"The Only 13-Year-Old on Planet Earth Without a Cell Phone": Meanings of Cell Phones in Early Adolescents' Everyday Lives

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Blair, B. L., & Fletcher, A. C. (March 01, 2011). "The Only 13-Year-Old on Planet Earth Without a Cell Phone": Meanings of Cell Phones in Early Adolescents' Everyday Lives. *Journal of Adolescent Research, 26, 2.*)

Abstract

Cellular telephones have become an increasingly prevalent feature of contemporary American life, with usage often beginning during early adolescence. With this in mind, twenty 7th graders and their mothers participated in separate qualitative interviews regarding early adolescents' use of cell phones as well as perceived risks and benefits of such use. Analyses indicated that early adolescents and their mothers imbued cell phones with a variety of psychological meanings. These meanings included cell phones as a source of connection to family and friends, cell phones as facilitators of adolescent autonomy development, and cell phones as sources of social status. These findings are discussed in relation to psychosocial developmental tasks occurring in early adolescence.

Keywords

cellular phones, adolescent development, parental monitoring, peer relations, parent-child relations, autonomy

Article:

Cellular telephones (cell phones) have become firmly entrenched within contemporary American society as a critical medium through which interpersonal connectedness is maintained. Increasingly large percentages of adolescents own or have access to cell phones and use this technology to remain in contact with friends and family members alike. Estimates of cell phone ownership can vary fairly dramatically, but recent surveys show that 75% of all Americans own cell phones (Horrigan, 2008), and 52% of American early adolescents own cell phones (Lenhart, 2009). Ownership is just one indicator of cell phones' pervasive presence in American society, another is the use of cell phones in everyday life. Weisskirch (2008) found that in a sample of

196 American parent-adolescent dyads, adolescents made and received an average of 18 calls per day, and their parents made and received an average of 16 calls per day. Despite the prevalence of cell phone ownership and usage among American adolescents, little is known about the manner in which adolescents and their parents think about this technology. The current study uses qualitative data from early adolescents and their mothers to identify the psychological meanings that cell phones hold for the adolescents who use them, or desire them, and the mothers of such adolescents.

Cell Phone Usage During Adolescence

Initial research on adolescents' use of cell phones has focused on identifying percentages of adolescents who own or have access to this technology (Lenhart, 2009), the frequency with which it is used (Weisskirch, 2008), and identification of classes of individuals with whom adolescents stay in contact via cell phones (Aoki & Downes, 2003). Although adolescents use cell phones to engage in a variety of types of social interactions (Aoki & Downes, 2003), parents appear to be the primary class of individuals with whom adolescents interact via cell phone. Parents are typically the financial backers of cell phone ownership among adolescents, and they are the recipients and initiators of many of their children's cell phone calls (Charlton, Panting, & Hannan, 2002). Weisskirch (2008) found that, on average, adolescents and their parents speak with each other via cell phone four times each day. Most of such cell phone calls involve what Ling (2000) termed microcoordination, in which adolescents and their parents communicated via cell phones to work out logistical concerns, such as when adolescents should be home, when and where parents would pick up adolescents, and so on.

In contrast, very little is known about the roles of cell phones within the context of adolescents' peer relationships. Given the amount of time adolescents spend in the company of peers and thinking about peers (Richards, Crowe, Larson, & Swarr, 1998), it stands to reason that many of adolescents' cell phone contacts would be with their peers. Indeed, adolescents with cell phones report that they call their friends more often than do adolescents with landline telephones only (Lenhart, Madden, & Hitlin, 2005). Forty-five percent of a sample of British early adolescents listed parents as the most frequent recipients of their cell phone calls, but 33% listed friends as the most frequently contacted (Charlton et al., 2002). Cell phones allow for nearly constant and immediate connection to the peer group. Adolescents can psychologically escape a given setting, such as school or family dinners, by reaching for the cell phone to call or text a friend (Ling & Yttri, 2006). This certainly has the potential to influence both peer relationships as well as family relationships, although such processes have yet to be examined.

The Meaning of Cell Phones to Adolescent Users

Moving beyond attempts to identify the conversational partners of adolescent cell phone users and the nature of communications using cell phones, a small body of research has focused on the various meanings that cell phones may take on within adolescents' lives. This line of inquiry has

focused almost exclusively on the form of such meanings within the context of parentadolescent cell phone communication. For example, within microcoordination communications, Williams and Williams (2005) found that cell phones provided a context within which a complex process of parent-adolescent negotiation took place. When adolescents carried cell phones, parents allowed more flexibility in curfews and boundaries. On the surface, this suggests that cell phone ownership facilitated higher levels of adolescent autonomy; however, Williams and Williams found that parents' feelings of comfort with setting flexible limits for their adolescents were because cell phones provided immediate and direct access to adolescents while they were out. Thus, hard and fast rules were exchanged for potential parental intrusion into adolescents' lives at any place and time. This tension has implications for the meanings adolescents may associate with cell phones in that this technology may be viewed simultaneously by adolescents as both a source of freedom and an instrument of control.

Parents' opportunities for gaining knowledge about their adolescents are increased when adolescents own cell phones (Campbell, 2006). However, just because the opportunity exists does not mean that parents will benefit from it. For instance, cell phones are only effective in increasing parental knowledge when calls are initiated by the adolescents, rather than parents. In fact, frequent cell phone calls from parents to their adolescents are associated with lower levels of parental knowledge and higher levels of parent-reported family disharmony (Weisskirch, 2008). Cell phones appear to represent an alternative mode of communication that fits into preexisting parent-adolescent relationships. This suggests that cell phones may take on symbolic functions that are specific to the relationships in which they are used. In parent-adolescent relationships characterized by open, warm communication, cell phones may function to support and extend such relationships and serve as symbols of security and connection. In contrast, cell phones may function as symbols of parental intrusion when parent-adolescent relationships are characterized by tension or hostility.

Cell phones potentially serve an important role in supporting adolescents in balancing needs for autonomy with needs for connection with and support from parents (Ling, 2008). Cell phones serve as a tangible link to parents as adolescents negotiate their transitions into increasingly adult activities and relationships (Ling & Yttri, 2006). Campbell (2006) referred to cell phones as surrogate parents in that they serve as a constant reminder that parents can be reached or can reach out to adolescents at any time, even when adolescents are out with friends. This function of cell phones may be especially salient for early adolescents who are first starting to venture into contexts and activities outside of the direct supervision of adults. The lack of direct adult supervision could be anxiety provoking for early adolescents, and cell phones may potentially alleviate this anxiety by symbolizing a constant connection to parents. As Ling (2008) noted, cell phones increase adolescents' autonomy while simultaneously increasing relational ties. Thus, they could serve to expedite two important psychosocial tasks of early adolescence: social connection and autonomy.

In the past decade, the prevalence and functionality of cell phones have evolved to a point where they are now considered necessary by 49% of Americans (Morin & Taylor, 2009). Still, the status associated with cell phones has not dissipated. Possessions frequently take on psychological meaning as objects of self-expression and individuality, and the potential for this phenomenon is increased when individuals feel that others are observing them (Prentice, 1987)—a state that is highly prevalent in adolescence (Rankin, Lane, Gibbons, & Gerrard, 2004). Thus, it is not surprising that the social status associated with cell phones remains a driving force behind adolescents' desire to obtain a cell phone (Ling, 2000) with status calculated by the type of cell phone owned, the size of an individuals' address book, or the number of calls received (Ling, 2008).

The Current Study

Considering the prevalence and importance of cell phones within the lives of adolescents, we suggest that it is important to consider the meanings they hold for adolescents. Yet developmental researchers have been slow in their efforts to design research inquiries that focus on the relevance of new technologies in individuals' lives, thus creating a gap in our understanding of modern relating and relationships (Duck, 2008). We sought to fill this gap by analyzing qualitative data gathered from early adolescents and their mothers that described the ways in which cell phones were present within early adolescents' lives and participants' thinking about the role of this technology during this developmental period.

Mothers were chosen as the parental focus of this study because mothers are more likely than fathers to be responsible for the daily care and supervision of their children (Helms & Demo, 2005), including the monitoring of children's leisure activities, such as media use. For instance, mother are typically responsible for rules and restrictions regarding children's television viewing. Although maternal responsibility has not been explored in relation to adolescent cell phone use, we believe that previous findings are applicable and therefore examining mothers is appropriate.

Early adolescence is a time of transition in regards to technology use (Lenhart, 2009), peer connections (Berndt, 2004), and autonomy from parents (Steinberg, 2001). As a result, we expect that cell phones will be particularly salient in early adolescence because they represent a novel source of both peer connections and autonomy. Therefore, we chose early adolescence as the focus of this study.

Three broad questions directed our analysis: (a) What meanings do early adolescents give to the use and ownership of cell phones? (b) What meanings do mothers give to their early adolescents' cell phone use and ownership? (c) In what ways do these meanings take shape in early adolescents and their mothers' utilization of cell phones, decisions concerning whether to purchase cell phones for early adolescents, and maternal involvement in early adolescents' cell phone use and ownership?

Method

Participants

Participants were drawn from a larger, mixed methods project that examined maternal involvement in early adolescents' children's friendships. The larger project followed 404 children and their mothers beginning in the third grade. A subset of 20 mother-child dyads was selected from the larger sample to participate in additional, qualitative interviews. The qualitative sample was selected to equally represent boys and girls as well as equal numbers of African American and European American dyads. Thus, participants included 10 boys and their mothers and 10 girls and their mothers and 10 European American dyads and 10 African American dyads. One mother did not complete the portion of the qualitative interview used in the current study and thus was dropped from further analyses; however, the child in this dyad was retained. The interviews used in this study were conducted when children were in seventh grade.

Family social class was assessed according to Hollingshead (1975) classifications, with three families classified as upper class, eight upper middle class, six middle class, and three lower class. Dyads represented a variety of family structures, including 13 early adolescents residing with their biological mothers and fathers, 3 with single mothers, and 4 with their mothers and another adult (e.g., a stepfather, mothers' boyfriend, or grandmother). All participants were given pseudonyms for the purposes of this article.

Procedure

Interviews were conducted during the adolescents' seventh-grade year in families' homes by a matched-ethnicity graduate student interviewer and an undergraduate research assistant. One research assistant in each interviewing pair was always female. Mothers and early adolescents were interviewed separately and were asked to respond to a series of questions focused on early adolescents' access to and use of cellular telephones as well as their feelings regarding potential risks and benefits associated with the use of this technology. Responses were probed to elicit examples, details, or elaborations building on initial responses. Mothers received US$50 for participating in interviews and early adolescents received US$10 gift cards to a local store.

Questions in this portion of the interview explored participants' experiences with and emotions and beliefs about cell phones in early adolescents' lives. Early adolescents and their mothers were asked whether adolescents owned cell phones and then were probed as to the reasons for and circumstances surrounding ownership. In cases in which early adolescents currently owned cell phones or had owned one in the past, participants were asked about the ways in which cell phones were used, including who adolescents called, where the telephone was carried, and what rules were established for its use. All participants, regardless of cell phone ownership status, were asked to discuss their feelings and beliefs regarding the risks and benefits of cell phone use in early adolescence.

Data Analysis

An axial coding strategy was implemented such that we began with repeated readings of all 40 interviews, for the purpose of gaining a broad sense of how early adolescents and their mothers' perceived cell phone use and ownership. Throughout these readings, memos were used to capture authors' impressions of the data and to begin formulating themes. After discussions of our impressions, we began developing codes that focused on the meaning and symbolism of cell phones to early adolescents and to mothers. These codes were refined and additional codes added through an iterative process that involved multiple readings of transcripts by both authors and discussions regarding transcript and code content.

When a comprehensive list of codes was agreed upon, each author independently applied it to a subsample of the transcripts. During independent coding, the authors again used memoing, this time for the purposes of clarifying the definitions of codes. After initial coding was completed, all coding decisions were compared and discussed. Through this process, potential problems with the coding scheme were discovered and addressed. Finally, the revised coding scheme was applied to the full set of transcripts with coding conducted by both authors. Memoing continued at this stage as authors began to consider the relationships between codes and how these relationships might differ for subgroups within the sample (i.e., mothers compared to early adolescents and those who owned cell phones compared to those who did not). Following independent coding, comparisons across coders revealed a high degree of reliability. All discrepancies were discussed and resolved through consensus.

Atlas.ti software was employed to manage the data and was also used in the next step of analysis: data organization. Data were grouped by code and then sorted by ethnicity, social class, child gender, dyad member, and whether the child owned a cell phone. The sorted codes were then examined for patterns. Finally, using a cross-case analysis approach (case-oriented and variable-oriented), grouped sections of code were analyzed to capture emerging themes as they related to parent and child reflections regarding early adolescents' cell phone use (Miles & Huberman, 1994). All analytic procedures and evolving interpretations were documented.

Results

In this sample of 20 seventh graders, 6 owned their own cell phones, 4 did not own one currently but had in the past, and 10 had never owned their own cell phone. Of the 10 early adolescents who did not own a cell phone, 5 reported having at least occasional access to a parent's cell phone. The percentage of early adolescents owning cell phones within this sample was consistent with rates reported in prior studies (45%; Lenhart et al., 2005). However, all participants reflected in an elaborated manner on issues related to the meaning of adolescent cell phone ownership and use. In families in which early adolescents did not own cell phones, such reflections took the form of discussion of early adolescents' desires to own cell phones, reasons that such ownership was or was not perceived as necessary, beliefs regarding the value of cell

phones, and recounting of stories of friends' and family members' experiences with adolescent cell phone use.

Through the data analysis process, three themes emerged: (a) cell phones facilitating interpersonal connections, (b) cell phones promoting adolescent autonomy, and (c) cell phones as a status symbol. Subcategories were then developed to further distinguish the meanings by which these four symbolic functions of cell phones took shape in early adolescents' and mothers' thoughts and behaviors. We also conducted simple frequency counts to determine whether the prevalence of themes and subcategories varied by key demographic characteristics, including gender, ethnicity, and social class. In addition, we examined the data for differences between those dyads in which early adolescents owned cell phones and those in which adolescents did not. Few differences were observed on any of these characteristics. Therefore, unless otherwise stated, we present our findings with reference to our sample in general.

Cell Phones Facilitating Interpersonal Connections

Cell phones are primarily used as a communication tool, so it is not surprising that both early adolescents and their mothers emphasized cell phones' roles in connecting early adolescents to the important people in their lives. Early adolescents and their mothers spoke of the connections that cell phones facilitated in early adolescents' lives in terms of friends and family.

Connections to Friends. Cell phones as a symbol of early adolescents' connection to their friends took three forms: (a) enhanced closeness to friends, (b) increased ease of organizing activities, and (c) problematic uses.

Closeness to friends. Eighty percent of the early adolescents in this study suggested that talking to friends was one of the primary uses for cell phones. When asked how cell phones could help in their friendships, early adolescents emphasized the ability to talk to their friends at any time, including when they were out of the house, when the house phone was being used, or even in class. For instance, Steven was enthusiastic about his cell phone because "Usually [my friends] can only call me at home, but now they can reach me on my cell" (African American boy). In contrast, Dimere (African American boy) was frustrated about not owning a cell phone because "I can't call none of my friends if I was out somewhere." Cell phones gave the early adolescents opportunities to talk to peers in virtually any setting, including school. "I text message my friends sometimes, like in school and stuff I'll do it, 'cause I'm not gonna, like, call them or anything" (Marissa, European American girl). The early adolescents in this sample indicated that owning a cell phone resulted in increased time spent communicating with friends, something they felt was highly desirable.

Mothers also recognized that cell phones were important to early adolescents as a means of enhancing closeness to friends. "It's good for them to talk on cell phones to their friends" (Ophelia, African American mother). Several mothers indicated that they had actively encouraged and facilitated the use of cell phones in their adolescents' relationships with peers.

Tamika explained, "If we go out shopping together and he want to talk to Chloe on the phone, I'll let him use my cell phone to talk to her since we be gone from home a couple hours or something" (African American mother). In general, though, the ability of cell phones to increase early adolescents' closeness to friends did not hold the same significance for mothers that it did for early adolescents. Far fewer mothers mentioned this aspect of cell phone usage than did early adolescents. Some mothers expressed their belief that although cell phones could be useful in facilitating closeness with friends, their daughters and sons needed no additional help in this department. Carol was certain that if her daughter, Carollee, had a cell phone it would be superfluous because even with the home phone "She'll call . . . anybody, everybody, and anybody. The whole school if you let her, whole school" (African American mother).

Organizing activities with friends. Another way that the early adolescents saw cell phones as a tool that supported their connections to friends was through increased ease of organizing activities with friends. Early adolescents described situations in which having a cell phone allowed for the coordination of activities that might not have been possible otherwise. "I went to the mall and I called them, 'come up to the mall,' and they came" (Dimere, African American boy). Participants also explained that cell phones allowed them to obtain more information about activities, which was beneficial for them when making decisions about whether they would participate in these activities. Cory (European American boy) explained that if he owned his own cell phone it would make it easier for him to make decisions about which activities he would attend because he could call friends and "ask them if they're going to a party or something."

Cell phones were also beneficial to early adolescents' activities with peers because they made logistic communications with parents easier. Cell phones allowed parents to convey logistical information to their early adolescents when adolescents were out with friends, such as with Marissa, "They'll call me and, like, tell me to be ready at a certain time" (European American girl). This type of communication was also initiated by the early adolescents. Daija (African American girl) explained, "When I, like, stay after school . . . I can just call them and tell them what time to come pick me up." For Latiesha (African American girl), one of the primary uses for her cell phones was communicating with her mother about the logistics of her plans with friends. "Like if she's late for picking me up somewhere, or just calling her to remind her to pick me up, or telling her about plans to go somewhere."

Problematic uses. Mothers and early adolescents recognized that although adolescents' connections to friends were primarily positive, cell phones could also lead to behaviors and connections that were problematic. Of chief concern was the possibility for distraction from school. When asked about potential risks of cell phone use for youth her age, Larina responded, "Getting too involved in telephones and letting other stuff—other priorities—go" (African American mother). Daija (African American girl) explained that after she got her cell phone, "my grades started dropping," resulting in a loss of cell phone privileges for a time.

In addition, a concern was expressed by several mothers that cell phones could increase the potential for undesirable communications with peers. "With girls it's just one more avenue for them to get together and gossip and talk about people. That just breeds all kinds of problems, and it's just one more thing" (Amber, European American mother). Jane (European American mother) laughingly explained that one potential risk of her son owning a cell phone would be "talking too much, for no particular reason, making silly phone calls. 'Cause I can see him doing that, definitely."

Other mothers communicated concerns that cell phones could open the door to unsupervised communications with peers of the opposite sex. For instance, Sarah (African American mother) expressed concern that if her son had a cell phone, then "little girls be wantin' to call." Similarly, Roberta (European American mother) was fairly certain there were no risks to her son having a call phone, but "let a girl come in the picture, then we'll see." For a few mothers, this concern led them to specifically monitor their early adolescents' cell phone use for communications with the opposite sex. Laura (African American mother) indicated that when she checked her daughters' call history, one thing she was particularly looking for was whether any boys had called her daughter.

Connections to Family. In addition to connections with friends, some participants recognized cell phones' potential for facilitating family connections. For example, one adolescent noted that his new cell phone might increase his ability to maintain contact with his nonresidential father, "'Cause I might be going somewhere and he only knows the house phone, so now he can call me on my cell phone" (Steven, African American boy). When asked who he expected he would call when he owned a cell phone, Cory (European American boy) listed, "My mom, my dad, my grandpa, and my grandma." Laura, an African American mother, commented on her adolescent children's tendency to use cell phones not just to arrange transportation but also to maintain connection with her, "Even if they out, they just call and say, 'Hey, Mama, what you doin'?'"

Cell Phones Promoting Adolescent Autonomy

Early adolescents and their mothers were nearly unanimous in their beliefs that owning a cell phone had the capacity to increase early adolescents' autonomy. This belief was expressed in four forms: owning a cell phone (a) was equivalent to a rite of passage, (b) required a certain level of responsibility, (c) resulted in independence from other phones, and (d) shaped parental authority.

Rite of Passage. The belief that cell phones ownership represented a rite of passage was expressed by both early adolescents and mothers but only when early adolescents did not yet own cell phones. When early adolescents already owned a cell phone, neither mothers nor early adolescents mentioned cell phones as a rite of passage. However, for early adolescents who did not own a cell phone, participants spoke of waiting for a significant event in adolescence before purchasing one. In many cases, this event was the advent of driving. "My parents don't really

think I need one right now until I can drive" (Ashley, European American girl). Sarah (African American mother) had a similar tactic with her son, "I say when he starts driving he'll have a cell phone." In other cases, it was a family tradition that was expected to prompt the purchase of a cell phone: "He's going to a camp-type thing in Washington, D.C., this summer . . . When his sister did the same thing, that's when we got her one" (Jane, European American mother).

For some mothers, cell phone ownership as a rite of passage was not associated with a particular event but with the increase in activities that mothers expected to come in later adolescence. An expectation was expressed by several mothers that their son or daughter would reach a point, likely in high school, when they would be involved in so many activities that it would require a cell phone in order for parents to keep up with them. "He's not active enough [now]. I mean, if he was active in sports enough that we had to pick him up or know where he is, then he probably would need one" (Sarah, African American mother). Natasha (African American mother) explained that her daughter, Niobe, would probably get a cell phone in high school because Natasha had learned that it was necessary with her older children. "Her [older] sister here is in high school. She got a cell phone and the reason is . . . when she get out of school she always has something else that she have to do." As a result, Natasha bought her older daughter a cell phone so that they would be able to coordinate all of her daughter's activities, and she expected the same would be true for Niobe.

Adolescent Responsibility. Cell phones held meaning for both early adolescents and mothers as a symbol of attaining a certain level of responsibility that was considered a prerequisite for ownership. This expectation of responsibility was expressed primarily when early adolescents did not own cell phones. A few participants noted the potential for irresponsible use that accompanies cell phones, such as Lateisha (African American girl), "I thought my mom didn't want me to have a cell phone 'cause she thought I would misuse it." In most cases, though, responsibility was viewed in terms of maintaining the phone itself, rather than responsibility in the use of the phone. As Matthew, a European American boy, explained, "You know, if you get something expensive like that there's always the chance of losing it." Responsibility was a concern particularly for mothers of adolescent boys. When asked why her son did not own a cell phone, Jane (European American mother) answered, "The main reason is I just don't know if he's going to be able to hold on to it." Another mother, Patty, had the same concern for her son, "He just has a problem keeping up with things" (European American mother).

One mother capitalized on the belief that cell phones require responsibility to encourage the development of responsibility in her son. She described her reasons for purchasing her son a cell phone:

> To be honest, it was an incentive for showing maturity and responsibility this year. We started that out at the beginning of the school year just saying that if you can show that you can be responsible and respectful and [show] maturity at school, and things like that—'cause we'd had some issues with that last year—then possibly we can work

toward getting a cell phone . . . and it seemed to really help because he really did a good job the first semester. (Nancy, European American mother)

Independence From Other Phones. A primary benefit of cell phones for early adolescents was that they permitted independence from other telephones. Early adolescents described situations in which they required or desired the use of a telephone and were unable to access one.

> There are those times in school when I forget an assignment and they won't let me use the phone to call my mom about it, and I'll be like [makes a growling noise], "I really wish I had a cell phone." Or like those times when the phones are being used in my house and I really need to call a friend and I'll ask, "Kelly [Matthew's sister], can I use your cell phone?" She'll be like, "No!" So, I'm like, [growls again] "I really wish I had a cell phone." (Matthew, European American boy)

Early adolescents viewed owning a cell phone as a means of gaining freedom from the house telephone. Early adolescents were particularly enthusiastic about using a telephone without interruptions from others. For many, cell phones symbolized a release from the frustration of sharing a home telephone with family members, particularly mothers. "The house phone, you just can't stay on all that you want to, 'cause mom be telling us to get off 'cause she gotta use it. So a cell phone, if it's mine, and it ain't nobody gonna use it, I'll just stay on" (Dan, African American boy). Others described the irritation of competing for telephone time with adolescent siblings. "'Cause my sister always be on the house phone, I need another phone to talk on" (Keisha, African American girl).

Mothers also mentioned the issue of dependence on other telephones, though far less often than early adolescents, and generally in reference to concerns regarding adolescent children's ability to contact a parent if necessary. "Usually the teachers in the office lock up right after school and he's having to borrow someone else's phone, and it just bothers me that I can't get in touch with him if I need to tell him when I'm going to be there or if something comes up" (Whitney, European American mother). Jackie (European American mother) expressed even greater concern, "Just, you hear about all these things happening at school, and they're not supposed to have 'em at school, but if there was ever an emergency, I would know that she had it."

Parental Authority. Early adolescents and their mothers expressed beliefs that adolescents' cell phones had the potential to generate changes in parental authority. The perceived direction of such changes varied, however, as parents and early adolescents spoke of cell phones as both increasing and decreasing parents' authority over their early adolescents. On one hand, cell phones were perceived as providing early adolescents increased opportunities to act independently. Alternatively, cell phones were viewed as a tool to facilitate parental monitoring abilities, thus limiting increases in autonomy that cell phone ownership was expected to bring.

Enhanced monitoring. In many cases, cell phones were described as a means by which parents could enhance their monitoring. This was especially true when early adolescents currently owned

cell phones. Perceptions of enhanced monitoring took two primary forms: keeping in touch with adolescents and monitoring phone calls and texts.

Most mothers and early adolescents described enhanced parental monitoring in terms of mothers' ability to stay in contact with their adolescents when adolescents were out of the home. "Sometimes, like, if I'm walking around the neighborhood they'll, like, check on me sometimes and stuff" (Marissa, European American girl). Patty noted one benefit of a cell phone for her son, "He would always be able to check in and I would know where he is and what he's doing" (European American mother). Early adolescents expressed little emotion regarding this aspect of enhanced monitoring, seemingly accepting it as a parental right that did not affect them either positively or negatively.

Most mothers were also fairly neutral in their appraisal of cell phones as a means for contacting their early adolescents when they were away, but a few mothers expressed strong beliefs that cell phones enhanced their ability to monitor early adolescents. "I resisted [buying her a cell phone] until one weekend I was away and I couldn't get in touch with her and it just drove me crazy, so I came back and got her a cell phone that next Monday" (Chantelle, African American mother). Another mother (Jackie, European American mother) described how her daughter, Marissa, used her cell phone to inform her mother that her sister, Carrie, was in the process of defying their mother's instructions to stay at the ice-skating rink with their friends. "Marissa called me and said, 'Mom don't tell [Carrie] I told you, but you need to call her . . . She might try to sneak over to McDonald's with her friends." The mother then took action by going to the skating rink to put a stop to any plans her older daughter might have had. "I just hopped in the car and went over there, and [Carrie] was mad at me." Jackie felt strongly that her daughters' cell phones allowed her to know where they were and what they were doing at all times, and she used this advantage at every opportunity. An additional benefit in this scenario was that one child was able to inform her mother of the situation anonymously, at least temporarily, and it was not the mother who eventually spoiled the anonymity, "because I wasn't going to tell her. Marissa said, 'don't let her know I called you.' Well, Marissa told her the other day. She said, 'I did call Mom.'"

Cell phones also enhanced maternal monitoring through mothers' ability to supervise early adolescents' cell phone use. Mothers monitored cell phone use by looking at bills to see who early adolescents had been talking to, reading adolescents' text messages, and listening to voice mail messages. However, few mothers seemed to engage in such activities with any regularity or conviction. "With Carollee, now I do read my text messages when she uses my phone. Like every now and again I'll read the text messages" (Carol, African American mother).

Diminished monitoring. Although most early adolescents and their mothers expected cell phones to enhance parents' abilities to monitor their early adolescents, several mothers described fears that if their adolescents owned cell phones, mothers would lose the ability to monitor them. With that loss, mothers feared that adolescents might gain too much autonomy too quickly.

> I feel like the parents should be in charge, I think [a cell phone] takes away from the parenting; it's almost like I'm on his time. I should know where he is at all times, not be available via phone to him to be all over town. I think we lose some of our parental strength, giving these kids these cell phones at too young age. (Tamika, African American mother)

> I know a lot of his friends got them for Christmas, and I think that theparents that I have talked to feel less in touch with what's going on with them than before . . . because the friends are calling each other on these cell phones and being more secretive. (Patty, European American mother)

In some cases, mothers' lack of technological knowledge proved to be a hindrance to monitoring early adolescents' cell phone usage. Cell phones allowed mothers the unique opportunity to monitor their early adolescents' phone calls and texts but only if they had knowledge concerning how to do so. When asked if his mother ever checked on his cell phone use, Dimere responded, "She don't know how to use cell phones that way" (African American boy). For mothers to take advantage of cell phone functions that could be beneficial in monitoring, they must first have the knowledge that they can be used in such a manner and the technological expertise to do so.

Unnecessary monitoring. In many cases, mothers indicated that cell phones were unnecessary for monitoring because their adolescents did not require monitoring, or it could be accomplished by alternative means. Sherrie (European American mother) told the story of how her daughter, Ashley, pleaded for a cell phone. "She was making the argument, 'You can call me at any time dada-da-da-da.' I said don't worry 'bout that, I know how to get in touch with you if I need you." Natasha, an African American mother, echoed this sentiment, "Mostly she spend her time away from school here [at home] . . . so I don't think there is a need for it yet." Jill (European American mother) acknowledged that a cell phone could be helpful in an emergency but was not convinced it was necessary. "He could call me if he was with someone in a wreck or something happened at school or those things, but gee, all he has to do is ask the person next to him; they probably have one."

Cell Phones as a Status Symbol

Cell phones held significance as an opportunity to increase early adolescents' social status. However, few of the early adolescents noted this facet of cell phone ownership; it was almost exclusively mentioned by mothers. Mothers repeatedly suggested that their adolescents wanted cell phones only because they wanted to be like everyone else or to show them off. "She thinks she's the only 13-year-old on planet Earth without a cell phone. She reminds me on every possible occasion that she does not have a cell phone" (Amber, European American mother). When asked about the reasons her son gave for wanting a cell phone, Larina, an African American mother, recalled that the only reason he had ever given was that "all his friends has 'em." Sherrie (European American mother) explained, "She tells me everyone at school's got

one, the popular crowd." Sherrie's daughter expanded on this, making it clear that it was not just her schoolmates' cell phones that were tempting her, "My brother . . . has one. He thinks he's all that just because he has one and I don't" (Ashley, European American girl). Several mothers suggested that their adolescents actually had little use or desire for cell phones other than for status. "He's never called anybody but us, but he loves the fact that he's got one" (Roberta, European American mother). Whitney, a European American mother, stated that her son never used his cell phone to talk with friends; she laughed as she said, "He wants a cell phone, but I'm not really sure why."

Discussion

This qualitative study of the meanings of cell phones indicated that early adolescents and their mothers' thinking about the meanings of adolescent cell phone usage can be described in terms of three themes: (a) cell phones facilitating interpersonal connections, (b) cell phones promoting adolescent autonomy, and (c) cell phones as a status symbol. Subsumed under these three themes were subcategories of meaning that were differentially salient based on maternal versus adolescent perspective but generally not based on ethnicity, socioeconomic status (SES), or child gender. We discuss the manner in which each of these themes relate to the unique psychosocial challenges that characterize early adolescence.

Interpersonal connectedness was a high priority for the early adolescents participating in this study, and cell phones held psychological meaning as tools that facilitated such connections. This was consistent with findings of previous studies (Campbell, 2006). In early adolescence, individuals are focused on developing peer relationships they will use for support, companionship, and guidance (Parker & Asher, 1993). Yet during this developmental period, parent-child relationships continue to play an important role in early adolescents' lives (Collins, 1997). The complementary needs for connection to peers and connection to parents during early adolescence were reflected in the manner in which participants in this study talked about the role of cell phones in supporting their relationships. Early adolescents and their mothers reflected upon cell phones as important tools that allowed them to remain emotionally and physically connected to their friends and family members, including mothers, nonresidential fathers, and extended family members. Clearly, access to cell phone technology has the potential to support the development of social connectedness, a central psychosocial task during adolescence. This emphasis on connection was also reflected in the manner in which both mothers and early adolescents spoke about mothers' use of cell phones to monitor adolescents' locations and activities. In contrast to previous studies (Williams & Williams, 2005), participants in this study never spoke of cell phones as symbols of parental intrusion. Instead, both early adolescents and mothers seemingly took it for granted that cell phones would be used as a tool in parental monitoring efforts, with such use viewed by both relationship partners as appropriate and even desirable. Early adolescents seemed to view this function of cell phones as something to be expected and consistent with the presence of close and supportive relationships with their mothers. Early adolescents are more likely to expect and accept parental efforts to maintain

authority over them than are older adolescents (Darling, Cumsille, & Martínez, 2008), so our findings in this respect may be related to the age of our participants. Alternatively, it may be that the increased prevalence of cell phones has led early adolescents and mothers alike to expect and feel comfortable with the constant potential intrusions of others into their lives in ways that cell phone users just a few years ago may have found bothersome.

The focus on interpersonal connectedness that characterizes adolescence is accompanied by a parallel emphasis on autonomy development (McElhaney, Allen, Stephenson, & Hare, 2009). Consistent with a perspective on adolescent development that emphasizes both connection and individuation (Collins & Steinberg, 2006), our participants discussed cell phone ownership as reflective of maturity, autonomy development, and emancipation from parents (Ling & Yttri, 2006). However, we did observe differences in the ways that early adolescents versus mothers discussed this meaning of cell phones. Adolescent participants viewed cell phones as having the potential to facilitate autonomy by allowing them to increasingly engage in activities outside of the direct supervision of parents and freeing them up from restrictions associated with sharing telephones with others. Early adolescents tended to emphasize concrete aspects of autonomy development and the manner in which cell phones benefited them in this respect.

In contrast, mothers tended to emphasize the psychological components of autonomy and the potential downsides of cell phone ownership in relation to this psychosocial challenge. Mothers were more likely to discuss the roles of maturity, responsibility development, and critical life events as they related to cell phone ownership. While some mothers embraced the role of cell phones as potentially supporting or rewarding the development of personal responsibility, others expressed reservations about whether early adolescents might be ready for the increased responsibility represented by cell phone ownership. Mothers who emphasized this lack of readiness were more likely than mothers whose early adolescents already owned cell phones to discuss cell phone ownership as a rite of passage, emphasizing its appropriateness when early adolescents attained a certain developmental status or experienced a certain event (e.g., advent of driving, transition to high school). This view is consistent with current estimates of cell phone ownership. Seventy-five percent of 15- to 17-year-olds with drivers' licenses have cell phones compared to 47% of nondrivers of the same age, suggesting that the event of obtaining a license is associated with an increase in cell phone ownership. The transition from middle school to high school is also associated with significant increases in cell phone ownership (Lenhart et al., 2005). The fact that these events largely occur in middle adolescence explains why this element of cell phone meaning was only mentioned when early adolescents did not yet own cell phones. Early adolescents who already owned cell phones clearly did not wait for one of these events for the purchase of a cell phone, and therefore they and their mothers were unlikely to associate the purchase of cell phones with a rite of passage.

The role of cell phones as a source of increased autonomy for early adolescents suggests that cell phones may also be a potential source of diminished parental authority. Increases in any form of adolescent autonomy are accompanied by renegotiations of roles in parent-child relationships

(Collins, 1997), and autonomy gained via cell phones is no exception. By including mothers in our sample, we were able to learn more about the kinds of concerns that this dynamic created for mothers of early adolescents. Mothers expressed fears regarding loss of parental control and loss of connection to their adolescent children. However, for most mothers these fears were modest and were tempered by an emphasis on the benefits that could be gained from cell phones. In sum, mothers' and early adolescents' perspectives regarding early adolescent cell phone ownership and use reflected an understanding that this technology had the potential to simultaneously promote social connectedness and autonomy development. There was also an understanding that such psychosocial achievements were not expected to be attained without potential pitfalls along the way.

Mothers within our study discussed the social status that accompanies cell phone ownership. This focus on social prestige is consistent with research indicating that popularity within the adolescent peer group is defined not just in terms of likability but also the status or prestige assigned to a given individual (Cillessen & Rose, 2005). Therefore, prestige gained through cell phone ownership could prove valuable in regards to peer status. Ling (2000) also found that the prestige associated with cell phone ownership was a major factor contributing to early adolescents' desires to own such a device.

Our results support Ling's (2004) proposal that adolescents' cell phone ownership and use result in the development of both autonomy and connection. The simultaneous increases in these somewhat disparate processes could lead to confusion and frustration for adolescents and their parents. For instance, are adolescents truly independent when they are out with friends, away from parental supervision, if their parents could call at any time? However, Ling (2007) suggested that cell phones could potentially hamper long-term autonomy development. When adolescents can reach their parents at any time, with any problems they may encounter, they may not need to develop the social and cognitive skills necessary for autonomy. This is consistent with Campbell's (2006) characterization of cell phones as surrogate parents. If this is the case, cell phones might represent a kind of false autonomy—giving the appearance that adolescents are autonomous but in fact allowing them to remain dependent on parents. Additional research is needed to understand the specific manner in which cell phones contribute to adolescents' relational and autonomy development as well as the resulting outcomes of this development.

Directions for Further Research

Our analyses indicated no differences across ethnicity or SES in terms of the meanings attributed to cell phone ownership during early adolescence. Yet our sample size was fairly small and was restricted to only two ethnic groups. It will be important to continue to consider these contextual factors in future research regarding adolescents and cell phones. Cell phones come with a substantial financial burden, and this fact is likely to be related to SES. There is recent evidence that individuals from more economically disadvantaged backgrounds are just as likely to use cell phones daily as those from more advantaged backgrounds (Lenhart, Arafeh, Smith, & Macgill,

2008); however, little is known about how SES is related to the meanings individuals assign to cell phones. For example, for adolescents from more affluent backgrounds, the status associated with cell phones may be more dependent on the type of cell phone owned rather than simply ownership or lack thereof.

The current study was based on a sample of early adolescents, which is likely the reason that a minority of our participants owned their own cell phones. Our focus on early adolescence was deliberate and appropriate given our interest in exploring the psychological meanings assigned to cell phones rather than personal experiences with cell phone ownership. However, there is clearly a need for additional research on this topic that extends further into adolescence, including longitudinal inquiries that track the decision-making processes accompanying the acquisition of cell phones and the manner in which meanings attributed to such phones changes over time and ownership status.

In sum, there is a need to extend the study of the meanings attributed to cell phone ownership in adolescence to include samples that are more diverse in terms of ethnicity, SES, culture, and age. Also, further research on this topic should include longitudinal inquiries and the application of both qualitative and quantitative methods. Given the emerging nature of this research topic, our decision to pursue an in-depth qualitative approach focusing on a relatively small sample of early adolescents and their mothers was appropriate and yielded valuable information concerning the manner in which these individuals thought about the roles of cell phones in their lives. We look forward to extending our study of this topic in terms of sample composition, methodological approaches, and the inclusion of research questions related to associations between cell phones and indicators of adolescent development and family functioning. As a new and evolving tool of communication, cell phones have the potential to shape a multitude of psychological and relationship dynamics that will have far-reaching implications for the lives of the individuals who own and use this technology.

References:

Aoki, K., & Downes, E. J. (2003). An analysis of young people's use of and attitudes toward cell phones. Telematics and Informatics, 20, 349-364.

Berndt, T. J. (2004). Children's friendships: Shifts over a half-century in perspectives on their development and their effects. Merrill-PalmerQuarterly, 50, 206-223.

Campbell, R. (2006). Teenage girls and cellular phones: Discourses of independence, safety, and "rebellion." Journal of Youth Studies, 9, 195-212.

Charlton, T., Panting, C., & Hannan, A. (2002). Mobile telephone ownership and usage among 10- and 11-year-olds: Participation and exclusion. Emotional & Behavioural Difficulties, 7, 152-163.

Cillessen, A. H. N., & Rose, A. J. (2005). Understanding popularity in the peer system. Current Directions in Psychological Science, 14, 102-105.

Collins, W. A. (1997). Relationships and development during adolescence: Interpersonal adaptation to individual change. Personal Relationships, 4, 1-14.

Collins, W. A., & Steinberg, L. (2006). Adolescent development in interpersonal context. In N. Eisenberg, W. Damon, & R. M. Lerner (Eds.), Handbook of child psychology (6th ed., Vol. 3, pp. 1003-1067). Hoboken, NJ: Wiley.

Darling, N., Cumsille, P., & Martínez, M. (2008). Individual differences in adolescents' beliefs about the legitimacy of parental authority and their own obligation to obey: A longitudinal investigation. Child Development, 79, 1103-1118.

Duck, S. (2008). Silver anniversary essay: A past and a future for relationship research.Journal of Social and Personal Relationships, 25, 189-200.

Helms, H. M., & Demo, D. H. (2005). Everyday hassles and family stress. In P. C. McKenry & J. Price (Eds.), Families and change: Coping with stressful events and transitions (3rd ed., pp. 355-378). Thousand Oaks, CA: SAGE.

Hollingshead, A. (1975). Four factor index of social status. Unpublished manuscript, Yale University.

Horrigan, J. A. (2008). Mobile access to data and information. Retrieved July 16, 2009, from the Pew Internet & American Life Project website: http://www.pewinternet.org/Reports/2008/Mobile-Access-to-Data-and-Information.aspx

Lenhart, A. (2009). Teens and mobile phones over the past five years. Retrieved January 22, 2010, from the Pew Internet & American Life Project website: http://www.pewinternet.org/Reports/2009/14—Teens-and-Mobile-Phones-Data-Memo.aspx

Lenhart, A., Arafeh, S., Smith, A., & Macgill, A. (2008). Writing, technology, and teens. Retrieved June 12, 2009, from the Pew Internet & American Life Project website: http://www.pewinternet.org/Reports/2008/Writing-Technology-and-Teens.aspx

Lenhart, A., Madden, M., & Hitlin, P. (2005). Teens and technology. Retrieved May 6, 2009 from the Pew Internet & American Life Project Web site: http://www.pewinternet.org/Reports/2005/Teens-and-Technology.aspx

Ling, R. (2000). "We will be reached": The use of mobile telephony among Norwegian youth. Information, Technology, & People, 13, 102-120.

Ling, R. (2007). Children, youth and mobile communication. Journal of Children and Media, 1, 60-67.

Ling, R. (2008). New tech, new ties: How mobile communication is reshaping social cohesion. Cambridge, MA: MIT Press.

Ling, R., & Yttri, B. (2006). Control, emancipation, and status: The mobile telephone in teens' parental and peer relationships. In R. Kraut, M. Brynin, & S. Kiesler (Eds.), Computers, phones, and the Internet: Domesticating information technology (pp. 219-234). Oxford, UK: Oxford University Press.

McElhaney, K. B., Allen, J. P., Stephenson, J. C., & Hare, A. L. (2009). Attachment and autonomy during adolescence. In R. M. Lerner & L. Steinberg (Eds.), Handbook of adolescent psychology (2nd ed., Vol. 1, pp. 358-403). Hoboken, NJ: Wiley.

Miles, M. B., & Huberman, A. M. (1994). Qualitative Data Analysis. Thousand Oaks, CA: SAGE.

Morin, R., & Taylor, P. (2009). Luxury or necessity? The public makes a u-turn. Retrieved April 23, 2010, from the Pew Internet & American Life Project website: http://pewsocialtrends.org/pubs/733/luxury-necessity-recession-era-reevaluations#pew-research-jump

Parker, J., & Asher, S. (1993). Friendship and friendship quality in middle childhood: Links with peer group acceptance and feelings of loneliness and social dissatisfaction. Developmental Psychology, 29, 611-621.

Prentice, D. A. (1987). Psychological correspondence of possessions, attitudes, and values. Journal of Personality and Social Psychology, 53, 993-1003.

Rankin, J., Lane, D., Gibbons, F., & Gerrard, M. (2004). Adolescent self-consciousness: Longitudinal age changes and gender differences in two cohorts. Journal of Research on Adolescence, 14, 1-21.

Richards, M., Crowe, P., Larson, R., & Swarr, A. (1998). Developmental patterns and gender differences in the experience of peer companionship during adolescence. Child Development, 69, 154-163.

Steinberg, L. (2001). We know some things: Parent-adolescent relationships in retrospect and prospect. Journal of Research on Adolescence, 11, 1-19.

Weisskirch, R. S. (2008). Parenting by cell phone: Parental monitoring of adolescents and family relations. Journal of Youth and Adolescence, 38, 1123-1139.

Williams, S., & Williams, L. (2005). Space invaders: The negotiation of teenage boundaries through the mobile phone. The Sociological Review, 53, 314-331.

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