Where Should I Put My Cell Phone? An Expectancy Violations Approach to the Presence of Cell Phones in Romantic Relationships

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ABSTRACT
The current study surveyed 234 traditional college-aged students to investigate expectancies that romantic partners had of cell phone usage during face-to-face interactions, how expectancy violations were managed, and whether violations ultimately detracted from the perceived quality of the relationship. Results revealed that cell phone usage behaviors occurring in public settings were viewed as significantly more unexpected, negatively valenced, and atypical than behaviors that occurred in private settings. Integrative communication strategies were the most common responses to partners’ negative cell phone usage behaviors; these strategies included talking to and sharing feelings with romantic partners. Romantic partners with higher relational satisfaction were more likely to use constructive communicative responses in response to negative cell phone usage behaviors. Additionally, cell phone satisfaction was positively correlated with relational satisfaction. Although mean scores indicated that romantic partners were generally indifferent to the use of the cell phone in face-to-face interactions in both public and private settings, results revealed through thematic analysis indicated that participants were indeed bothered by cell phone usage behaviors. Thus, the current study suggests that among college-aged students, the cell phone itself has become so integrated into individuals’ lives that cell phone-related behaviors have become normalized, and therefore, highly tolerated.

INTRODUCTION
A recent Pew Report found that 92% of adults have a cell phone, and 90% of those users report that their phone is most often with them (Rainie & Zickhur, 2015). Cell phones are essential in helping relational partners stay connected (Miller-Ott, Kelly, & Duran, 2012). However, of the cell phone users, 82% say that when people use their phones in social situations, it frequently or occasionally hurts the conversation. Furthermore, a recent Time article claims that “nothing kills romance faster than pulling out a smartphone” (Oaklander, 2016, para. 1). With the essentiality of the mobile device to everyday life, multitasking becomes a principal way in which cell phone use interferes with relationships (Roberts & David, 2016). The constant connectivity cell phones provide challenges users to manage demands to be present in face-to-face interactions with others while simultaneously remaining available to non-present others via their phones (Kelly, Miller-Ott, & Duran, 2017). To illustrate this concept, Roberts and David (2016) coined the term “phubbing,” in which individuals snub someone by using their cell phone in one another’s company.

Romantic relationships provide an interesting context to study cell phone usage. With the integration of cell phones into the development and maintenance of relationships, romantic partners often have internalized norms that they expect their romantic partners to adhere to regarding cell phone usage (Hall, Baym, & Miltner, 2014). The current study aims to expand on previous research in order to examine expectancies that young adult romantic partners have of cell phone usage during face-to-face interactions, how the expectation violations are managed, and whether violations detract from the overall perceived quality of the romantic relationship.

Cell phones demand attention, and can henceforth negatively impact satisfaction within romantic relationships (Roberts & David, 2016). With their constant beeping, vibrations, and notifications, cell phones require much attention from individuals. In fact, the mere presence of a cell phone itself, even if not being used, may serve as a distractor that henceforth results in deficits to attention and performance (Thornton, Faires, Robbins, & Rollins, 2014). As cell phones are and will continue to be an essential component in romantic relationships, it is important to understand how even the mere presence of a mobile device has the power to affect face-to-face interactions and relationships in a significant way. The current study aims to provide insights on romantic relationships and cell phone usage during face-to-face interactions. In examining the presence of cell phones in romantic relationships
through an expectancy violations theory approach, the literature review will investigate previous scholarship on cell phone usage and romantic relationships, and from there, the hypotheses and research questions will be posed.

**LITERATURE REVIEW**

*Cell Phone Usage in Relationships*

The topic of cell phone usage in relationships is widely studied and has been explored in multiple contexts. The “constant connectivity” that a cell phone provides contributes to a constant fixation on the device, with most users checking their phone right away when they get up in the morning, continually throughout the day, and again right before they fall asleep (Thornton et al., 2014). Many users report that they could not go without their phone for even one day. The pervasive integration of technologically-mediated communication and face-to-face communication in relationships creates an inextricable interconnectedness between channels of communication (Caughlin & Sharabi, 2013). Cell phone users engage in both face-to-face communication and technologically-mediated communication so frequently that the channels become linked to one another. Caughlin and Sharabi (2013) investigated the interplay between face-to-face interactions and technologically-mediated communication, finding that how individuals use different channels of communication in conjunction influences the quality and success of the relationship.

As a romantic relationship develops, intimate self-disclosure and communication may be enhanced or impeded by different forms of technologically-mediated communication. Yang, Brown, and Braun (2014) examined the usage patterns of communication technologies among college students. Individuals commented that as a relationship progressed, they “desired more personal interactions with each other, so that they would actually ‘know’ the person instead of just ‘knowing of’ him or her, as one participant put it” (Yang et al., 2014, p.19). Participants reported that to truly become familiar with an individual, more personal give-and-take was needed. However, several studies show that during face-to-face interactions between individuals, the mere presence of a cell phone can have a significant effect on the social interaction. Thornton et al. (2014) found that the presence of a cell phone itself, even if not in use, can act as a distractor and result in attention and performance deficits. Attention to the cell phone yields diminished attention to the task (or person) at hand as decreased task-performance, especially in regards to tasks that demand more attention and cognitive ability. The simple presence of the cell phone serves as a constant access point to an extensive social network that is always available (Thornton et al., 2014). This easy access to a larger network creates tensions between paying attention to the social network versus paying attention during a face-to-face interaction. Even when they are not in use, cell phones act as a representation of an individual’s wider social network and an access point to a wealth of information (Misra, Cheng, Genevie, & Yuan, 2016). Individuals become preoccupied by their mobile device and feel as though there is a need to constantly be checking for texts and calls.

Furthermore, the interference of cell phones with human relationships becomes increasingly salient when engaging in more intimate conversations. Przybylski and Weinstein (2012) found that “the presence of mobile phones can interfere with human relationships, an effect that is most clear when individuals are discussing personally meaningful topics” (p. 237). The presence of a mobile phone actually inhibited the development of closeness and trust, and decreased the degree to which individuals felt a sense of empathy and understanding from their relational partner. Misra et al. (2016) extended the Przybylski and Weinstein (2012) study to examine the relationship between the presence of cell phones and the quality of face-to-face interactions, finding that participants who engaged in a face-to-face interaction in the presence of a mobile device reported lower levels of empathy than participants engaging in the absence of a mobile device. Mobile phones act as symbols in an advanced technological society. In the presence of a mobile device, individuals have a continual desire to seek new information, check for messages, and direct their thoughts to other areas. The distraction of a cell phone undermines the depth of the connections individuals try to make during face-to-face interactions.

*Cell Phone Usage in Romantic Relationships*

Romantic relationships become a fascinating context from which to examine cell phone usage, considering the intimate, close nature of such relationships. Relational communication satisfaction has been found to be a crucial difference between happy romantic couples and unhappy romantic couples (Juhasz & Bradford, 2016). The constant connection cell phones provide make it challenging for individuals to block out the outside world and focus on developing meaningful relationships. Conversely, cell phones also give users more freedom to contact one another at any point in time since they remove the necessity of being in a fixed location (Duran, Kelly, & Rotaru, 2011). The constant connectivity that a mobile device provides may facilitate relationship maintenance, but may also place a potential strain on romantic relationships in regards to cell phone usage expectations. According to Duran et al. (2011), the perpetual contact garnered from the cell phone creates high expectations for availability among romantic partners, which can often lead to conflict, usage rules, need for control over relational partners, and feelings of limited freedom.
Due to the potential for conflict, many couples negotiate implicit rules surrounding cell phone use. However, some claim that it is not necessary. Miller-Ott et al. (2012) further examined the implementation of cell phone usage rules and their effect on romantic relationship satisfaction through a three-part online survey. Apart from establishing a rule involving the prohibition of relational arguments over the cell phone, the young adults who participated in the survey indicated that they disagreed with having rules based on cell phone usage, and even rules that maintained their privacy. Participants were more satisfied in their relationship if they did not have rules that limited their ability to continue making contact on their cell phone with their partner or limited access to their partners' call and text logs.

Since cell phones enable individuals to maintain connections with non-present others, individuals must deal with the challenge of trying to pay attention to their co-present romantic partner while simultaneously attempting to pay attention to non-present others who may be trying to contact them via their cell phone (Miller-Ott & Kelly, 2016). Therefore, romantic partners often must engage in sensemaking as a means to understand how expectations for special attention during face-to-face interactions may clash with availability expectations introduced by cell phones. Miller-Ott and Kelly (2016) found that individuals voiced the expectation that they want to always be available to non-present others, yet they expect that romantic partners should be attentive and actively get to know one another during dates. These contradictory discourses create a challenge for romantic partners to construct meaning around cell phone usage, especially when first getting to know their romantic partner.

The distraction of a mobile device in a face-to-face interaction interferes with the development of intimacy in a romantic relationship. As responsiveness and attention are crucial to the development of intimacy in romantic relationships, it is essential that individuals examine ways to manage cell phone usage during face-to-face interactions. In fact, a recent study by Roberts and David (2016) coined the term “phubbing,” in which relational partners snub one another by using their cell phone in one another’s company. According to Roberts and David (2016), the phub could be “an interruption of your conversation with someone when he or she attends to their cell phone or when you are in close proximity to another but they use their cell phone instead of communicating with you” (p. 134). The research found that interruptions and distractions caused by “phubbing” behavior increased conflict around the behavior, and that increased phubbing resulted in not only lower relationship satisfaction, but lower satisfaction with life and higher levels of depression (Roberts & David, 2016). The way in which romantic partners utilize their mobile devices in the context of their relationship can have a significant effect on the development, maintenance, and quality of the relationship.

**Expectancy Violations Theory**

Originated by Burgoon as an attempt to explain proxemic behavior and communication, expectancy violations theory (EVT) has expanded to incorporate a wide range of both nonverbal and verbal behaviors (Burgoon, 1993). Expectancy violations theory assumes that individuals develop expectations on how people should act and that these expectations shape and direct interaction; they remain stable when activated, meaning that the expectations are consistently in place throughout an interaction. The three main components of EVT are expectancies, violation valence, and communicator reward value (Miller-Ott & Kelly, 2015). The first component, expectancy, includes what individuals predict will happen in an interaction. The second component, violation valence, is the positive or negative value placed on the unexpected behavior. The final component, communicator reward valence, is the assessment of positive and negative attributes the violator brings to the interaction. The three components work together to predict how individuals make sense of violations and how they respond to the violations.

Expectancy violations theory is often applied to topics in technologically-mediated communication (e.g., Bevan, Ang, & Fears, 2014; Hall et al., 2014; and Miller-Ott & Kelly, 2015). Bevan et al. (2014) examined the act of “unfriending” on Facebook as an expectancy violation. The findings suggested that the type of relationship in which a violation happens is often used as an important evaluator for individuals to perceive and interpret the expectancy violation. The researchers suggested that violation expectedness may not be predicted solely on basic relationship characteristics, but rather on “quality” relationship indicators such as relationship satisfaction. Relationship satisfaction is, ultimately, one of the most important components in the maintenance of relationships.

Recent work with EVT centers on close, romantic relationships. As relationships form and develop between romantic partners, expectancies become more specific to the communicators involved and are influenced by relational characteristics, including acceptable behaviors. Each partner’s face, or public image, becomes intertwined in the identity and behavior of the other, and inappropriate behaviors by one partner threaten the relationship-specific face shared by both romantic partners (Hall et al., 2014). Unacceptable behaviors, such as using a cell phone in the middle of a face-to-face interaction, can result in decreased quality, satisfaction, and length of romantic relationships.
EVT and Cell Phone Expectations

Expectancy violations theory provides a unique framework to examine the presence of cell phones in romantic relationships. As research on EVT has shown, when individuals experience an expectancy violation, they seek an explanation for the violation and evaluate the violator (Hall et al., 2014). As technologies like mobile phones continue to develop, norms and expectations surrounding these technologies constantly change, making disparities in expectations more likely. It then becomes increasingly difficult to establish “appropriate” or “acceptable” norms of conduct on the usage of cell phones during face-to-face interactions in romantic relationships. However, Hall et al. (2014) found that the more that people saw themselves and their romantic partners abiding by their internalized norms, the greater relationship commitment and satisfaction they felt. This finding suggests that engaging in “acceptable” cell phone usage behaviors governed by norms is crucial in romantic relationships.

Furthermore, the expectation of perpetual availability in an individual’s social network may conflict with the expectations romantic partners have for behavior during face-to-face conversations (Miller-Ott & Kelly, 2015). The division in attention that the mobile phone often creates hinders the ability of romantic partners to really get to know one another, since they are balancing demanding needs of attending to their cell phones while also attending to one another in face-to-face interactions. Add frequent disparate norms for how to engage in cell phone usage, and cell phone usage behaviors become much more ambiguous to perceive either as positive or negative. In those more ambiguous situations, partners place more significance on evaluating communicator reward value. Thus, Miller-Ott and Kelly (2015) raised important questions on whether romantic partners could develop expectations that eliminate the ambiguity often created by the cell phone. The use of focus groups revealed that participants had a significant level of consistency on expectations for undivided attention during more formal interactions between romantic partners. For example, when engaging in more face-to-face, intimate moments with a partner, the use of a cell phone communicated that the romantic partner was interested in another person or interaction. Thus, reactions and evaluations were shaped by the context (Miller-Ott & Kelly, 2015). Additionally, reactions were shaped by the stage of the relationship. For example, within the context of newer relationships, participants rarely talked about hanging out as something they did early in the relationship. Therefore, hanging out implied relational history. If romantic partners were “hanging out,” there were more fluid expectations about cell phone usage. However, given the relatively recent integration of the mobile phone as an essential component in the maintenance of romantic relationships, Miller-Ott and Kelly (2015) suggest that individuals are still working on a set of expectations that resolve the contradictory expectation for attentiveness to a partner and simultaneous attentiveness to a greater social network provided through the cell phone.

In an expansion of the Miller-Ott and Kelly (2015) study, Kelly et al. (2017) found that among the adult age group, cell phone usage while in the presence of a romantic partner is not unexpected, and therefore, is not considered an expectancy violation. However, although the behavior was evaluated as expected and typical, many participants viewed the behavior as valenced, with more participants reporting it as a negative valence rather than a positive valence. Overall, as a response to cell phone behaviors during face-to-face interactions, partners tended to do nothing or go on their own phones. Finally, the results demonstrated that cell phone usage during face-to-face interactions is related to satisfaction with cell phones in the relationship, meaning that if partners engaged in negative cell phone behaviors when together, lower cell phone satisfaction resulted (Kelly et al., 2017).

RESEARCH QUESTIONS AND HYPOTHESES

Reflecting on the body of research that examines the presence of cell phones in romantic relationships, the current study aims to expand on work by both Miller-Ott and Kelly (2015) and Kelly et al. (2017). Drawing upon the results from Miller-Ott and Kelly (2015), limitations suggested that researchers should develop quantitative measures of “expectancies, violations, and responses to violations related to cell phone use in romantic relationships” (p. 267). While Kelly et al. (2017) surveyed expectancies, violations, and responses to violations in post-college adults, there has yet to be a study that quantitatively examines the presence of cell phones in romantic relationships from an expectancy violations framework in a sample of traditional college-aged students. Therefore, the current study aims to quantitatively examine the expectations college-aged students have in regards to cell phone usage in romantic relationships. Drawing on the results from Kelly et al. (2017), findings revealed that cell phone usage among post-college adults while spending time with a romantic partner was not unexpected, and therefore not considered an expectancy violation. Furthermore, on average, romantic partners viewed cell phone usage behaviors not as negative or positive, but rather as neutral. Therefore, to test the conclusions drawn from Kelly et al. (2017) with a college-aged student population, the following research question was posed:

RQ1: To what extent do romantic partners perceive cell phone usage behaviors as negative?

Additionally, considering the results from Miller-Ott and Kelly (2015), in contexts in which there are expectations for increased attention from romantic partners, such as on formal dates, expectations for acceptable cell
phone usage differed from more informal situations, such as hanging out at home. The context and space in which
the cell phone usage behavior occurred were important determinants of expectedness, valence, and typicality
perceptions. As such, the following research questions are posed:

RQ2a: Is there a significant difference between individuals’ expectedness of cell phone usage behaviors in
public spaces versus private spaces?
RQ2b: Is there a significant difference between individuals’ valence of cell phone usage behaviors in public
spaces versus private spaces?
RQ2c: Is there a significant difference between individuals’ typicality of cell phone usage behaviors in public
spaces versus private spaces?

Keeping in mind the idea of context, EVT also discusses the importance of the role that partner rewardingness
plays in the perception of unexpected behaviors (Burgoon & Hale, 1988). Kelly et al. (2017) found that the
perceived rewardingness of a romantic partner was significantly and negatively correlated with the valence of the
behavior. To further expand on the results of the Kelly et al. study (2017), the following hypotheses are proposed:

H1a: The more rewarding a partner is perceived to be, the less negative a cell phone expectancy violation is
viewed in public spaces.
H1b: The more rewarding a partner is perceived to be, the less negative a cell phone expectancy violation is
viewed in private spaces.

As mentioned previously, EVT posits that as expectations are violated, individuals interpret and evaluate the
behavior as valenced with either a positive or negative classification attached to the behavior (Kelly et al., 2017).
Positive violations, in which the violation behavior is considered more positive than the expected behavior, are
theorized to produce more positive interactions and outcomes, whereas negative violations are theorized to be
damaging to the interaction (Burgoon, 1993). Again, building on the results from Miller-Ott and Kelly (2015), in
contexts in which there are expectations for increased attention from romantic partners, such as in public,
expectations for acceptable cell phone usage differed from private settings. When tested by Kelly et al. (2017),
research revealed that for post-college adults, dating partners were far more lenient with cell phone usage at
home than when in public settings. To test previous results with a different age group, the following hypotheses are posed:

H2a: Cell phone usage behaviors in a public space are considered more expected, positively valenced, and
typical than the scale midpoint.
H2b: Cell phone usage behaviors in a private space are considered more unexpected, negatively valenced, and
atypical than the scale midpoint.

In response to partners’ cell phone behaviors, post-college adults generally tended to either do nothing or get on
their own phones (Kelly et al., 2017). However, as previous research shows, indirect responses to violations were
much more common in newer relationships. Conversely, in more established relationships, direct responses were
reported more frequently (Miller-Ott & Kelly, 2015). To address communicative responses in cases of cell phone
expectancy violations, the following hypotheses are proposed:

H3: The longer the length of the romantic relationship, the more likely constructive communicative responses
are used to address cell phone usage behaviors.
H4: Higher levels of cell phone satisfaction are related to higher levels of constructive communicative
responses used to address cell phone usage behaviors.
H5: Higher levels of relationship satisfaction are related to higher levels of constructive communicative
responses used to address cell phone behaviors.

Finally, research shows that interruptions and distractions caused by “phubbing” behavior increases conflict
around the behavior, and that increased phubbing results in not only lower relationship satisfaction, but lower
satisfaction with life and higher levels of depression (Roberts & David, 2016). Furthermore, Kelly et al. (2017)
found that cell phone usage when romantic partners are spending time with one another is related to their overall
relational satisfaction. As such, the final hypothesis was posited:

H6: Higher levels of cell phone satisfaction are related to higher levels of relationship satisfaction.

**METHODS**

*Participants*

The sample was comprised of 229 undergraduate students. Participants included 68 males and 161 females,
ranging in age from 18-24 ($M = 20.59$, $SD = 1.42$) who were in a current romantic relationship. The majority of the
participants identified as White/Caucasian (91.3%), with 3.5% Asian/Pacific Islander, 2.6% Hispanic, 0.4% Native
American, 1.3% who preferred not to answer, and 0.9% other. Of the participants, 14% identified as being in a
casual dating relationship, 80.3% were in an exclusive relationship in which they are not seeing other people, 3.1%
were engaged, 0.9% were married, and 1.7% identified as having a different type of romantic relationship. The
length of romantic relationships ranged from one month to 88 months, with a mean length of 20.75 months ($SD = 19.94$). In total, 219 participants reported on heterosexual relationships and 10 on homosexual relationships. The majority of the participants did not live with their partner (90.4%), and 40.6% were in long-distance relationships. All participants and their romantic partners owned smart phones.

**Procedures**

The survey was administered on Qualtrics, an online survey platform, and took approximately 32 minutes to complete. In order to reach the appropriate population, a list of 1,000 random student email addresses was received from a midsized Midwestern university Information Technology department. A link to the Qualtrics survey was sent via email to these 1,000 college-aged students. Participation in the survey was completely voluntary. Additionally, participants were recruited through the researcher’s departmental research pool. Potential participants were also recruited via social media links. The study was approved by the university’s Institutional Review Board.

The first part of the survey consisted of demographic questions about participants and their romantic relationships. Next, participants answered questions to assess their partner’s rewardingness. The next section of the survey provided two contextually different scenarios for participants, adapted from Kelly et al. (2017). The first scenario, situated in a public setting, asked participants to “imagine that you are on a date alone with your partner at a restaurant and your partner engages in the following behaviors during your date/evening out.” The second scenario dealt with a private setting and asked participants to “imagine that you are at your home or apartment spending time alone with your partner and your partner engages in the following behaviors.” Examples of cell phone behaviors were answering a call from a family member and bosses, checking social media, showing them something on their phones, and continually checking the phone. Participants reported on the expectedness, valence, and typicality of each behavior in both the public and private contexts. Next, participants were asked if their partner had ever engaged in a cell phone usage behavior during a face-to-face interaction that the participant viewed as negative. If participants answered ‘no,’ they were taken to the next section of the survey. If the participants answered ‘yes,’ they were asked to describe, in 2-3 sentences, a “recent experience in which you were spending time face-to-face with your current romantic partner and they engaged in a cell phone usage behavior that you viewed as negative.” Participants then reported on how they would respond to the cell phone behavior they had just described in the previous question. Finally, all participants reported on how satisfied they were with the use of cell phones in their romantic relationship and how satisfied they were in their relationship.

**Measures**

**Partner rewardingness.** Participants rated their partner’s rewardingness in regards to love and affection, social status and reputation, physical appearance, money and physical goods, and emotional support and their partner’s global rewardingness. Six, five-point semantic differential items were replicated from Kelly et al. (2017) and modified from Sprecher (2001) and were averaged to reflect a rewardingness index. The first item (rewardingness in regards to love and affection) was eliminated because its inclusion produced an unacceptably low reliability ($0.531$). After the item was deleted, scale reliability was sufficient ($\alpha = 0.736$). Higher scores reflect more partner rewardingness.

**Expectedness, valence, and typicality of the behavior for partner.** First, participants were asked to describe a recent experience in which they were spending time with their current dating or romantic partner in which they noticed that the partner used their cell phone in some way. Then, 10-12 items (10 for the public scenario at the restaurant, 12 for the private scenario at home/apartment) were replicated from Kelly et al. (2017) and modified from Afifi and Metts (1998) to further measure expectedness, valence, and typicality of cell phone usage behaviors. Under each of the items, participants answered three, five-point semantic differential items to measure expectedness of the behavior (is completely expected-is not at all expected), valence of the behavior (is a very positive behavior-is very negative behavior), and typicality of the behavior (is completely typical-is not at all typical). All factors were sufficiently reliable. The ten public expectedness values and then the twelve private expectedness values were averaged to reflect a “public expected” value ($\alpha = .746$) and a “private expected” value ($\alpha = .774$). Lower scores reflected participants viewing behaviors as more expected. Next, the ten public valence values and the twelve private valence values were averaged to reflect a “public valence” value ($\alpha = .774$) and a “private valence” value ($\alpha = .808$). Lower scores reflected participants viewing behaviors as more positive. Finally, the ten public typicality values and the twelve private typicality values were averaged to reflect a “public typicality” value ($\alpha = .759$) and a “private typicality” value ($\alpha = .772$). Lower scores reflected participants viewing behaviors as more typical.

**Communicative responses.** The Communicative Responses to Hurtful Events Scale (Bachman & Guerrero, 2006) was replicated from Kelly et al. (2017) to measure participants’ responses to their partner’s cell phone usage in the scenario they provided. A five-point Likert scale was used to measure seven factors. Three factors reflected
constructive responses. Relational repair (e.g., “I tried to be more romantic”) consisted of three items; the scale was sufficiently reliable ($\alpha = .909$). The second constructive response was integrative communication, measured with seven items (e.g., “I talked about our relationship”) ($\alpha = .897$). Finally, the constructive response of loyalty was assessed with four items (e.g., “I was patient and waited to see what would happen”) ($\alpha = .765$). Four factors reflected destructive responses. The first was de-escalation, measured by three items (e.g., “I thought about ways to get out of the relationship”) ($\alpha = .770$). Next, distributive communication was assessed by four items (e.g., “I acted rude toward my partner”) ($\alpha = .883$). The third destructive response, revenge, was measured by three items (e.g., “I tried to get back at my partner”) ($\alpha = .889$). Finally, active distancing consisted of three items (e.g., “I gave my partner the silent treatment”) ($\alpha = .667$). The original scale included 39 items, but the 27 selected seemed most pertinent to the focus on cell phone usage. Two items that the original scale did not include but were used in Kelly et al. (2017) were included in the survey. These items were “I said or did nothing” and “Because they used the phone, I used mine too.” Higher scores reflected greater usage of the communicative responses.

**Cell phone satisfaction.** Satisfaction with cell phones in dating/romantic relationships was assessed using an eleven-item, five-point Likert-type scale modified from Miller-Ott et al. (2012) and replicated from Kelly et al. (2017), ranging from 1 (strongly disagree) to 5 (strongly agree). Following Miller et al.’s (2012) approach, the scale was reduced to seven items for data analysis. An example item was “I’m happy with the use of cell phones in our relationship.” A higher score indicated greater satisfaction with cell phone practices in the relationship; the scale was sufficiently reliable ($\alpha = .914$).

**Relationship satisfaction.** A version of the Marital Opinion Questionnaire (Huston, McHale, & Crouter, 1986) was used and replicated from Kelly et al. (2017) to assess relationship satisfaction with romantic partners. The seven-item, five-point semantic differential scale consisted of bipolar adjectives such as happy-unhappy, content-not content, and rewarding-disappointing and included an assessment of global satisfaction; the scale was sufficiently reliable ($\alpha = .848$). A higher score indicated greater relationship satisfaction.

**RESULTS**

The first research question examined to what extent romantic partners perceived cell phone usage behaviors as negative. The results showed that 46.7% of participants reported that their romantic partner had engaged in a cell phone usage behavior during a face-to-face interaction that they viewed as negative at some point in the relationship. For the open-ended question asking participants to elaborate on a recent experience in which their partner had engaged in a cell phone usage behavior viewed as negative, a thematic analysis was conducted to identify themes in the responses. Several themes emerged, which included interference during face-to-face interactions, lack of attention, and entertainment-related usage. These themes are described in further detail in the discussion.

**RQ2a** questioned whether there was a significant difference between individuals’ expectedness of cell phone usage behaviors in public spaces versus private spaces. A paired samples $t$-test was conducted to compare participants’ expectedness scores in the public scenario (at the restaurant) and in the private scenario (at home/apartment). Results indicated that the mean public expected value ($M = 2.87$, $SD = .665$) was significantly greater than the private expected value ($M = 2.64$, $SD = .632$), $t(155) = 5.19$, $p < .001$. In other words, cell phone usage behaviors in public settings were considered more unexpected than cell phone usage behaviors occurring in private settings.

**RQ2b** questioned whether there was a significant difference between individuals’ valence of cell phone usage behaviors in public spaces versus private spaces. A paired samples $t$-test was conducted to compare participants’ valence scores in the public scenario (at the restaurant) and in the private scenario (at home/apartment). The results indicated that the mean public valence value ($M = 2.95$, $SD = .574$) was significantly greater than the private valence value ($M = 2.70$, $SD = .547$), $t(153) = 6.17$, $p < .001$. Thus, cell phone usage behaviors in public settings were viewed as more negatively valenced than cell phone usage behaviors occurring in private settings.

**RQ2c** questioned whether there was a significant difference between how typical cell phone usage behaviors were in public spaces versus private spaces. A paired samples $t$-test was conducted to compare participants’ typicality scores in the public scenario (at the restaurant) and in the private scenario (at home/apartment). The results indicated that the mean public typicality value ($M = 2.98$, $SD = .689$) was significantly greater than the private typicality value ($M = 2.73$, $SD = .642$), $t(150) = 5.20$, $p < .001$. As such, cell phone usage behaviors in public settings were perceived as more atypical than cell phone usage behaviors occurring in private settings.

H1a predicted that the more rewarding a partner was perceived to be, the more positive the valence of cell phone usage behaviors would be rated in public situations. A correlation coefficient was computed between partner rewardingness and public valence. The results of the correlational analysis revealed that the relationship was not statistically significant, $r(184) = .025$, $p > .05$.  

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**Footnotes:**

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5. The authors certify that this study has been carried out in accordance with ethical principles for research on human subjects, including respect for autonomy, beneficence, and non-maleficence.
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H1b predicted that the more rewarding a partner was perceived to be, the more positive the valence of cell phone usage behaviors would be rated in private situations. A correlation coefficient was computed between partner rewardingness and private valence. The results of the correlational analysis revealed that the relationship was not statistically significant, $r(157) = .119, p > .05$.

H2a predicted that cell phone usage behaviors in public spaces were considered more unexpected, negatively valenced, and atypical than the midpoint on the scale measuring expectedness, valence, and typicality. Three, one-sample $t$-tests were conducted to determine whether the mean of the participants’ expectedness, valence, and typicality scores in public spaces were significantly different from 3.00, the scale midpoint. First, the sample mean of 2.85 ($SD = .682$) for public expectedness was significantly different from 3.00, $t(185) = -2.92, p = < .01$. The results rejected the conclusion that cell phone usage behaviors in public spaces are considered more unexpected than expected. Second, the sample mean of 2.92 ($SD = .565$) for public valence was not significantly different from 3.00, $t(183) = -1.85, p = .066$, but it did approach significance. Third, the sample mean of 2.94 ($SD = .703$) for public typicality was not significantly different from 3.00, $t(183) = -1.20, p > .05$.

H2b predicted that cell phone usage behaviors in private spaces were considered more expected, positively valenced, and typical than the midpoint on the scale measuring expectedness, valence, and typicality. Three, one-sample $t$-tests were conducted to determine whether the mean of the participants’ expectedness, valence, and typicality scores in private spaces were significantly different from 3.00, the scale midpoint. First, the sample mean of 2.64 ($SD = .635$) for private expectedness was significantly different from 3.00, $t(156) = -7.03, p = < .001$. The results supported the conclusion that cell phone usage behaviors in private spaces were considered more expected. Second, the sample mean of 2.70 ($SD = .543$) for private valence was significantly different from 3.00, $t(156) = -6.96, p = < .001$. The results supported the conclusion that cell phone usage behaviors in private spaces were considered more positively valenced. Third, the sample mean of 2.73 ($SD = .641$) for private typicality was significantly different from 3.00, $t(152) = -5.16, p = < .001$. The results supported the conclusion that cell phone usage behaviors in private spaces were considered more typical.

H3 predicted that the longer the length of the romantic relationship, the more constructive communicative responses would be used. A correlation coefficient was computed between length of romantic relationship and constructive communicative responses. The results of the correlational analysis revealed that the relationship was not statistically significant, $r(64) = .144, p > .05$.

H4 predicted that the higher one rates their cell phone satisfaction in their romantic relationship, the more constructive communicative responses would be used. A correlation coefficient was computed between cell phone satisfaction and constructive communicative responses. The results of the correlational analysis revealed that the relationship was not statistically significant, $r(35) = .194, p > .05$.

H5 predicted that the higher one reports their relationship satisfaction, the more constructive communicative responses would be used. A correlation coefficient was computed between relationship satisfaction and constructive communicative responses. The results of the correlational analysis revealed that the correlation was statistically significant, $r(49) = .429, p < .01$. The results support the hypothesis that the higher the relationship satisfaction, the more constructive communicative responses are used.

H6 predicted that higher cell phone satisfaction is related to higher relationship satisfaction. A correlation coefficient was computed between relationship satisfaction and constructive communicative responses. The results of the correlational analysis revealed that the correlation was statistically significant, $r(73) = .506, p < .001$. The results supported the hypothesis that greater cell phone satisfaction is related to higher relationship satisfaction.

**DISCUSSION**

The purpose of the present study was to expand on previous research (Miller-Ott et al., 2015; Kelly et al., 2017) in order to examine expectancies that romantic partners have of cell phone usage during face-to-face interactions, how the expectancy violations are managed, and whether violations detracted from the overall perceived quality of the romantic relationship in a younger, more traditional college-aged participant sample. Analysis revealed three overarching implications of the data, which include: (a) public versus private cell phone behaviors, (b) the normalization of cell phone usage behaviors through tolerance, and (c) communicative responses as they related to satisfaction in relationships.

First, overall findings reveal that, among the age group surveyed in the study, cell phone usage behaviors are viewed differently in public settings versus private settings. Specifically, romantic partners perceived cell phone usage behaviors differently in public spaces as compared to private spaces. As research has shown, the context of the face-to-face interaction is an important factor in evaluating expectedness, valence, and typicality of cell phone usage behaviors (Kelly et al., 2017). Research questions 2a, 2b, and 2c questioned whether there was a significant difference between individuals’ expectedness, valence, and typicality of cell phone usage behaviors in public spaces.
versus private spaces. Results from a series of paired samples t-tests revealed that there was a significant difference in public and private expectedness values, public and private valence values, and public and private typicality values. Cell phone usage behaviors in private settings were considered more expected, positively valenced, and typical than cell phone usage behaviors in public settings. In other words, when romantic partners engaged in cell phone usage behaviors in private settings, such as hanging out at home, they were more expected than when romantic partners engaged in cell phone usage behaviors in a public setting, such as on a date at a restaurant. This research supports previous findings (Miller-Ott & Kelly, 2015) that dating partners consider cell phone usage behaviors enacted in more private settings, such as hanging out at home, as more acceptable because they are perhaps more informal and less of the focus is placed on the interaction between partners alone. In contrast, in the public setting like a date, there is more emphasis on the face-to-face exchange of conversation between romantic partners. Furthermore, the scenario in the public setting, in which the romantic partners were asked to imagine that they were on a date with their partner at a restaurant, is considered a context in which individuals expect greater attention (Kelly et al., 2017). Therefore, any cell phone usage behaviors would consequently be perceived as more unexpected, negative, and atypical. Additionally, in public contexts especially, any inappropriate behaviors may threaten the relationship-specific face shared by both partners and can be embarrassing for both partners, resulting in decreased relationship satisfaction (Hall et al., 2014). For example, if a romantic partner is focused on their cell phone rather than on their partner during a date, it may communicate the message to others that the individual does not want to pay attention to their partner or does not care enough to pay attention to what the other person has to say. Future research is warranted to examine cell phone usage behaviors in public settings in regards to facework, and how romantic partners negotiate their own individual face as well as relationship-specific face in both public and private settings.

A second major finding reveals that due to the amount of tolerance that romantic partners have built surrounding the use of cell phones in both public and private settings, cell phone usage behaviors have become alarmingly normalized amongst young adults. These results add to previous conclusions that cell phone usage behaviors while spending time with romantic partners is not unexpected and therefore, is not considered an expectancy violation (Kelly et al., 2017). In other words, cell phone usage behaviors have come to be actions that are expected during face-to-face interactions in romantic relationships. H2a predicted that cell phone usage behaviors in public spaces (such as a date in a restaurant) are considered more unexpected, negatively valenced, and atypical. Although the results from the one-samples t-test for valence and typicality in public spaces were not statistically significant, the results from expectedness rejected the hypothesis that cell phone usage behaviors in public spaces are considered generally more unexpected. As such, cell phone usage behaviors in public spaces are not considered unexpected. In fact, the overall results demonstrated that romantic partners perceive cell phone usage behaviors in public settings as neither unexpected nor expected, neither positive nor negative, and neither typical nor atypical. Participants were simply indifferent, or neutral, to the behaviors. For example, the cell phone usage behaviors that were perceived as completely expected were rated as a 1.00 and the cell phone usage behaviors that were perceived as completely unexpected were rated as a 5.00. The mean expected value for public settings was 2.87, and the mean expected value for private settings was 2.64. Both values, which are significantly close to the scale midpoint value of 3, show that participants did not consider the cell phone usage behaviors as more unexpected or expected, but rather were indifferent to the behaviors. These findings support the notion that cell phones have become integrated into individuals’ lives (Bayer, Campbell, & Ling, 2016). Tolerance for cell phone usage behaviors has become so high that the cell phone usage behaviors that romantic partners engage in have become normalized (White, 2015).

Findings from how cell phone usage behaviors were perceived in private settings further support the idea that cell phone usage behaviors are not considered unexpected (Kelly et al., 2017). H2b predicted that cell phone usage behaviors in private spaces (such as hanging out at home) were considered more expected, positively valenced, and typical. Results from a series of one-samples t-tests indicated that the hypothesis was fully supported, meaning that participants viewed cell phone usage behaviors in private settings as slightly more expected than unexpected, slightly more positive than negative, and slightly more typical than atypical. However, similar to the cell phone usage behaviors in public settings, participants were overall generally indifferent to these behaviors, which again suggests the idea of the normalization of the use of cell phones in interactions.

The results indicating that cell phone usage behaviors are not considered expectancy violations were supported by the finding that only 47% of participants reported that their romantic partner had engaged in a cell phone usage behavior during a face-to-face interaction that they viewed as negative. Interestingly, though, for the percentage of participants who did report their partner had engaged in a negative cell phone usage behavior, the open-ended responses were full of annoyance and frustration. This suggests that although individuals are still bothered by cell phone usage behaviors, they have become so normalized in American society that individuals simply tolerate the
behaviors, which becomes problematic. The first research question explored the extent that romantic partners perceived cell phone usage behaviors as negative. Three consistent themes emerged from the open-ended responses: interference during face-to-face interactions, lack of attention, and the downfall of entertainment.

**Interference during face-to-face interactions.** The first theme was overwhelmingly present, with the majority of participants discussing situations in which they were in the middle of engaging in a face-to-face interaction with their romantic partner when their partner decided to use their cell phone. Participants were clearly frustrated and upset by their partners’ behaviors, often times expressing how the behaviors negatively affected the interactions. This theme supports past research from Przybylski and Weinstein (2012), Thornton et al. (2014), and Misra et al. (2016), which stated that the presence of mobile phones can negatively interfere with human relationships. One participant stated:

We were out getting Denny’s when we first started dating…we were having a nice conversation and I was into it. When she received a text though, she heard her phone buzz and she stopped talking to me to pull it out and respond to the text. It kinda ruined that conversation and annoyed me…

Another participant stated that she “was having a serious conversation with my romantic partner at home and he pulled out his phone mid-conversation to respond to a text. I was upset because it seemed to undermine the conversation we were having.” Yet another participant complained that their partner “gets a lot of texts from his workplace and responds to every one-no matter what we are doing. He doesn’t put his phone away because he is afraid he will miss something-even at church.” The need for individuals to constantly have their cell phones at their fingertips supports previous research which highlights the conflict individuals feel between the expectation of perpetual availability in the individual’s social network and expectations romantic partners have for behavior during face-to-face conversations (Miller-Ott & Kelly, 2015).

**Lack of attention.** The second theme, lack of attention, was also pervasive throughout participants’ responses, supporting research from Thornton et al. (2014) indicating that the presence of the cell phone serves as a frequent distractor and often results in attentional deficits that become problematic in relationships. With this particular study, a large percentage of participants identified as being in long-distance romantic relationships (40.2%), and many expressed their excitement at finally getting to spend quality time with their partners and instead having to deal with negative cell phone usage behaviors. One participant stated:

My boyfriend and I only see each other every other weekend…it’s important we use that time positively!

We were getting food and as we were eating he went on his phone during the conversation. I just thought it was rude that he wasn’t paying attention in the conversation so I stopped talking.

Another participant shared their annoyance, stating:

She was on her phone when I was trying to have a conversation with her and I was not getting the attention that I wanted. I told her that I was trying to have an important talk and that I wanted her undivided attention. She got a little upset and was not completely willing to stop but did so to make me happy.

**Entertainment-related usage.** Many participants expressed their annoyance when their romantic partners engaged in cell phone usage behaviors relating to entertainment purposes, including playing games on their phones, watching videos, and checking social media. The high frequency of cell phone usage behaviors that are entertainment-related supports previous research from Kelly et al. (2017) which concluded cell phone usage described as entertainment appeared to be perceived as generally more negative than other behaviors. One participant revealed how detrimental the behavior was to the interaction, discussing how “he checks a lot of social media for sports news/games. He does it so frequently that it gets in the way of communicating.” Participants revealed situations in which entertainment-related cell phone behaviors interfered with intimacy, with one individual stating that “we will be lying in bed before sleeping and he will start playing a game on his phone. It is inconsiderate and distracting and doesn’t allow for a conversation.” Some of the kinds of inappropriate cell phone usage behaviors that participants revealed were surprising, with one participant even stating, “At my family event, we were praying before we ate. Instead of closing his eyes, he was playing games on his phone.”

From the open-ended data, it is clear that individuals are bothered by cell phone usage behaviors. However, numerical results from the survey showed that participants were relatively indifferent to, or even expected, these kinds of behaviors to occur. Why, then, do individuals tolerate these behaviors? This study suggests that among college-aged students, cell phone usage behaviors, and the cell phone itself, has become so integrated into individuals’ lives that cell phone-related behaviors have become normalized in everyday life. This idea speaks volumes about the culture as being one that is becoming increasingly technology-dependent and technology-oriented.

The third major implication of this research revealed the ways in which romantic partners use their cell phones and respond to expectancy violations and how it contributes to the overall perceived relational satisfaction in romantic relationships. The fifth hypothesis predicted that the higher the relationship satisfaction, the more
constructive communicative responses would be used in response to expectancy violations. The hypothesis was supported, meaning that romantic partners with higher levels of relationship satisfaction tended to use more constructive communicative responses in response to negative cell phone usage behaviors. Kelly et al. (2017) suggested that it would be fruitful to examine the “potential range of communicative responses and variables that predict reactions” (p. 636). The current study suggests that one predictor of communicative responses is the level of relational satisfaction in the romantic relationship. In other words, couples who are more satisfied in their relationships tend to use more constructive communicative responses, engaging in behaviors that convey loyalty (e.g., “I was patient and waited to see what would happen”), relational repair (e.g., “I tried to be more affectionate”), or integrative communication (e.g., “I talked about our relationship”) rather than destructive responses, such as engaging in revengeful behaviors or active distancing oneself from the interaction. Overall, in response to partners’ negative cell phone behaviors, participants tended to utilize integrative communication strategies, in which they talked to their partner and shared their feelings.

Additionally, higher levels of cell phone satisfaction were related to higher levels of relational satisfaction. This information is consistent with Kelly et al.’s (2017) research which found that cell phone usage when romantic partners are spending time together is related to relational satisfaction. Keeping in mind the idea that cell phone usage behaviors have become normalized, previous research suggests that this normalization leads to the development of internalized norms regarding cell phone use between romantic partners (Hall et al., 2014). Hall et al. build on previous research that examines the relationship between cell phone and relational satisfaction, finding that the more individuals saw themselves and their partners adhering to their own internalized norms, the more they liked their partners. Furthermore, the more that the romantic partners followed their internalized norms in public, the less they felt that their cell phones interfered with their relationship and the more satisfaction they felt from the relationship.

Curiously, the results from H1a and H1b revealed that there was no statistical significance between partner rewardingness—or, the amount of satisfaction that romantic partners provided—and valence of cell phone usage behaviors in both public and private settings. This means that, in both the public and private scenarios, in rating how positive or negative a cell phone usage behavior was perceived to be, the perceived rewardingness of romantic partners did not matter statistically. These findings differ from previous results from Kelly et al. (2017), which found that rewardingness of the romantic partner impacted valence perceptions, with participants viewing the cell phone behavior of more rewarding partners to be less negative. This may be due to the general finding that no matter what the behavior or scenario, participants were generally indifferent to all cell phone usage behaviors, and rated them as neither significantly positive nor significantly negative.

Collectively, the current study expanded upon previous research to uncover changing American culture through the integration of cell phones in romantic relationships. Results highlighted the difference in perceptions of cell phone behaviors in public settings in comparison to private settings, the normalization of cell phone usage behaviors through higher tolerance, and communicative responses to violations as they related to satisfaction in relationships. It can be concluded that cell phone usage behaviors are generally no longer considered unexpected, and therefore are not considered expectancy violations. Participants’ higher tolerance to cell phone behaviors becomes problematic when individuals simultaneously report being bothered by such behaviors. The current study provides valuable insights into the impact of cell phones on romantic relationships.

**LIMITATIONS AND FUTURE RESEARCH**

The conclusions of the study need to be considered in light of the limitations. First, the population of individuals who participated in the study was overwhelmingly homogenous, with 91% of participants identifying as White/Caucasian, 71% female, and 79.5% in an exclusive relationship. The study would benefit from surveying a more diverse population with a wider variety of identities represented. Furthermore, the survey results showed that the majority of participants were highly satisfied in their romantic relationships. While relational satisfaction is not a bad thing, it would be fruitful to survey a wider variety of relationships in regards to relational satisfaction to see how the results might differ or to examine the role of the cell phone in those relationships. Another limitation was the length of the survey. The survey took participants approximately 32 minutes to complete, with many participants beginning the survey but not finishing it in its entirety. It would be beneficial to condense the survey questions to see whether completion rates would increase, which would then result in a richer, more complete data set for analysis.

Although this research gave meaningful insights to the impact of the presence of cell phones in romantic relationships, the current study calls for future research into the influence of cell phone usage behaviors on face-to-face interactions. Specifically, it would be fruitful to examine the impact of cell phone usage between romantic partners using a qualitative methodology, with a focus on private settings as compared to public settings due to the importance of the context in which the cell phone usage behavior occurs (Kelly et al., 2017). Allowing romantic
partners to elaborate on their experiences in an interview or focus group setting would result in a more in-depth analysis. Interview questions could focus on both scenarios in a private setting and in a public setting and how participants might view cell phone usage behaviors differently based on the context. Questions could also focus on the normalization of cell phone usage behaviors and the integration of the cell phone into daily lives. For example, if participants consider behaviors as expected, yet are bothered by them, why do they then tolerate those behaviors and allow them to continue to occur? Furthermore, do participants themselves engage in the same behaviors that bother them? It would be beneficial to examine cell phone usage behaviors that participants themselves engage in through a type of self-reflection. Additionally, the current study warrants future research on examining what behavioral norms romantic partners have, if any, regarding cell phone usage between partners. It would be fruitful to interview individuals on their perceptions of “cell phone etiquette” in American culture and what kinds of behaviors are considered acceptable in the context of romantic relationships from a social constructionist lens.

CONCLUSION
The purpose of this research was to explore expectations that traditional college-aged romantic partners have of cell phone usage during face-to-face interactions, how expectancy violations are managed, and whether violations are related to the overall perceived quality of the romantic relationship. Statistical results indicated that individuals were generally indifferent to cell phone usage behaviors engaged in by their romantic partners; henceforth, cell phone usage behaviors were more expected than unexpected and were not seen as expectancy violations in public settings or private settings. Cell phone usage behaviors in public settings were viewed as more unexpected, negatively valenced, and atypical than cell phone usage behaviors in private settings. Additionally, increased cell phone satisfaction was related to increased relational satisfaction, and individuals who utilized more constructive communicative strategies to respond to negative cell phone behaviors reported higher relational satisfaction, as well. Findings indicate that the cell phone has become so integrated into American culture that cell phone usage behaviors have become normalized. The study brings to light the question of what is considered acceptable “cell phone etiquette” in today’s culture and to what extent romantic partners tolerate the cell phone usage behaviors that frequently occur during face-to-face interactions.

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