

Parents' Social Uses of Mobile Phones in Public Places: The Case of Eateries in Two National Contexts

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Given the growing salience of mobile phones that impact various aspects of family life, this study examines how parents use mobile phones in public places and whether the typology of *structural* and *relational* media uses applies to these circumstances. This topic is explored through the case of eateries, selected for their popularity among families with young children. Adopting an ethnographic approach, we conducted unobtrusive observations of 125 families with young children 2 to 6 years of age in two national contexts: the United States and Israel. Our findings demonstrate that mobile phones were used by parents above and beyond their basic communicative functions. We identified six such uses: Structural uses include the digital "playpen," "bottle," and "pacifier"; whereas relational uses include the digital "bubble," "bond," and "stage." In contrast to the earlier typology, however, we found that, given the unique affordances of the mobile phone, the distinction between structural and relational uses is more blurred.

Keywords: mobile phone, social uses, parents, children, public places, observations

Studies grounded in the uses and gratifications theory suggest that individuals use media to fulfill certain needs (Katz, Blumler, & Gurevitch, 1973; Rubin, 1994). Although this theory was applied primarily to explain how individuals are guided by their own needs when making media choices, several recent studies claim that, in suggesting media for their children's use, parents might seek to fulfill not only the child's psychological and social needs but also their own parenting objectives. For example, parents might use media to keep their children occupied, regulate their behaviors and moods, or facilitate childcare such as

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feeding or putting to bed (Elias & Sulkin, 2019; Nabi & Krcmar, 2016). As such, media facilitate many parental tasks and play significant roles in family life (Lull, 1980).

The proliferation of digital devices in families' everyday lives provides an opportunity to examine these assumptions within a new technological context. Digital devices are used simultaneously for entertainment, communication, and education with possible positive and negative outcomes both at home as well as away from home. On one hand, parents may use these devices for education or for shared entertainment while spending time with their children, but on the other hand, excessive media use could reduce opportunities for children's development of self-restraint and mood management, limit awareness of novel learning opportunities, and disrupt parent-child bonding more generally (Elias, Lemish, Dalyot, & Floegel, 2020; McDaniel & Radesky, 2017; Radesky, Schumacher, & Zuckerman, 2015).

In light of our ongoing study, which examines how parents' and children's mobile device use in public places impacts their interactions (Elias et al., 2020; Lemish, Elias, & Floegel, 2019), we set out to examine the following questions: First, how parents use mobile devices in public places to fulfill their parenting needs, and second, whether the typology of *structural* and *relational* family media uses (Lull, 1980) could apply to these circumstances. If so, we were interested in finding out whether this typology should be modified to account for changing technologies and the context of use. Accordingly, we examined whether this theoretical approach to media use within family life should be revised in light of the growing salience of mobile digital devices that accompany parents and children virtually everywhere. Such a framework might allow us to account for an extension of home-based media habits in parallel with the emergence of new uses embedded in the specific needs of childrearing away from home and the affordances of mobile technologies.

Indeed, mobile phones' unique affordances—a key area of scholarly inquiry—are highly relevant for this framework as well. Mobile phones afford social action across various physical spaces while blurring the private and public domains of life. Mobile phones are characterized by their ubiquity around the world and their unique convergence of many media and digital platforms; they serve a rich array of social functions (Cohen, Lemish, & Schejter, 2008; Katz & Aakhus, 2002). In this regard, Schrock (2015) specifies the following four affordances: portability, availability, multimodality, and locatability. Except for the latter, which is less relevant for families with young children, the other affordances are at the heart of the present study, as the availability of a portable medium that combines multiple forms of media allows parents to maintain a transition from home and work to public spaces and blend their parental duties with social, leisure, and work-related activities.

Using public places, such as eateries, to study parental phone-related behaviors might be especially informative for several reasons. Firstly, unobtrusive observations, which are possible in eateries, allow the researchers to examine human behaviors in natural settings while the study participants do not censor themselves or modify their behaviors because of the researchers' presence. Secondly, public places may challenge parents, particularly of young children, when they must manage their children under the observing eyes of others. Finally, behaviors in public and private places are inherently related and impact each other, as familiar home-based parental routines might flow into public spaces and vice versa.

Media Uses in the Parenting Routine

One major contribution of early work focusing on the role of television in family life was the realization that the media serve many more functions than simply providing entertainment or information. According to Lull (1980), the social uses of television are highly diverse and may be generally divided into two groups—structural and relational—and applied to other media as well.

Structural uses relate to the use of the medium, such as using it as background noise or as a tool to regulate children's daily schedule. Recent studies on screen devices' role in the parenting of young children revealed other such uses aimed at facilitating various childrearing practices. Examples include using digital devices as accessible "babysitters" to occupy children while their parents engage in household chores or take care of siblings; as a "reward" to reinforce desired behaviors; or as an effective means to facilitate bed and meal times (e.g., Elias & Sulkin, 2017, 2019; Nabi & Krcmar, 2016). Likewise, studies among parents of toddlers and preschool children found a common practice of using digital devices as "pacifiers" when children are sick, restless, or bored (Bar Lev & Elias, 2020; Hiniker, Suh, Cao, & Kientz, 2016; Kabali et al., 2015). Furthermore, digital devices serve as a multifunctional "tool kit" aimed at facilitating various childcare procedures that might evoke children's resistance, such as cutting nails or potty training (Bar Lev & Elias, 2020, p. 44). These practices could be understood in light of the media sensory curation theory (Harrison, Couture, Wenhold, Vallina, & Moorman, 2019) suggesting that parents' media uses, while taking care of their children during family outings, might help young children cope with potentially overwhelming and challenging stimuli.

Relational uses of media refer to the role they play for families who wish to facilitate or avoid communication with each other. Thus, TV viewing can strengthen family relationships since shared viewing brings families together in laughter, suspense, and interest, as well as in physical expressions of togetherness (Elias & Lemish, 2008; Lemish, 1987; Lull, 1980). On the other hand, screen viewing can also help family members avoid undesirable interactions when it serves as a replacement for parent-child communication or when it offers relief from social pressure or fosters relaxation after a busy day (Lemish, 1982; Lull, 1980). Another relational use of mobile media can be found in Hiniker, Suh, Cao, and Kientz's (2016) study where parents of toddlers and preschool children reported that they allow their children to use mobile devices when they are exhausted and need time to chill out. Likewise, in their study of parental media uses, during the first two years of children's lives, Bar Lev and Elias (2020) emphasize that structural uses of media as "background," "babysitter," or "pacifier" impact relational uses as well since they inevitably reduce the quantity and quality of parent-child interactions.

As such, the previous studies not only highlight the many roles that media devices fulfill in parents' daily routines but also point to the possible long-term implications of parental media uses on young children's development and parent-child relationships. However, these studies were limited to the family home setting, while many media uses now take place everywhere given the high mobility of digital devices. Following Schrock's (2015) discussion of the affordances of the mobile phone, including its portability, availability, and multimediality, it becomes of great interest to explore whether—and with what modifications—the structural and relational uses of the mobile phone transfer outside of the domestic sphere. Parents might continue to use media with their children away from home or even use them more

intensely in situations that are stressful for children or that may evoke an unpleasant "scene" that could embarrass parents in public. Hence, the question of how parents employ mobile media in public places becomes especially crucial, as it might shed light on those parenting practices that are deeply integrated into family media habits regardless of the location where the parents and children spend time together.

Parental Media Uses in Public Places

Because Lull's typology of social uses of media was developed around the central role that television played within the home (Lull, 1980), it is intriguing to revisit this model in the context of mobile media's roles in public places. This can be particularly revealing given the unique affordances of mobile media discussed above. For example, do parents employ media to keep their children busy outside of the home as well, or do they use media to calm them down or encourage a particular behavior in public? Indeed, some preliminary findings show that when families are away from home, traveling, or in situations that require waiting, parents offer children their own mobile phones to keep them busy or calm them down (Hiniker et al., 2016; Kabali et al., 2015).

Such phone uses follow earlier studies on the role of media in public spaces (e.g., Krotz & Eastman, 1999; Lemish, 1982, 1985), which expanded as media became increasingly mobile (e.g., Cohen, Lemish, & Schejter, 2008; Katz & Aakhus, 2002). These studies suggest that intense use of mobile phones in public reinforces long-distance social ties at the expense of interpersonal communication taking place in the same physical space (Habuchi, 2005; Kobayashi & Boase, 2014). The sense of disconnection from the surrounding context that mobile phones provide was coined *tele-cocooning* (Habuchi, 2005), or a *bubble* (Bull, 2004). Furthermore, smartphones, which offer constant online accessibility, intensify the impact that their public use may exert on family life and parent-child interactions (e.g., Xie, Chen, Zhu, & He, 2019).

Indeed, recent studies that were based on observations in playgrounds and fast-food restaurants, shed light on the significance of parents' mobile phone use. First, these studies indicate that the majority of parents use mobile phones while they spend time with their young children in various public places, with usage rates ranging from 59% of the time they spent at the site (Hiniker et al., 2015) to 73% (Radesky et al., 2014) or even 76% (Mangan, Leavy, & Jancey, 2018). Moreover, parents tend to be less engaged with and less sensitive toward their children when they use their phones (Hiniker et al., 2015; Radesky et al., 2014; Vanden Abeele, Abels, & Hendrickson, 2020; Wolfers, Kitzmann, Sauer, & Sommer, 2020). In our larger study of which this article is a part, we found that parents' phone-related disengagement from their children was directly associated with several safety concerns, when parents did not notice the potential or actual risk to their child's safety and with emotional well-being concerns, when parents were inattentive to their child's needs and feelings (Elias et al., 2020; Lemish, Elias, & Floegel, 2019). On the other hand, mobile devices may strengthen social connections in both virtual and face-to-face contexts as well. Such connections include parent-child bonds when mobile phones offer opportunities for co-use and other forms of digital and physical interaction (Schrock, 2016).

The existing literature, however, has yet to provide a theoretical model for parents' use of mobile media in public places as it relates to their parenting practices. The present study aims to fill this gap in the case of various eateries (e.g., coffee shops, food courts, and sit-down restaurants), which we selected

because they are some of the most popular public establishments visited by parents with children in Western societies. Despite their routine nature, these family meals play an important role in children's socialization and facilitate family bonding (Fiese, Foley, & Spagnola, 2006; Larson, Branscomb, & Wiley, 2006; Ochs & Shohet, 2006). Over the past few years, however, using mobile devices during family meals, whether by parents or by children, has become more and more common, and such behaviors might impact the quantity and the quality of parent-child interactions (e.g., Elias et al., 2020; Radesky et al., 2014).

Furthermore, gender role expectations of childcare may be carrying over from the domestic sphere to public spaces, putting a heavier burden on mothers. The gendered nature of mobile phone use, demonstrated in an early study by Rakow and Navarro (1993) suggests that mothers carry their family lives with them via their phone use into the public world. Over a decade later, Lemish and Cohen (2005) found that, in practice, the mobile phone was used by men and women in similar ways; however, it was discussed by them in quite traditional gendered ways. Given that the mobile phone is ubiquitous in the lives of both men and women, though they may still differ in their sense of responsibility for attending to their children when in public, it is interesting to explore whether their mobile-related behaviors differ as well.

Finally, little is known about the cross-cultural aspects of this phenomenon since previous studies were conducted in a single national context. The present study is a novel attempt to identify parental structural and relational uses of mobile devices in public places in two distinctive national contexts: the United States and Israel. These two countries are technologically advanced, and both display a high mobile media adoption rate among families (Elias & Sulkin, 2017; Rideout, 2013). Yet, the United States and Israel differ from one another in their family structure. The average number of children per Israeli family from 2011 to 2015 is 3.1 (Israeli Central Bureau of Statistics, 2020), as contrasted with 1.9 in the United States (Statista, 2019). Larger family sizes may impact parental styles and availability for each child at any given time, but during family's outings in particular. Accordingly, this study aims to ascertain the cross-cultural manifestations of parents' phone uses in public; to do so, we employ observations of families with children aged two to six years old in various eateries.

Method

This unobtrusive observational study systematically documented and analyzed the natural behaviors of children and parents in eateries, while emphasizing the context of the interaction. This is part of a larger research project on the roles of mobile media in parent-child interactions in public places, which examines a host of additional issues (Elias et al., 2020; Lemish, Elias, & Floegel, 2019). Parents with children approximately two to six years of age were observed because the parents-children interactional quality and parents' emotional availability are majorly important for child development during the preschool period (Biringen, Derscheid, Vliegen, Closson, & Easterbrooks, 2014). Children were classified as two- to three-year-old toddlers (e.g., early language development, diapers, limited motor skills) and four- to six-year-old preschoolers and kindergartners (e.g., language fluency, stronger motor skills, no diapers). Caregivers were identified as parents by references such as "Mommy" and "Daddy."

Observations took place from summer 2018 to spring 2019 in various eateries popular among families with young children. For conducting the observations, in both Israel and the United States, we

chose areas characterized by a distinct socioeconomic status: middle to upper-middle class and middle to lower-middle class. In Israel, the locations were in predominantly Jewish populations, undifferentiated by ethnicity. In the United States, the neighborhoods were predominantly White but represented the typical racial diversity of the state of New Jersey, namely, around 40–50% Hispanic, Asian, and African American residents. In total, we observed 67 families (89 parents and 77 children) in 38 observation sessions in Israel and 65 families (98 parents and 83 children) in 30 observation sessions in the United States.

Observations followed families from the minute they entered the eatery to the minute they left and lasted an average of 30 minutes per family in the United States and 31 minutes per family in Israel. In each country, two research assistants conducted the observations according to a similar protocol developed by both researchers. Observational notes included a reference to the physical space, the family composition, and observable demographics, parents' and children's phone use, parents' emotional availability toward their children, and parent-child interactional quality. To complement our qualitative data, we also counted how many parents and children used the phone during the stay in the eatery and calculated the frequency of each use suggested by our theoretical model.

The study was approved by the IRB of Ben-Gurion and Rutgers Universities, following in-depth considerations of the ethics of conducting an observational study without participants' awareness. We did not collect any identifiable information, and all behaviors documented were publicly observed by others at the site as well; thus, participants could not have had expectations for privacy. In so doing, our study is following the tradition of many observational studies of media-related behaviors in public, as cited above.

The detailed field notes were analyzed thematically, following conventional procedures of qualitative analysis through a process of repeated readings and distillation of categories of behavior (Lindlof & Taylor, 2019). Each family was analyzed holistically; we attempted to characterize the quality of interactions between parents and children as a whole, while also providing a detailed analysis of several meaningful interactional episodes, such as children's bids for help or attention, joint play or dialogue, argument or conflict, and parents' responses. The findings are organized around six major mobile phone uses that were found in families where a parent or a child used a smartphone during the meal.

The themes developed from independent analyses that each author and her research assistants conducted for the data collected in their respective national contexts. In the first stage, each team discussed their sites' findings until they reached a consensus. In the second stage, the two authors compared the themes each group arrived at independently, confirmed the significant agreements, and worked out nuances of differences through repeated readings and discussions. The finalized findings, presented below, include the themes that developed during data analysis. In the presentation of the results that follows, we integrate "exemplars" that are typical of a category of similar observations to substantiate our claims (Lindlof & Taylor, 2019, p. 349).

Results

The findings in both countries reveal a major presence of mobile devices during family meals in eateries. In Israel, 69% of parents and 37% of children used the phone during a family meal in the eateries. In the United States, 74% of parents and 24% of children used the phone as well. In total, only 16% of families in Israel and 11% in the United States did not demonstrate smartphone use by either parents or children. The analysis revealed six themes that we discuss in detail below. Based on Lull's (1980) typology of the social uses of television, we suggest a typology of the social uses of the mobile phone in public places. Thus, we distinguish between *structural* uses, which included "digital playpen," "digital pacifier," and "digital bottle"; and *relational* uses, which included "digital bubble," "digital bond," and "digital stage."

Structural Uses

According to Lull (1980), structural uses refer to the use of media as environmental resources and behavioral regulators, helping to structure the flow of behaviors in various settings (p. 201). We detected three such uses—"digital playpen," "digital pacifier," and "digital bottle." In all these uses, children's phone use was initiated by parents who primarily used devices as tools to facilitate and gratify diverse parenting needs.

Digital Playpen

The term "digital playpen" has been used previously in advertisements for actual digital playpens and in relation to gaming (e.g., Heaven, 2013, p. 19). Based on our data, we propose a different meaning for this term: Parents used smartphones as "playpens" to isolate their children and minimize the possible disruptions that children might create. Thus, the children were entertained by a smartphone for a prolonged period while being limited to the safe territory of the dining table and, at the same time, digitally isolated from their surroundings. Accordingly, they did not pay attention to what was happening around them and did not take part in their parents' conversations. When the children were occupied by various digital "toys" (e.g., gaming applications, drawing, and watching videos on YouTube), their parents were engaged in conversation or enjoyed a peaceful moment with a cup of coffee, as can be seen in the following example:

A mother entered the coffee shop with her preschool daughter and three female friends. For the next 22 minutes, while the mother and her friends were engaged in a lively conversation, the girl played with a drawing app while quietly eating her meal. The girl finished eating and it was clear that she was done drawing and painting. At first, the child tried to entertain herself by watching other diners, but she quickly became bored. To regain her mother's attention, she started singing loudly at the table. However, neither her mother nor any of the other women paused their conversation and turned to the child. The girl looked very disappointed, and she turned back to the smartphone and again started drawing and painting. Twelve minutes later, the four women decided to leave the coffee shop and the mother turned to her daughter for the first time and asked her to return the smartphone. (IL, July 2018)

It was apparent that the parents carefully designed their children's environment before offering them a device to ensure continuous and comfortable viewing, such as purchasing a spare bottle of soda that remained unopened while the phone was placed against it. The children, on their part, occasionally noticed that they had been isolated from their parents and tried to initiate interaction, but their efforts usually were not acknowledged:

At the café, a preschool daughter, mother, and grandfather shared a meal. The daughter finished eating before her mother and grandfather and she lied across the booth, then sat up and looked bored. The mother and grandfather conversed, and the mother gave her daughter her phone. At one point, the daughter looked up, seemed to notice the adults were still conversing, and then looked back down at the phone. She looked up again after finding something amusing on the phone; she laughed and tried to show the screen to her mother. However, her mother was still involved in the conversation and did not pay attention to her daughter. The daughter gave up and returned to the phone, which she looked at until the family left the eatery. (U.S., August 2018)

Although the "digital playpen" had implications for the lack of social interaction between parents and children, parents mainly used mobile phones to discourage their children's attempts to disturb them while they were engaged in their own activities, as well as to restrict children's movements and range of possible undesirable behaviors in public. This strategy may have been chosen for the children's safety as well as for the parents' peace of mind. Moreover, we noted a much higher percentage of occurrences of this use among families in Israel (25% of families) in comparison with the United States (11% of the families), which could partially be explained because Israeli parents were often accompanied by other adults and were seeking to engage in conversation with them. It thus seems that although the "playpen" mostly served structural functions for the U.S. parents, functions were mainly relational for the Israeli parents.

Digital Bottle

The "digital bottle" refers to using the mobile phone as an instrument that aids feeding, regardless of the type of "food" it contains (in this case, the content or activity on the phone). Using the smartphone as a "digital bottle" occurred in two common situations. First, parents of toddlers gave the child their phones to focus the child's attention on the screen, which allowed the parent (usually the mother) to feed him or her more efficiently or to encourage the child to take another bite. Second, eating in front of a screen was also observed in families with preschool children who ate independently while they were absorbed in a device. For example:

A mother and her toddler son were having breakfast at the coffee shop. When their food arrived, the mother immediately picked up her smartphone and carefully placed the device in front of her son. For the next 10 minutes, the child watched an episode from the children's program, looking utterly mesmerized by the screen, while his mother fed him and ate her own meal. (IL, August 2018)

Two fathers accompanied by toddler son, preschool daughter and an infant ate at a sit-down restaurant. When the food arrived, the father gingerly pushed the son's plate toward

him. The son shrieked because he was concerned that the food would disrupt whatever he was watching. The father said, "Okay, okay, you don't have to put it down," then carefully positioned the plate so the son could both watch content and eat. Meanwhile, the parents allowed the daughter to hold another phone with one hand while eating with the other. (U.S., May 2018)

When children were focused on screens, they paid little attention to their food, and they did not try to interact with their parents. Parents typically did not try to communicate with their children, either. This may be because parents did not want to interfere with feeding activities other than occasionally asking, "Are you full?" Using the mobile phone as a "digital bottle" looked similar in both countries and was found in 21% of the families in the Israeli sample and 18% of the families in the U.S. sample.

Digital Pacifier

The use of the phone as a "digital pacifier" was found in those cases when the device was employed by the parents to calm children down, and was similarly presented in both samples (10% of families in Israel and 9% in the United States). Usually, when the first signs of frustration or anger appeared, children were offered a phone to play with to restore peace and quiet. The smartphone was used in these situations much more frequently than other means of scaffolding or emotional support, such as talking to the children and finding out what was actually bothering them or simply hugging and comforting them. The following examples illustrate such situations:

A mother enjoyed breakfast with her preschool daughter and two female friends. During the first 15 minutes of their meal, the daughter ate her food and entertained herself by playing with her doll. The mother and her friends began conversing among themselves, and the girl seemed to feel excluded from their conversation. She began running around the other tables and even left the coffee shop. The mother left the table, ran after her child, and brought her back to the table. After apologizing to her friends, the mother took out her smartphone, choose an episode of a children's program, and handed the device to her daughter. Then the mother explained to her friends that when her daughter is bored and "acts out," the use of the device is the only way to calm her down. For the next 20 minutes, the girl watched the program and the women continued their conversation. (IL, March 2019)

After the mother talked for a few minutes on her phone, her preschool son started to squirm and cry. The mother hung up and then gave her son the device. He immediately smiled and started to play with the phone. She tried to hug her son while he used the phone, but he said "no," and pulled away. A teenage daughter then arrived with food and she and the mother ate and conversed, while the son kept using the phone. (U.S., July 2018)

Such observations suggest that the phone is used to manage the child's emotional state by providing an immediate and satisfactory outlet that is convenient for the parent and gratifying for the child. At the same time, however, it deprives the child of an opportunity to handle discomfort and develop internal

means of emotional regulation. This became salient when defaulting to the phone as a "pacifier" was the first strategy employed by the parent and not a "last resort" after other strategies had been exhausted.

Relational Uses

According to Lull (1980), relational uses create practical social arrangements such as facilitating communication, avoiding interaction, fostering social learning, and demonstrating competence (p. 202). Our data suggest that parents' use of mobile phones in eateries encompasses three types of relational uses: "digital bubble," "digital bond," and "digital stage." The "digital bubble" aims to avoid interaction with children, while the latter two potentially encourage it.

Digital Bubble

One of the most common phone uses found among parents in both countries was employing smartphones as "digital bubbles" (Bull, 2004, p. 275) meant to satisfy parents' own needs while they avoided communicating with their children. Furthermore, it was also the social use that had the greatest disparities between the two countries: In 52% of Israeli families, at least one parent was observed isolating him- or herself in a phone "bubble," while in the United States, this behavior was observed in 35% of families. In both countries, parents used their phones for reading and writing text messages, for various online activities, and for watching videos and TV series. "Mommy is on her phone" strongly echoes earlier media avoidance uses (Lull, 1980), signaling parental private time. When parents were absorbed by their smartphones, they did not have any significant contact (e.g., conversation, play, eye contact, or other forms of attention) with their children, as can be seen in the following examples:

After ordering, the mother joined her preschool daughter at the table. The girl immediately put her smartphone upside down, signaling to her mother that she wanted to converse. The mother, however, disregarded the daughter's signals and took her own smartphone from her bag and made a phone call. After three minutes, she ended the conversation and turned to check messages. Then the mother briefly disengaged from her smartphone and the girl tried again to initiate a conversation by asking to visit one of the stores in the mall. The mother nodded in agreement and returned to her smartphone. During the next four minutes, the mother watched a video on lasagna preparation without asking the girl to join her. At this point, the girl withdrew and turned to her smartphone. She did so without excitement and mechanically scrolled the screen while looking bored. (IL, June 2018)

The father ate his meal while typing and scrolling on his mobile phone. His preschool daughter put her corn dog down and sat with her arms crossed, staring at her father. He did not look at her and was still distracted by his phone. The daughter pouted and continued to stare at him. After about a minute, the father looked up and said, "What?" The daughter said, "Nothing," sounding annoyed. The father shrugged and turned back to his phone. (U.S., June 2018)

Although most children found ways to occupy themselves with toys or playing with food, sooner or later, they all turned to their parents to regain their attention. The parents, however, found it difficult to disconnect themselves from their smartphones. In some cases, they did not notice their children's attempts to interact, while on other occasions they responded with anger and hostility. For example, one mother yelled at her daughter, "I'll buy whatever you want. Don't you see I'm busy right now?" in response to the daughter's several requests to help her to choose a dish.

Digital Bond

In addition to the numerous cases of individual phone use discussed above, we also found several examples of meaningful and mutually satisfying parent-child digital interactions (10% of the families in Israel and 12% in the United States). During these "digital bonding" activities, mobile devices facilitated parent-child communication, such as singing along to a song found on YouTube or helping a child use various apps:

A mother, a father, and their preschool daughter and toddler son were having lunch at the restaurant. The parents appeared eager to converse without their children's interference and they handed each child a smartphone. For the next four minutes, while the younger boy watched an episode of a children's program, the older girl played a game. Then the girl came across a difficult stage of the game and asked her father to assist her in overcoming the challenge. At first, the father, who was engaged in conversation with his wife, ignored the girl's request. She persisted and reminded him that he promised to help her. As a result, the father disengaged from the conversation, and for the next seven minutes, he guided his daughter and actively participated with her in a car race. Every time the girl won a more difficult race, the father celebrated her achievements by hugging her and kissing her on her head. (IL, August 2018)

A mother and her preschool son walked into the café. The son looked down at a mobile phone; the mother tried to make him stop, but he refused, and he continued to look down at the phone. When the mother finished ordering, they sat, and the mother took her phone out. They talked and looked at their screens; the mother asked, "How do I do this?" The son turned his phone screen toward his mother, and they looked at the screen together. They appeared to play a digital game together until their food arrived, at which time they put their phones down and ate. (U.S., August 2018)

Additionally, one of the sit-down observation sites in the United States offered tablets on the dining tables. Three of the four families observed at this location chose to use the tablets as a shared parent-child activity (mostly for playing games) and seemed to enjoy doing so, although in two of the cases these games did not involve a second parent or siblings. Despite few families being observed on this site, this finding may indicate that the choice to engage in a shared digital activity could be a function of the device's features (i.e., small versus big screen), as well as the novelty associated with playing new games. Hence, once the device is provided by the eatery, it indeed might offer a partial solution to how to balance digital media use and parent-child interactions.

Digital Stage

In several families (13% in Israel and 9% in the United States), parents took pictures of their children or posed for selfies with them. In a way, this "digital stage" use can be seen as an attempt to document happy family moments, presumably to share with others via mobile communications and social media. Some children collaborated willingly, as the below example suggests:

A mother, a father, an aunt, and a toddler daughter ate at a sit-down restaurant. Once they had their food, the aunt, mother, and daughter started to dance in their chairs. The father ate and smiled at them, then the mother picked up her mobile phone, told everyone to smile, and took a video of the table. She stopped recording and showed the video to her husband. Then she put the phone down, did a dance move, and showed the video to her daughter. (U.S., May 2018)

However, another interactional pattern that developed from our findings involved parents taking selfie photos with their children despite the children's resistance. It was apparent that these children were reluctant to be featured in these photography sessions, but their expressions of annoyance, frustration, or embarrassment were disregarded by their parents, as can be seen in the following example:

For 12 minutes, a preschool boy played an imaginary game with his toy, while his parents were engaged with their smartphones. When the food arrived the mother asked him to pose for her smartphone while holding food in his hand. The child refused, reasoning that he wanted to eat, but the mother insisted, making funny faces to make him laugh while she was taking pictures of him. When the photo session ended, the mother immediately disengaged from her son to share the pictures, while he still stood confused in front of her. For the next six minutes, the child was left alone again while his parents looked down at their phones. The boy stood up and leaned on his mother, seeking her attention. She typed on her phone, and without looking at him pushed the child away. Suddenly, she received a message, smiled, turned to her son, and asked him to pose for selfies. She said, "Grandma wants more pictures of her handsome grandson having fun with his family." Over the next three minutes, the mother directed the child's poses and smiles while taking pictures. Immediately after, the mother rushed to send the photos to the grandmother, while the child was left once more on his own. (IL, July 2018)

This observation emphasizes the sharp contrast between the carefully crafted images of "family happiness" that were distributed to others or displayed on social media and the actual way these images were constructed. On one hand, parents made substantial efforts to stage the abundance of the family's meal, direct the photo sessions, choose the best photos, and share them on social media. On the other hand, they interacted with their children when they needed their cooperation but left them on their own the very moment the photo session successfully ended.

Discussion and Conclusions

Our findings demonstrate that mobile phones serve various social functions for parents above and beyond their basic communicative functions. Similar to television (Lull, 1980), mobile phones have both structural and relational uses for parents spending time with their young children in public places. We have identified six such uses: Structural uses aimed to manage childcare-related activities (e.g., feeding, maintaining safety, behavior regulation), including the digital "playpen," "bottle," and "pacifier"; and relational uses aimed at facilitating or avoiding communication, including the digital "bubble," "bond," and "stage." Given these findings, our analysis provides additional support for several recent developments of the uses and gratifications approach, suggesting that although parents offer media devices for their children's use, they might seek to fulfill not only the child's needs, but also their own childrearing and personal objectives (Elias & Sulkin, 2019; Nabi & Krcmar, 2016).

At the same time, we note that adopting Lull's (1980) typology, which initially applied to TV use in the home, to the use of mobile devices in public is not without its limitations. The affordances of the mobile phone as an individualistic medium (in comparison to the TV set placed in the family room) as well as its mobility and convergence of multiple platforms, complicate the typology on several levels. First, it is clear that the structural and relational functions often blur together. For example, while the "playpen" serves the structural need to keep the child safe and restricted in place, it also plays a major role in communication avoidance. While the "bubble" has a major communication-avoidance use, in practice, it also puts parents in an adult "playpen" that isolates them from their social environments and thus allows them to satisfy their own needs. As we noted above, Lull himself acknowledged that structural and relational uses are interrelated. These days, however, given the communicative nature of the mobile phone, the blurring of the two types of uses is significantly more pronounced.

Furthermore, in comparison to Lull's (1980) typology, this study's findings emphasize the importance of considering the cultural context of mobile phone use in discussions of phones' affordances (see, e.g., Schrock, 2015). Thus, the higher frequency of the "playpen" use in the Israeli sample could relate to Israel's different family leisure culture, which involves the presence of extended family members and friends during visits to eateries and thus requires parents to divert their attention from the child to the other adults present. Moreover, Israeli parents more often demonstrated the "digital bubble" behavior, which aligns with recent reports that point to Israelis' very high engagement with social media and instant messaging platforms (Bezeq, 2017). On the other hand, our findings also highlight the ubiquitous presence of mobile phones in parenting routines and could be applied to other societies with high adoption rates of mobile digital devices.

The mobile phone's various uses identified in this study may also have potentially negative consequences for parent-child relations and for children's development. In fact, most of the uses were associated with a reduced parent-child interaction or even a total lack of it. For example, when children were placed into a carefully designed digital "playpen," they were isolated from the social interactions around them. Although a "playpen" can be seen as parents' attempts to achieve children's sensory comfort while minimizing the potentially disturbing stimuli of a noisy environment (Harrison et al., 2019), this use might slow down the development of children's inner mechanisms of sensory regulation. Likewise, using the

smartphone for feeding or as a tool to distract a frustrated child comes at the expense of parent-child communication or comforting physical contact. Other unintended consequences of parental phone use may include missed opportunities for strengthening familial relationships and developing a child's emotional self-regulation, as well as adopting unhealthy eating habits in front of the screen (Coon, Goldberg, Rogers, & Tucker, 2001; Hersey & Jordan, 2007; Radesky et al., 2015).

Furthermore, while situating our findings on the social disconnection versus connection continuum in reference to mobile media uses in public space (e.g., Bull, 2004; Habuchi, 2005; Kobayashi & Boase, 2014), it is clear that the "bubble" and the "playpen" behaviors were much more frequent than the "bond." In this sense, in many families, we observed that parents and children were physically close to each other, but they were fully absorbed by their phones and inattentive to each other's attempts to communicate. Hence, the mobile phone, a communication tool per excellence, was found in our study to facilitate more intracommunication uses rather than interactional ones.

We should emphasize, however, that using mobile media within parenting routines should not be seen as entirely negative. Parents may use mobile phones as a "bottle" to facilitate eating in an environment unfamiliar to their child or as a "pacifier" to avoid a sudden disturbance that might subject families to others' judgmental gazes. What is crucial, however, is that a parent remains responsive to his or her child and does not rely exclusively on the device. For example, it is possible to calm the child with a song on YouTube while singing it at the same time; maintain verbal communication with the child while they are placed in the "playpen"; or engage the child in selecting their best photos to share with others. It seems, therefore, that it is not only "what" a parent does with the phone that might impact parent-child relationships but also "how" parents and children use phones that make a difference.

It is worth noting that we found only minor gender differences in mobile phone-related behaviors of parents. More mothers seemed to be actively maneuvering between their phones and their children. When both parents were present and in their phone's "bubble," however, we observed several mothers demonstrating divided attention between their phones and the child, and none of the fathers. This is much in line with gendered expectations of childcare responsibilities. However, we observed just as many mothers who were completely disengaged from their children as fathers. Overall, then, our findings reinforce the conclusion of Lemish and Cohen (2005) that mobile phone use mostly blurs gender differences.

Finally, our findings could be interpreted in light of the American Academy of Pediatrics' (2016) recommendations on screen media use. Although parents are advised to reduce their young children's screen time and replace it with parent-child interactional activities, we found that family time in the eateries is actually replaced by screen time, thus minimizing the potential positive effect of family outings. Though parents are aware of their children's extensive media use and even express screen-related concerns and anxieties (e.g., Livingstone & Blum-Ross, 2020), it seems that they are not attentive enough to their own media uses and the impact of these on their children. As such, these findings call family practitioners' attention to the potential negative impact of over-phone use during family meals in public as well as at home and require them to advocate for setting phones aside and engaging instead in quality parent-child interactions.

While unobtrusive observations offer some advantages, they also limit our ability to hear parents' own interpretations of their behaviors. Our ongoing exploration (cut unexpectedly by COVID-19) aims to fill these two gaps: to observe families' mobile phone use both at home and when they go out, and to provide parents with an opportunity to reflect on their observed media-related behaviors. Finally, we note that our study focused on parental phone-related behaviors, rather than on parental anxieties, hopes, and management of their children's media use (e.g., Livingstone & Blum-Ross, 2020), which has been one of the main concerns in both scholarship as well as public discourses of late modernity.

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