summary provided herein is taken largely from Meyers and Jordan (2006) and Chaudry, Henly, and Meyers (2010).

2. All statistics taken from U.S. Census Bureau, Survey of Income and Program Participation (SIPP) 2010 Data. *Who's minding the kids? Child care arrangements: Spring 2010, Detailed Tables*. Retrieved from <http://www.census.gov/hhes/childcare/data/sipp/2010/tables.html>.