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**“CAN YOU HEAR ME NOW?”: THE PARADOXES OF TECHNO-INTIMACY VIA  
THE USE OF PERSONALIZED COMMUNICATION TECHNOLOGY IN PUBLIC**

by

**KATHLEEN M. CUMISKEY**

**A dissertation submitted to the Graduate Faculty in Psychology  
in partial fulfillment of the requirements for the degree of Doctor of Philosophy,  
The City University of New York**

**2003**

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This manuscript has been read and accepted for the Graduate Faculty in the Social-  
Personality Psychology Sub-program in satisfaction of the dissertation requirement for  
the degree of Doctor of Philosophy.

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**Abstract****“CAN YOU HEAR ME NOW?”: THE PARADOXES OF TECHNO-INTIMACY VIA  
THE USE OF PERSONALIZED COMMUNICATION TECHNOLOGY IN PUBLIC**

by

Kathleen M. Cumiskey

Adviser: Distinguished Professor Michelle Fine

The intent of this dissertation is to present a social psychological approach to studying the psychological impact of public cell phone use on social interactions. Two surveys were administered to 171 students from the College of Staten Island (CUNY). In one version of the survey, half of the participants were asked to respond to questions related to their own cell phone use in public. The other half of the participants were asked to respond to the same set of questions, yet in this version, the items pertained to the public cell phone use of others.

As predicted, a strong correspondence bias was found between the attributions made about one's own cell phone use in public and the public cell phone use of others. The results of the statistical analyses are in accordance with the basic tenets of correspondence bias. When asked to make causal attributions as to why people have cell phone conversations in public, subjects were more likely to make dispositional attributions in relation to the behavior of others than attributions related to situational constraints. Participants also committed the self-serving bias in that they favored situational attributions over dispositional attributions to explain their own use of cell

phones in public. Participants judged their own behavior more in accordance with social norms of public behavior than the behavior of “other people”.

There were significant differences in the emotional responses of participants to other people’s cell phone behavior in public in comparison to their emotional responses to their own public cell phone conversations. Participants reported that they experienced a negative reaction to other people’s cell phone use in public. When asked about their own cell phone use in public, participants reported more positive responses. These differences in emotional ratings in conjunction with the self-other bias in responses could indicate participants’ belief in the intentionality of the actions of other people. A qualitative analysis of participants’ stories about public cell phone use was completed to further investigate the quantitative results of this study.

## Acknowledgements

Words cannot express the amount of appreciation that I have for all those people who have made an impact on me in my scholarly development. I am emerging successfully from my graduate career thanks to the love and support of the following people. Michelle Fine, you are a true inspiration to me. Your belief in me, your passion for justice and fairness, has sustained me from the very first day, thank you. Peter Hegarty, best of friends, twinning and twirling through this life together. Let's go! Helene Clark, your dedication and drive to make me a real scholar and still have fun on the side is much appreciated! Judith Koppersmith, my mentor in every sense of the word, having you by my side, holding my hand, makes me brave, I hope I can return the favor. Melissa Kuperman, best friends forever and ever. To my mother, Mae Cumiskey, who has taught me that the most important thing in life is to follow your heart's desire, despite the odds and conventions. And of course, to my love, (soon to be wife), Robin Garber, who is like the wind (and so wild is the wind).

Thank you to my newcomers, Susan Opotow and Joan Greenbaum. I hope that I have given your work its due. Thank you for getting on this whirlwind ride with me. I hope that we can continue our collaboration.

This work was done with the heart and spirit of those who I have lost along the way who I now carry with me in everything I do. Your loss/presence is felt so deeply and profoundly that I thank all of you too. E.J. (my spirit), Daddy (my determination), Grandma (my humor), Brian (my peace), Richard (the magic), and Anya (my fire). Thanks for remaining and reminding me of everything, always, everyday.

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## **Introduction**

It has now become commonplace in most urban public spaces to overhear the cell phone conversations of other people. A recent study has shown that people find other people's cell phone use in public places to be annoying (Ling, 2002). When someone's cell phone rings in public that person is often looked upon as being rude and disruptive. If the person takes the call and proceeds to talk loudly, major agitation has been observed in those around the cell phone user. The observers' body language changes and becomes withdrawn. Sometimes nonverbal cues are given to indicate discomfort, disapproval or distress (Ling, 2002). The use of cell phones in public space appears to disturb and disrupt the flow of public space and of face-to-face interactions whether they are between strangers or acquaintances. When one is the cell phone user, given the response of others who are witnessing their behavior, one is complicit in violating the social expectations of public behavior. Inherent in the positioning of either being a public cell phone user or an observer of public cell phone use is a difference or bias in how people explain other people's cell phone use in public in comparison to their own use. This dissertation examines the "techno-intimacy paradoxes" that surround public cell phone use and its impact on how people conceptualize norms of public cell phone behavior by utilizing classic attribution theory from the study of social psychology.

### *Personalized Communication Technology and "Presence" in Public Space:*

The term "personalized communication technology" is used in this dissertation to describe any technology that is geared toward the mobile personalized communication needs of the individual. Such devices include cell phones, personal data organizers, laptops and other personal hand-held mobile data systems. This type of communication

technology is characterized as “personalized” because these devices are manipulated and tailored to incorporate each individual’s personal information into them. This research will focus mainly on public cell phone use.

Today, six major service providers dominate the market for cell phone subscription. In March of 2002, Scarborough Research, a leading market research firm, surveyed 200,000 adults over the age of 18, to find that approximately 62% of all Americans now have cell phones. This is a 29% growth in cell phone ownership since the year 2000 (RCR Wireless News, 2002). All six cell phone service providers give users the capability of accessing the Internet via their cell phones (Yahoo! Internet Life, 2002). Subscribers' increased reliance on their cell phones is beginning to make landlines obsolete. The additional integration of the personalized communication technologies of emails and text-based messaging into hand held devices is fueling the development of a wireless world and changing how we imagine communication. Rituals around the use of the telephone have changed. It is no longer places that are being reached by a phone call; it is the person carrying the device that is being contacted. In some cases the person is not only being contacted, but also "found". Equipped with a Global Positioning System or GPS, all cellular handsets have the capability of locating your position within about 100 meters. The FCC has mandated that all handsets be equipped with this "Enhanced 911" technology so that, in case of an emergency, you can be located even if you, yourself, do not know where you are or are unable to indicate your whereabouts. While this new technology may make us feel safer, it has implications for increased concerns related to surveillance, privacy, and commercial application (Yahoo! Internet Life, 2002).

One's social need to be accessible to others and to be able to contact anyone at anytime, anywhere is satisfied through the use of personalized communication technology. Because of the prevalence of cell phones in public space, one can speculate that the portal of entry into the lives of individuals, or one's contact zone, now comes more often (or a greater rate) through calculated and organized portable online services and less through spontaneous face-to-face public engagement. Through the use of personalized communication technology in public, one is never ever alone. As we navigate the physical and social landscape of public space how much of that is interrupted by this type of communication technology and what are the social consequences of these interruptions?

Psychologists, in relation to how people engage with cyberspace, have studied how technology has influenced one's sense of being psychologically "present" (Zahorik & Jenison, 1998; Waterworth & Waterworth, 2001). Researchers in cyber-psychology have investigated the ways in which people, while physically present in one space feel as though they are psychologically present in cyberspace when logged on to the Internet (Reeves & Nass, 1996; Markham, 1998). La Rose et al. (2001) suggested that it is a mistake to assume that face-to-face interaction is superior to those interactions that go on online and that we need not "neglect the possibility of hyperpersonal online interactions that may be more intimate than their offline counterparts" (Web document). McGerty (2000) stressed that, instead of thinking of online life and offline life as being two separate spheres, we should consider that Internet users present themselves online as they do offline. "What we really need to know is how the 'real' and the 'virtual' constitute each other... as the two realms are not distinct and theory should not pretend that they are by

disregarding the fact that an individual can never be online without being offline too" (McGerty, 2000, p. 896). The distinctions between online and offline contexts are becoming increasingly blurred. The realms of being online versus offline are less distinct than originally thought, especially when one is moving through physical space while being online.

Understanding the use of cell phones in public provides us with an example of how the virtual and actual constitute each other. The cell phone user, while present in public space, with the appearance of being "offline", is still connected to the virtual via the handheld device. While it may be true that we can never be online without being offline, is it now not also true that we can not be offline without in some way being online as well (Riva, 2001)? To date, no research has been done on how these factors related to psychological presence and technology impact how people function in public while using handheld devices. The use of handheld devices while in public, at the very least, splits users' attention between where they are physically and the demand of attention that the technological device commands (not to mention what the actual interaction requires, i.e. talking or texting). This mode of communication requires no interaction with those in one's immediate environment. In fact, communication with remote others via the use of the cell phone often takes precedence over face-to-face communication. This dissertation will use self-report around public cell phone behavior to investigate social psychology's contribution to understanding the role technology plays in social interaction.

*Attributional biases and social interaction in public.*

The central tenet of the study of social psychology is its focus on the power of the situation within which behavior takes place (Milgram, 1974; Aronson, 1999). Explaining and interpreting the behaviors of others within a social context began with the work of Fritz Heider in 1958. The study of attribution, which arose out of this work, centers on how people make sense of the world around them and how they observe and interpret the behaviors of others (often those in close proximity to the observer) (Heider, 1958). Understanding the influence of situational factors on explaining the behavior of others was the key: observable behavior came to be understood as a function of the person and the environment. (Lewin, 1935). If this interaction between the person and the environment affects how someone behaves, then the ways that others interpret that behavior must also be influenced by the salience of the impact of the situation and the rules governing the social domain of interpersonal interaction.

While there is no one "attributional theory", there are various approaches to the study of social interaction that focus on attributional processes (Gilbert & Malone, 1995; Harvey & Weary, 1981). Most of the research has focused on whether people attribute the behaviors of others to situational factors or to factors related to personality traits of the person being observed, commonly referred to in this research as "the actor". These theories have been studied within social psychology as the ways in which people make errors or are biased in their attribution of others' behavior (Jones & Nisbett, 1972; Taylor & Fiske, 1978; Nisbett, Caputo, Legant & Marecek, 1973; Storms, 1973; Monson & Snyder, 1977). In 1965, Jones and Davis became the first researchers to formulate a hypothesis-testing format for studying attributions. Their formula allowed for a more in

depth look at the interpersonal problems that are created through an observer's attempt to explain the intent of another person's actions. In a pivotal paper, Ross (1977) pointed out that Heider recognized an observer's tendency to attribute the behavior of another person to his or her disposition and not to factors related to the situation. Ross, believing that this bias in judgment was highly prevalent, called it the "fundamental attribution error". Since his first conceptualization of this error, there has been some criticism of the "fundamental-ness" or the prevalence in how people make attributions (Harvey & Weary, 1981; Gilbert & Malone, 1995; Sabini, Siepman & Stein, 2001). However, it is accepted widely in the field that people do have a tendency to overestimate the role that a person's disposition plays in explaining their behavior, and to underestimate the role of the situation in explaining the behavior of others.

Social psychologists have also found that people commit a "self-serving bias". This is the tendency to attribute our successes to our disposition and to explain our failures as being due to situational factors (Aronson, 1999). The self-serving bias appears to be the opposite of the correspondence bias. There is then a paradox of sorts between how we explain the behavior of others compared to how we explain our own behavior. So, what, if any, is the connection between these two attributional biases?

Most of the research done to support the evidence of correspondence bias and self-serving bias has focused on the prevalence of making errors in attribution. Little research has been done on the reasons "why" people commit these errors or how these biases in attribution may be related (Sabini, Siepman, & Stein, 2001). In addition, there has only been tangential connections, or assumptive speculation, as to the social consequences of committing such errors in the judgment of social behavior.

### Factors influencing attributional biases:

It is important to examine the underlying factors that contribute to attributional biases the impact that these biases have on social interaction. What follows is an overview of some of the major findings regarding the social cognitive processes that influence biases in the attribution of behavior.

**Perceptions of situational constraints and personal attitudes:** Alicke, Zerbst, and Loschiavo (1996) framed attributional biases in terms of personal attitudes and constraint magnitude. Constraints are defined as factors that influence and control behavior. Attributional biases can then be explained as errors that observers make in “accounting for the role of constraining forces on behavior” (p. 212). Not perceiving situational constraints is at the core of correspondence bias. According to the theory, people fail to perceive the situational constraints that may be the root cause of others’ behavior and instead they overemphasize dispositional causation. Conversely, with self-serving bias, people may overemphasize situational constraints and de-emphasize dispositional factors in explaining their own behavior.

Personal attitudes toward people who engage in certain behaviors will influence the types of attributions made about that person (Alicke, 1993). Observing an actor engaging in behavior that is consistent with a person’s attitude toward people who engage in that type of behavior, will lead that observer to make dispositional attributions toward the actor regardless of their awareness of situational constraints. For example, if someone holds the attitude that stealing is wrong and that those who steal should be persecuted, they are less likely to pay attention to situational constraints, even if situational constraints are presented to them. Instead they will judge the “thief” as

someone who is wrong and worthy of punishment. They will not look at situational constraints, such as poverty, as being the root cause for the observed behavior.

When attempting to understand our own behavior, we work hard to maintain consistency of self from situation to situation. When amongst others, we want to behave in ways consistent with our attitudes, yet situational factors may impede upon our desire to “go with the flow”. As has been noted by traditional social psychological research, a change in belief about the self only occurs when situational constraints do not provide adequate justification for us to be comfortable with our behavior (Festinger & Carlsmith, 1959). We will discount the importance of our own inconsistent behavior if we have situational constraints available to us to justify our behavior. Our desire to maintain consistency across situations may also be a strategy for avoiding embarrassment when we are aware of others’ presence. In the classic conformity studies performed by Solomon Asch and his colleagues, conformity could be reframed to not only be in response to group pressure but also a strategy for avoiding ridicule (Sabini, Siepmann & Stein, 2001). Committing self-serving bias may be a way in which we are able to indicate the importance of our personal attitudes and sense of self and downplay the ways in which situational constraints impact our ability to express those beliefs and to maintain a consistent self.

**Perceptions of choice and intentionality:** When one relies on situational constraints to explain behavior, the influence of personal choice is diminished. When one believes that external forces control their behavior, then their sense of agency is all but eliminated. For example, you are in the grocery store, and someone in line behind you shoves you. Your first reaction would most likely be to think of the person that

bumped into you as rude or oblivious. However the person that bumped into you may perceive his/her actions as unintentional and beyond their control. Perhaps they "accidentally" shoved into you because their arms were full with groceries or they were trying to avoid knocking someone else over. In the first scenario, the observer is making a judgment that the actor had other alternative behaviors that he or she chose not to perform. The actor may justify her/his behavior by saying, "I had no other choice". Whose perception is more accurate is not as important here as the impression of the actors involved and the perception of the social situation. In short, perceived choice influences the degree to which we interpret the intentionality of behavior. If people perceive an action as intentional, "their praise or blame for it is intensified compared to when they see that same action as accidental" (Malle & Bennett, p. 1).

**Attention, salience, and social expectations:** Observer's attention to behavior and events begins the attribution process. In order for judgment about an event to occur, the perceiver first must attend to it (Green, Lightfoot, Bandy & Buchanan, 1985). Where one's attention is directed becomes the center of what is perceived. The challenges of having your attention split between activities or events may cause you to not perceive all of the constraints involved in the behavior. In addition, when your attention is called to an event, in other words, if a person's behavior is made salient to you, you are more likely to attend to it. Someone may become "socially salient" to you in your immediate context if they are drawing attention to themselves by acting in unexpected ways, by acting out of role, by behaving unusually, or by dominating your visual field (Fiske & Taylor, 1991).

Awareness of information differs between actors and observers (Miller & Ross, 1975). Perspective makes a lot of difference. As actors, our attention is on our own behavior. In the self-reflection process, certain details about the situation may not be reported because the actor does not attend to those factors. Instead, the actor may be more interested in how their behavior fits into their self-concept in an effort to defend themselves against any behavior that may threaten their sense of self (Sabini, Siepman, & Stein, 2001). As observers, people may also be complicit in confirmation bias in that they will seek out and focus on information that is in accordance with their personal attitudes about the actor's behavior. At the same time, they may ignore other factors that better explain the behavior (Snyder & Swann, 1978).

*The social domain of interpersonal interaction in public:*

Erving Goffman believed that all face-to-face interactions were dominated by a set of social rules and scripts that regulated behavior in the public (and private) sphere. In his book, Interaction Ritual: Essays on Face-to-Face Interaction, Goffman (1982) utilized the term "face" to indicate the "positive social value a person effectively claims for himself by the line others assume he has taken during a particular contact. Face is an image of self delineated in terms of approved social attributes –albeit an image that others may share, as when a person makes a good showing for his profession..." (p. 5). A person is said to maintain "face" when they are acting in ways that are consistent with their own understanding of self *and* when that behavior is supported by the others present in the current context. "At such times, (during public social interaction), the person's face clearly is something not lodged in or on (the actor's) body, but rather something that is diffusely located in the flow of events in the encounter and becomes manifest only

when these events are read and interpreted for the appraisals expressed in them” (Goffman, 1982, p. 7). These evaluations of self and other regulate social norms for public behavior and create a dynamic through which actors must negotiate when they “lose face”, or act out of the norm. Is it in regards to the behavior that does not seem consistent with our social expectations that attributional biases occur? Or is the overemphasis of dispositional attributes and the underestimation of the power of situational constraints, in the judging of others’ behavior, a means of policing the boundaries of what is viewed as appropriate and inappropriate public behavior? Does this positioning shift when we are evaluating our own public behavior?

Judging others’ behavior when social expectations are violated:

One of the motivational factors influencing attention during social interactions is the desire to apply social sanctions (Jones & Thibaut, 1958; Green, Lightfoot, Bandy & Buchanan, 1985). The observer must have a confident understanding of what is appropriate behavior in the given context prior to making an attribution about the observed behavior. According to Green, Lightfoot, Bandy & Buchanan (1985): “In making attributions for strangers, expectancies based on the script that governs the behavior and the person schema for the person performing the behavior are important in determining the final attribution” (p. 164). A script is a cognitive guide of behavior that we rely upon in order to know how we are expected to behave in any given context. We learn scripts (also called event schemas) through observation and direct experience. Scripts help us to process social information more quickly. If we have a clear idea of how we are expected to behave, and what to expect upon entering social situations, we

will not get caught up in the minute details of everyday life and will be better able to attend to the task at hand (Abelson, 1981).

Person schemas are how we categorize individuals based on informational cues that are presented to us. Our minds are full of representations of categories of people. We rely on person schemas in order to manage impressions and to help us judge the behavior of others. Thus, when asked to recall the behavior of others, we are likely to report behavior that is consistent with the schema that we have developed for the actors involved (Anderson & Pichert, 1978; Fiske & Taylor, 1991).

When behavior occurs in social situations and the script for that behavior is most salient, observers judge the actor's behavior based on what they think most people would do given the situation. When people are behaving according to the script of the situation then their behavior is attributed to situational constraints (Green, Lightfoot, Bandy & Buchanan, 1985). For example, if someone were to observe someone else eating from a plate that was served to her in a restaurant, and then the observer was asked, "Why is she eating from that plate?" Most observers would respond: "Because she is in a restaurant and that is the plate the server brought to her." When a person acts unexpectedly or not in accordance with the scripts that we have for behavior in that situation, we are more likely to attribute their behavior to dispositional causes and not situational constraints (Jones, Davis, & Gergen, 1961; Green, Lightfoot, Bandy & Buchanan, 1985). For example, if while observing someone in a restaurant, who, upon taking the first bite of food, threw the plate across the room, and then the observer was asked: "Why did she throw that plate across the room?" The observer would most likely respond: "Because she has a violent temper and overreacts".

When the person schema for the actor is more salient than the script for the situation, the observer will make an attribution for the actor's behavior that is in accordance with the person schema for the group of which the actor is assumed to be a part. "The perceiver, as cognitive miser, will use a relevant person schema, such as a group stereotype, as a template for making current attributions to the salient actor" (Green, Lightfoot, Bandy & Buchanan, 1985, p. 166). The affect associated with person schemas impacts the kind of attributions made about the actor. When the schema is viewed positively, then negative behavior is judged as unexpected and positive behavior is expected. When the schema is viewed negatively, then negative behavior is expected and positive behavior is unexpected (Pettigrew, 1979; Sauliner & Perlman, 1981).

Judging our own behavior when we violate social expectations:

When one acts out of the norm, and is observed by others, it is expected that the actor will respond with embarrassment. We are expected to be apologetic and humble when we are "caught" acting out of the bounds of what is socially expected. Yet responding with apologies and rosy cheeks is only one way that people may "save face".

Goffman (1982) explained that when a person is "in face", or acting in accordance with social expectations, then the actor responds to the situation with confidence and assurance. When a person is "out of face", or divergent from the norms of public social behavior, the actor may feel ashamed or inferior and become flustered. It is rare however that this is a long-lived response to being "out of face". Instead, the actor, not wanting to appear "out of face", will employ techniques to "save face" (Goffman, 1982).

Saving face is the process by which the actor attempts to maintain the impression that he or she has not "lost face" (Goffman, 1982). The ways in which we explain our

behaviors to others may represent the means by which we “save face” (Sabini, Siepmann, & Stein, 2001; Parrott & Harre, 1996). Could this explain the social importance of the self-serving bias?

As actors we are expected to not place others in close proximity to us in “face-threatening” situations. We are expected to not behave in ways that may embarrass or threaten the “face” of others. Goffman (1982) explained that actors “[are] expected to sustain a standard of considerateness; [they are] expected to go to certain lengths to save the feelings and the face of others present, and [they are] expected to do this willingly and spontaneously because of emotional identification with others and with their feelings” (p. 10). When a person does not act in accordance with this expectation, the observer assumes that he or she does not have the same “values” as the observer and is worthy of scorn and disapproval.

*Do emotional responses to social situations indicate a belief in intentionality?*

Intentionality is defined as the specific manner in which behavior is performed. A belief in intentionality is a belief that a behavior was performed with an intention and with skill and awareness (Malle & Bennett, 1998). If a behavior is judged as being intentional, then it is seen as being motivated by internal attributes of the actor. People ascribe intentionality, or lack of intentionality, as a means of expressing their evaluation of past or present behavior.

Emotionally responding to a situation is a clear way that observers indicate their approval or disapproval of actors’ behavior (Goffman, 1982). As mentioned previously, if affect biases the judgment of others’ behavior as well as the judgment of one’s own behavior, could measuring one’s emotional response to social interaction be a means for

assessing belief in the intentionality of an actor's behavior? If an observer reacts negatively to the behavior of someone else, could that indicate a belief that the observed behavior was intentional?

*What are the social consequences of believing in the intentional violation of social norms by strangers in public?*

Observers may experience negative emotions because of their dispositional judgments of others' unexpected social behavior. These negative emotions may be in response to their belief in the intentionality of the actors performing the behaviors. This negative emotional response may then provide enough justification for characterizing those who act inappropriately in public as being outside the norm of appropriate behavior.

Those people, who are seen as behaving outside of the norm of social expectations, are often excluded from society. Susan Opatow (1990) states that moral exclusion "occurs when individuals or groups are perceived as outside the boundary in which moral values, rules, and considerations of fairness apply. Those who are morally excluded are perceived as nonentities, expendable, or undeserving" (p. 1). This process of moral exclusion occurs on a continuum from mild to severe. Being excluded from mainstream society then allows those within the mainstream to view the excluded one as different and therefore not deserving of "normal" participation in the group's activities. Goffman (1982) stated that an actor fears "losing face" because "the others may take this as a sign that consideration for his feelings need not be shown in the future" (p. 7). Feelings of conflict with and disconnected-ness from unlike others contribute to the likelihood of moral exclusion. If one feels disconnected from another, or angry, because

that “other” is acting outside the bounds of what is seen as appropriate behavior, then that “other” is psychologically and often physically distanced from the observer. This process of “othering”, or moral exclusion, not only establishes the boundaries between in-groups and out-groups but also reinforces norms and “protects” the observer from the vulnerability of being excluded him or herself. As mentioned previously, moral exclusion can be measured in degrees from mild to severe. The behavioral correlates on this continuum range from chastisement for an individual's inappropriate or rude behavior to exile and genocide. Understanding the function of the mild end of this continuum is most relevant to the theoretical understanding of the social consequence of violating social norms in everyday social interactions. If an actor is viewed as intentionally violating the social norms of public behavior, they suffer the social consequence of receiving chastisement in actions or with words from those in close proximity. This sort of response is intensified the more the observed behavior is view as being intentional (Malle & Bennett, 1998).

*What are the social consequences of believing in the non-intentional violation of social norm, as it relates to one 's own behavior in public?*

As human beings, we take credit for the good and deny the bad. We are motivated to be biased in our explanations of our own behavior in an effort to protect and maintain our self-concept, our self-esteem and our “face” (Aronson, 1999). Our desire for consistency of self is at the heart of understanding self-schemas. We tend to manage information about ourselves in the same ways that we manage information about others (Fiske & Taylor, 1991). When asked to recall details pertaining to our own behavior, we

are more likely to recall information that is consistent with how we think about ourselves and our personality traits (Markus, 1977).

We want to be accepted by others and to gain all the benefits of being considered “part of the group”. When we are “caught” by others engaging in behaviors in which we “lose face” or threaten the “face” of others, we are expected to respond in a way that acknowledges our “bad behavior” to others and displays that we are truly repentant for such violations. Yet why is it that we tend not to take responsibility for our own “bad behavior”? How would an actor explain their conscious engagement in behavior that is judged as inappropriate by observers?

In order to “save face”, the actor may deny intentionality. He or she may admit to the behavior but in turn attribute the reasons for it to external forces rather than represent the behavior as emerging from her or his “true self”. Hence the self-serving bias. Lack of intentionality then indicates a belief that the actor had no choice in the matter, that their behavior was a direct consequence of some outside situational constraint.

In addition, the actor may discount the seriousness of the social violation and indicate that their behavior was not outside the realm of appropriateness. If “losing face” threatens one’s ego and sense of self, then traditional psychological defense mechanisms may be utilized when someone is forced to recognize the consequences of committing face-threatening acts in public. An actor may deny that they engaged in the reported behavior or may rationalize that they had a legitimate reason for doing so.

Thus far it has been established that assessment of self happens in conjunction with judgment of others. We come to understand what is acceptable public behavior through observing others. In our desire to be considered part of one's community, we

come to understand ourselves in relation to others. Does this indicate a lack in the boundary between self and other? Psychology has a sincere faith in the "individual". Goffman's theorizing around face-to-face interaction, while focused on the dramatic analogy of "on-stage" behavior, also acknowledged the individual's life spent "off-stage". The romance of being off-stage lies in an individual's ability to escape the scrutiny of the social domain of face-to-face interaction (Goffman, 1982). The ability to escape the pressures of social interaction and to be free of any impediment to one's desire is a fantasy. This realm, out of the sight of others, characterizes our understanding of private space. A desire to protect private space may also fuel the distinction between what are acceptable public behaviors and what are acceptable private behaviors.

*A right to privacy (in public).*

The notion of a "right to privacy" originated in the U.S. from common law cases and was defined as an individual's right to determine, "ordinarily, to what extent his thoughts, sentiments, and emotions shall be communicated to others" (Brandeis and Warren, 1890, as quoted in Freedman, 1987, p. 1-2). Through this definition, Brandeis and Warren broadly defined privacy as an individual's right to be "let alone" (Parent, 1983; Freedman, 1987). In 1928, Brandeis was afforded the opportunity to apply this definition to a court case that involved the legality of wire-tapping. In this case, Brandeis argued that the right to be let alone "is our most valued entitlement" and to "safeguard it, every unjustifiable government intrusion upon the privacy of the individual must be condemned" (Parent, 1983, p.341). Laws were then designed to protect the peace of mind of individual citizens by interference from others, the government and society. The fundamental aspect of this definition of privacy is the ability of one to be able to become

separate from society (Bazelon, 1977; Parent, 1983). The right to privacy is seen as "condemning unwarranted boundary crossing or intrusions upon personal space" with the U.S. Supreme Court viewing it as "condemning any unwarranted government intrusion into matters that fundamentally affect a person" (Parent, 1983, p. 342). This right to privacy seems to protect and enforce autonomy. In the most ideal rendering of this concept, a right to privacy appears to be a right to one's personal identity and the right to control to what extent personal information is communicated to others (Parent, 1983; Gerety, 1977; Westin, 1967).

According to Parent (1983), the optimal definition of privacy is "the condition of a person's not having undocumented personal information about himself known by others" (p. 346). By his definition, personal information encompasses facts that pertain to the "person's sexual habits, genital size, income, drinking habits and marital happiness" (p. 346). In 1977, Robert S. Laufer and Maxine Wolfe conducted a study in which they interviewed young people from ages 4 to 19, asking them what privacy meant to them. They found that four meanings emerged. To the 39 young people they interviewed, privacy meant "controlling access to information", but it also meant, "being alone", "no one bothering me" and "controlling access to spaces". Other researchers have found that often the meaning of privacy includes indicators of distance or barriers between "us" and "them" (Margulis, 1977). In this sense, the meaningfulness of the separation of self from society becomes evident. What is common across definitions and meanings of privacy is the importance that individuals place not only on the control of the access of others to personal information, but also the control of input from others or from the environment on the activities of the individual (Margulis, 1977). The barriers between self and other

are negotiated when one spends time in a public place; to a certain degree, we feel as though we have control over who and when others have access to our personal information (especially when we are amongst “strangers” in public). Goffman (1982) would say that we should expect this respect of privacy from others when in a social context.

Intimacy, as studied by psychologists, is a connection created between people when there is a sense of mutual self-disclosure (Sennett, 1976; Erikson, 1968; Descutner & Thelen, 1991). The act of revealing private information about oneself contributes to establishing intimacy (Altman & Taylor, 1973). Yet, unsolicited self-disclosure can disturb the person bearing witness to that behavior. The intricate dance that we do when we interact with strangers in public is based on a tenuous set of movements and gestures that uphold and recognize the space between self and other while respecting the privacy of others.

The laws around an individual's right to privacy emerged also from the study of property rights (Parent, 1983; Margulis, 1977; Freedman, 1987). Two types of properties have been distinguished: exclusive property and non-exclusive property. Exclusive property is private property or property which can be privately owned, occupied and protected by its owner. Non-exclusive property is public property and refers both to the ownership of public space and to private property that is used in public ways (Freedman, 1987). These distinctions define what is public and what is private space and aid in our conception of what is appropriate behavior within each space. Appropriating non-exclusive spaces for one's own exclusive needs is a means of transgressing appropriate

use. Intimate interpersonal interaction in non-exclusive spaces is often prohibited and makes witnesses to that behavior uncomfortable.

*Dissertation Goals:*

If we were to understand correspondence bias and self-serving bias in conjunction with the demands of social interaction, how might this lead to a better understanding of the ways in which we engage in exclusionary processes and the changing and regulation of social norms? Moral exclusion, self-justification, and policing the borders between public and private behaviors, are all processes that intertwine with each other. When an event occurs, we put our schemas and social expectations into play. The event itself causes us to adjust our schemas and justify the how's and why behind any and all public social interaction. So should correspondence bias and self-serving bias only be understood as errors in judgment? Both of these "attributional biases" may not be biases at all but a means through which we participate in regulating the social always as the landscape of public behavior.

The goal of this dissertation is to explore the impact that personalized communication devices, like cell phones, have on face-to-face interaction and the way we conceptualize public cell phone use.

- 1.) When asked to explain the public cell phone behavior of others, do people commit correspondence bias? Do people have a tendency to overestimate the role of dispositional attributes and underestimate the role of situational factors when explaining the public cell phone behavior of others?
- 2.) When asked to explain their own public cell phone behavior, do people commit the self-serving bias? Do people overestimate the role that situational

constraints play in determining their own behavior and under estimate the role of dispositional attributes?

3.) How does understanding these attributional biases in conjunction with each other highlight the process of norm regulation and creation?

4.) What role do emotions play in attributional biases and what do these responses mean in terms of understanding the paradoxical nature of the use of personalized communication technology in public?

When used in public, the close intimate nature of the use of personalized communication technology creates a liminal space in which those who share the space with us are given an opportunity to access personal information about our lives. Bearing witness to this techno-intimacy challenges users and observers to consider what is appropriate “public” behavior. The use of personalized communication technology may redefine the boundaries around personal and public knowledge that then may ultimately change social norms and expectations as well as how we think about the “strangers” who share public space with us. The paradoxes of techno-intimacy lie in moments in which we are at once condemning of how technology is used in public and also complicit in the expansion of its use in public.

## **Method**

This study was conducted in New York City, on the campus of the College of Staten Island. The College of Staten Island is located in the borough of Staten Island and is part of the City University of New York. The College of Staten Island is a commuter campus and the majority of students work either part-time or full-time. There is no on-campus housing; students often live at home with their families. One hundred eighty-four participants were recruited from psychology courses. Seven participants were removed from the sample because they had never owned or used a cell phone. Six additional participants were removed because of incomplete surveys. The total number of participants used in the analysis was one hundred seventy one.

### *Participants.*

The mean age of the participants in this study was 23.7 years old (range = 17 – 56 years old). One hundred twelve participants were female (65.50 %) and 59 were male (34.50 %).

In this sample, 94 participants identified as White (55.30 %), 19 identified as Latino/a (11.20 %), 16 identified as Black/African American (9.40 %), 11 participants identified as Asian (6.50 %), 3 identified as East Asian (1.70 %) and 1 participant identified as Native American (0.60 %). Four participants were from Africa (2.30 %) and 2 participants were from Haiti (1.20%). Twenty-one participants (12.30 %) did not indicate an ethnicity.

All of the participants were from the five boroughs of New York City and Long Island. One hundred forty participants were from Staten Island (82.87%), 20 were from

Brooklyn (11.83 %), 3 were from Queens, 2 were from Manhattan, 2 were from Long Island and 1 was from the Bronx.

Fifty-one participants identified as full-time students (29.82 %), 30 worked in the service/sales industry (17.54 %), 22 worked in the health related/social services field (12.87 %), 22 were office workers (12.87%); 13 had jobs related to education (7.60 %), 8 worked in trade/construction (4.68 %), and 2 were police officers. Twenty-three participants did not respond to the occupation question. Thirty-two participants indicated that they were parents (18.70 %) and one hundred thirty-nine participants were not parents (81.30%). Fifty-six participants reported that they have people in their lives that are dependent on them for their care (33.30 %). One hundred twelve participants responded that they had no dependents (65.50%) and 3 participants did not respond to the dependents questions (1.80%).

Eighty-two participants indicated that they were middle-class (48.8 %), 54 indicated that they were working-class (32.10 %), 24 indicated that they were upper middle class (14.30 %) and 8 indicated that they were upper class (4.80 %). Three participants did not respond to the social class question (1.80 %).

Participants were majoring in a health related field (n=44), a social science field (n=39), education (n=18), business/communications (n=17), science or math (n=16), liberal arts or English (n=14). Twenty participants had not declared their major (11.69 %) and 3 did not indicate a college major (1.8%).

### *Materials.*

Two forms of a questionnaire consisting of 30 questions were used in this study. The “self-survey” contained questions relating to the participant’s own public cell phone

use. The “others survey” questionnaire contained questions relating to other people’s public cell phone use.

Each questionnaire had five sections. For both questionnaires, the first part included items pertaining to the participant’s own cell phone use. Participants were asked to report: 1.) how long they had used their cell phone, 2.) the average number of cell phone conversations they had per day, 3.) three things they liked and 4.) three things they did not like about having a cell phone. Participants next rated how much they liked having a cell phone on a 5-point scale with higher scores indicating higher levels of liking. Participants listed four places where they have most of their cell phone conversations and rated the likelihood that strangers are present in those four places on a 5-point scale ranging from with “1”, “not at all likely” to “5”, “very likely”.

The ten items in the second part of the questionnaire all related to public cell phone use. In the self survey, these items related to the participant’s own public cell phone use and in the others survey, these items related to the public cell phone use of other people. Item 1 required participants to rate on 5-point scale how much they thought that having the ability to make calls in public demonstrated the value of having a cell phone. Items 2-9 pertained to a range of specific public cell phone behaviors. Participants taking the self survey rated these items on a 5-point scale as they related to their own cell phone behavior in public. Participants taking the others survey rated these items on a 5-point as they related to the public cell phone behavior of others. Item 10 required participants to rate the degree to which they believed they used their cell phone in public in the same ways that others do.

The third part of the questionnaire asked participants to rate 22 emotional indicators. In the self survey, participants were asked to rate, on a 5-point scale, the strength of various emotions as they may experience them while on their cell phones in public places. The others survey asked participants to perform the identical task with regard to the emotions they may experience due to other people's cell phone use in public.

Those participants taking the self survey were asked to report why they have cell phone conversations in public. Those participants taking the others survey were asked to report why other people have cell phone conversations in public.

Participants taking the self survey were then asked to relate a story that stuck out in their minds about a time when they had a cell phone conversation in a public place. Those participants taking the others survey were asked to relate a story that stuck out in their minds about a time when they overheard someone having a cell phone conversation in a public place. Participants were then asked to rate on a 5-point scale how difficult it was for people to recall a public cell phone conversation, either their own or others' depending on the survey.

For both questionnaires, part four was the same. These five questions were included to serve as a manipulation check. The first question asked participants to describe the average cell phone user. The second question asked them to indicate how much they are like the average cell phone user. All subjects were asked to rate on a 5-point scale: 1.) how often they observe people using their cell phones in public, 2.) how often they overhear strangers' cell phone conversations in public and 3.) how much they like overhearing other people's cell phone conversations in public.

*Procedure.*

Each participant was asked to read and sign a consent form that informed them of the purposes of the study. They were also informed of their rights and their ability to access their data and additional information after the completion of the study.

Each participant was randomly assigned to either the self or others condition. As a result, eighty-seven participants completed the others survey and eighty-four participants completed the self survey. Each survey took approximately 20 minutes to complete. Upon completion of the survey, participants were debriefed about the objectives of the research study and provided with contact information in the event that they wished to learn more about the study in the future.

## Results

The following results represent the participants as cell phone users and characterize the ways in which cell phone users make judgments about the cell phone use of others in public. The data analyses utilized both a within and between subjects design in order to test the hypotheses set forth in the introduction of this study. The within subjects analyses yielded a profile of participants as cell phone users. The between subjects analyses yielded evidence in support of hypotheses related to correspondence bias.

### *Length of time of participants' cell phone use.*

All participants had some experience with either owning or using a cell phone. One hundred fifty-three of the one hundred seventy-one participants (89.5 %) currently owned and used a cell phone. The average length of time participants have used their cell phone was 32.33 months or 2.69 years. The length of time of cell phone use varied from 2 weeks to 10 years. The median length of time that participants had used a cell phone was 36 months or 3 years.

A General Linear Model (GLM) was performed to determine if there was a significant difference between survey type (self or others), gender, or age category (Under 25 years of age or 25 years and older) in the length of time of participants have used a cell phone. There was a significant main effect for gender in how long participants have used their cell phone ( $F(1, 162) = 6.55; p < .05$ ). Women ( $n = 108$ ) used a cell phone longer ( $M = 34.06, 2.88$  years) than the men ( $n = 55$ ) ( $M = 29.93, 2.49$  years).

There were no main effects for survey type ( $F(1, 167) = 2.63; p = .107, ns$ ) or age category ( $F(1, 167) = .937; p = .335, ns$ ). Those participants under 25 years of age ( $n = 127$ ) had owned their cell phones for an average of 31.21 months, or 2.60 years. Those participants 25 years old and older ( $n = 35$ ) reported owning their cell phones for an average of 35.61 months or 2.69 years. Length of time of cell phone use was not correlated with the age of participants ( $r = .105; p = .184, ns$ ).

In order to do further analyses of participants based on the length of time of cell phone use, they were separated into two categories: those using a cell phone from 0 to 3 years ( $n=113$ ) and those using a cell phone for more than 3 years ( $n=57$ ).

*Average number of participants' cell phone conversations per day*

Participants reported having an average number of 6.76 conversations on a cell phone per day. The number of cell phone conversations per day varied from 0 to 30, with over half the participants having at least 5 conversations a day.

A GLM was performed to compare survey type, gender, age category and length of time of cell phone use using average number of cell phone conversations per day as the dependent variable.

A significant main effect was found for age category ( $F(1, 159) = 4.218; p < .05$ ). Those participants under the age of 25 ( $n = 126$ ) had an average of 7.45 cell phone conversations per day. Those participants 25 years old and older ( $n = 34$ ) had an average of 4.26 cell phone conversations per day. Those participants under the age of 25 had more conversations per day than those participants 25 years and older.

No significant main effect was found for survey type ( $F(1, 160) = 2.32; p = .130, ns$ ). There was no significant main effect for gender in how many cell phone conversations participants had per day ( $F(1, 160) = .017; p = .896, ns$ ).

No significant interactions were found.

*What participants liked about having a cell phone.*

One hundred fifty-five out of one hundred seventy-one participants (90.64%) listed at least one thing that they liked about having their cell phone. These responses were coded individually and then summarized into six more general categories. Four hundred sixteen unique responses were collected. Of those, one hundred forty-five responses (34.86 %) related to the convenience of having a cell phone. One hundred sixteen responses (27.88 %) related to the benefit of having a cell phone in case of an emergency or to increase one's own sense of safety and security. Seventy-five responses (18.03 %) indicated satisfaction with the cell phone's design, specific phone service features and technology (i.e. voice mail and text messaging, access to the internet and free games). Fifty-three responses (12.75 %) indicated that participants liked using cell phones to "keep tabs" on people and to keep in touch with friends, family, and loved ones. Twenty-seven responses (6.49 %) detailed how having a cell phone improved one's personal life and one's social relationships, as well as fostered a sense of independence and personal freedom. Twenty-nine responses (6.97 %) indicated the joy of being easily accessible to others via cell phone.

*What participants did not like about having a cell phone.*

When asked to list three things that they did not like about having a cell phone, one hundred forty out of one hundred seventy-one participants (81.87%) listed at least

one thing that they did not like about having a cell phone. Each response was coded individually and from these responses, six major subcategories were formed. Four hundred seventy-six unique responses were gathered. Of these, three hundred twenty-one responses (67.44 %) related to aspects of the cell phone design that subjects did not like. Eighty-four responses within these three hundred twenty-one (26.17%) related to complaints about high bills and service contracts. Thirty of these responses (9.34 %) related specifically to the hassle of having to charge the phone battery.

Sixty-nine respondents (14.49 %) stated that they did not like being easily accessible to others via cell phone and further remarked that, with a cell phone, one has no excuse not to be available at all times. Sixty-one responses (12.81 %) related to the inconvenience, interruptions and disturbances that having a cell phone creates. Thirteen responses (2.73 %); related to the habits, addictions and other personal problems that participants believe that cell phones facilitate. Ten people (2.10%) mentioned their fear of losing their cell phones. Two people (0.42 %) reported that they could not list anything that they did not like about having a cell phone by responding: "Nothing, I love it".

*How much do participants like having a cell phone?*

Participants rated how much they liked having a cell phone on a five-point scale, with a higher score indicating a stronger liking. The average rating for this item was 4.21.

A GLM was performed to compare survey type, gender, age category and length of time of cell phone use using the rating of how much participants liked having a cell phone.

A significant main effect was found for gender for how much participants liked having a cell phone ( $F(1, 162) = 5.616; p < .05$ ). Women ( $n = 107$ ) reported an average rating of 4.23 and men reported an average rating of 4.16. Women liked having a cell phone more than men did.

A significant main effect for age category was found for how much participants liked having a cell phone ( $F(1, 162) = 8.16; p < .01$ ). Participants under the age of 25 ( $n = 126$ ) reported an average rating of 4.27 and participants 25 years old and older ( $n = 36$ ) reported an average rating of 4.00. Those participants under the age of 25 liked having a cell phone more than participants 25 years old and older.

No main effects were found for survey type ( $F(1, 162) = .608; p = .437, ns$ ) or length of time of cell phone use ( $F(1, 162) = 1.08; p = .301, ns$ ).

There were no significant interactions found.

#### *Where do most cell phone conversations take place?*

The places that were listed first were the places in which respondents had most of their cell phone conversations. For the one hundred fifty-nine participants that responded to this question, 50 (31.44 %) mentioned that most of their cell phone conversations take place in the car. Thirty-two participants (20.15 %) indicated that they occur at home. Twenty-eight participants (17.61%) mentioned that they have most of their cell phone conversations out in public (i.e. "On the street walking", "on public transportation", "at the Mall"). Twenty-five participants (15.72 %) mentioned that most of their cell phone conversations take place at school. Twenty-three participants (14.47 %) indicated that most of their cell phone conversations take place at work.

How likely is it that there are strangers around?

Participants rated the likelihood of strangers being present in the first place where they had most of their conversations using a 5-point scale. The average score for this question was 3.13. Seventy-seven out of 159 subjects (48.40 %), answered with “4” or “5”. Sixty-seven (42.10%) responded with a “1” or “2”. Fifteen participants (9.40 %) responded with a “3”.

A General Linear Model was performed to compare responses to this item by survey type, gender, age category, and how long participants have used a cell phone.

A marginally significant main effect was found for gender for this item ( $F(1, 167) = 3.65; p = .06$ ). Women ( $n = 106$ ) reported an average rating of 3.11 and men ( $n = 52$ ) reported an average rating of 3.13 on how likely it is that strangers are around in the place where they have most of their cell phone conversations.

No significant main effects were found for survey type ( $F(1, 158) = 1.48; p = .225, ns$ ), age category ( $F(1, 158) = .466; p = .496$ ), or how long they have used a cell phone ( $F(1, 158) = .003; p = .953$ ).

A significant interaction was found between gender and age category in participants' perception that strangers are present in the place that they have most of their cell phone conversations ( $F(1, 158) = 9.30; p < .01$ ). Women under the age of 25 ( $n = 80$ ) reported that it was more likely that there were strangers present in the place where they have most of their cell phone conversations ( $M = 3.32$ ) than those women 25 years old and older ( $n = 30$ ) ( $M = 2.55$ ). Men 25 years old and older ( $n = 8$ ) reported that it was more likely that there were strangers present in the place where they have most of

their cell phone conversations ( $M = 4.67$ ) than those men under the age of 25 ( $n = 23$ ) ( $M = 2.93$ ).

There were no other significant interactions found for this item.

*Items comparing the public cell phone behavior of others to participants' own public cell phone behavior.*

In part two of both surveys, participants responded to a series of 10 items that focused on public cell phone behavior. As predicted, when comparing the self surveys to the others surveys using a GLM, 9 out of the 10 questions were statistically significant. Each question was measured on a five-point scale with a higher score indicating agreement. Table 1 indicates the mean responses to each question for the self survey as compared to others survey and the F-values and  $p$ -values for each ANOVA performed that compared these responses.

**Table 1. ANOVA and means table for self vs. other items related to public cell phone behavior.**

Questions from survey		Self	Others	F	Sig.
Calls in public places demonstrates the value of having a cell phone.	Mean	3.54	3.85	0.88	.350
	SD	1.28	.99		
When on cell phone in public place, often unaware of what is going on around.	Mean	2.54	3.48	32.71	.000
	SD	.99	1.01		
Dangerous to use cell phone while driving.	Mean	3.75	4.24	5.064	.026
	SD	1.21	.95		
Can do most things and talk on cell phone at same time.	Mean	3.32	2.88	4.05	.046
	SD	1.08	1.01		
Tends to answer cell phone when rings no matter who is around.	Mean	2.98	4.10	27.36	.000
	SD	1.19	.86		
Tends to answer cell phone when rings no matter what doing.	Mean	2.69	3.81	30.43	.000
	SD	.98	.91		
Only answer cell phone when rings when knows its an important call.	Mean	2.83	2.23	11.66	.001
	SD	1.24	.98		
Depends on cell phone for social life.	Mean	2.85	4.08	18.670	.000
	SD	1.27	.89		
When in a public place and bored, uses cell phone.	Mean	3.18	4.28	30.01	.000
	SD	1.29	.93		
Tend to use cell phone in public place in the same way (others/self) does.	Mean	3.03	3.11	.505	.478
	SD	1.02	1.05		

A General Linear Model was performed to compare responses to the following ten items by survey type, gender, age category and how long participants' have used a cell phone (0 – 3 years and more than 3 years).

**“Calls in public places demonstrates the value of having a cell phone”:**

There was a marginally significant main effect for age category ( $F(1, 167) = 3.30; p = .072, ns$ ) on this item. Those participants under the age of 25 ( $n = 129$ ) agreed more than those aged 25 years or older ( $n = 38$ ) with the item: the fact that cell phone

users can get calls in public places demonstrates the value of having a cell phone (Under 25:  $M = 3.82$ ; 25 years old and older:  $M = 3.37$ ).

No significant main effects were found for this item by survey type ( $F(1, 167) = .88$ ;  $p = .350$ , *ns*), gender ( $F(1, 167) = 1.62$ ;  $p = .205$ , *ns*), or how long participants' have used a cell phone ( $F(1, 167) = 1.61$ ;  $p = .207$ , *ns*).

No significant interactions were found for this item.

“When user gets cell phone call in a public place, user is often unaware of what is going on around them”:

A significant main effect for survey type was found for this item ( $F(1, 167) = 32.71$ ;  $p < .001$ ). Participants agreed that other people are unaware of what is going on around them when on their cell phones in public ( $n = 87$ ;  $M = 3.48$ ), more than they are themselves ( $n = 80$ ;  $M = 2.54$ ).

There were no significant main effects for gender ( $F(1, 167) = 2.40$ ;  $p = .124$ , *ns*), age category ( $F(1, 167) = .333$ ;  $p = .565$ , *ns*), or length of time of cell phone use ( $F(1, 167) = .377$ ;  $p = .540$ , *ns*) for this item.

There were no significant interactions found for this item.

“Dangerous to use cell phones while driving”:

A significant main effect for survey type was found for this item ( $F(1, 167) = 5.06$ ;  $p < .05$ ). In examining the results, participants agreed that it is more dangerous for other people to use their cell phones while driving ( $n = 87$ ;  $M = 4.24$ ) than it is for them ( $n = 80$ ;  $M = 3.75$ ).

A significant main effect for age category was found for this item

( $F(1, 167) = 5.00; p < .05$ ). Participants 25 years old and older agreed strongly that using cell phones while driving was dangerous ( $n = 38; M = 4.21$ ) more than participants under 25 ( $n = 129; M = 3.94$ ).

There was no significant main effect for gender ( $F(1, 167) = 1.69; p = .196, ns$ ) or length of cell phone use ( $F(1, 167) = .61; p = .437, ns$ ).

There were no significant interactions for this item.

**“Can do most things and talk on cell phone at the same time”:**

A significant main effect for survey type was found for this item ( $F(1, 167) = 4.05; p < .05$ ). Participants agreed that they could do most things and talk on their cell phone at the same time ( $n = 80; M = 3.32$ ) more than others could ( $n = 87; M = 2.88$ ).

A marginally significant main effect was found for age category for this item ( $F(1, 67) = 2.81; p = .096$ ). Those participants under the age of 25 ( $n = 128$ ) agreed that cell phone users can do most things and talk on the cell phone at the same time ( $M = 3.16$ ) more than those aged 25 and older ( $n = 38; M = 2.82$ ).

There were no significant main effects for gender ( $F(1, 167) = 1.12; p = .291, ns$ ) or length of time of cell phone use ( $F(1, 167) = 1.53; p = .218, ns$ ).

There was a marginally significant interaction between gender, type of survey, and length of time of cell phone use ( $F(1, 167) = 3.42; p = .066$ ). A one-way ANOVA was performed to determine which interaction was statistically significant. The length of time that males in the others condition have used their cell phone had an effect on the degree to which they agreed that other people can do most things and talk on their cell phones at the same time ( $F(1, 31) = 11.780; p < .01$ ). Males in the others condition who

had used their cell phones for more than three years ( $n = 12$ ) agreed that others can do most things and talk on their cell phones at the same time ( $M = 3.33$ ) more than males who had used their cell phone for 0 – 3 years ( $n = 20$ ;  $M = 2.25$ ).

There were no other significant interactions for this item.

“Answers cell phone in public places no matter who is around”:

A significant main effect for survey type was found for this item ( $F(1, 67) = 27.36$ ;  $p < .001$ ). Participants agreed strongly that other people tend to answer their cell phones in public places no matter who is around ( $n = 87$ ;  $M = 4.10$ ) more than they do themselves ( $n = 80$ ;  $M = 2.98$ ).

No significant main effects were found for gender ( $F(1, 167) = 1.53$ ;  $p = .202$ , *ns*), age category ( $F(1, 167) = 2.06$ ;  $p = .153$ , *ns*), or length of time of cell phone use ( $F(1, 167) = 1.81$ ;  $p = .180$ , *ns*).

There were no significant interactions for this item.

“Answers cell phone in public places no matter what they are doing”:

A significant main effect for survey type was found for this item ( $F(1, 167) = 30.43$ ;  $p < .001$ ). Participants agreed that other people tend to answer their cell phone when it rings no matter what they are doing ( $n = 87$ ;  $M = 3.81$ ) more than they do themselves ( $n = 80$ ;  $M = 2.69$ ).

No significant main effects were found for gender ( $F(1, 167) = 1.64$ ;  $p = .202$ , *ns*), age category ( $F(1, 167) = .687$ ;  $p = .408$ , *ns*), or length of time of cell phone use ( $F(1, 167) = 1.51$ ;  $p = .221$ , *ns*).

There were no significant interactions for this item.

**“Only answer cell phone in public only when they know it is an important call”:**

A significant main effect for survey type was found for this item ( $F(1, 167) = 11.66; p < .01$ ). Participants agreed that they only answer their cell phone in public when it is an important call ( $n = 80; M = 2.83$ ) more than other people do ( $n = 87; M = 2.23$ ).

No significant main effects were found for gender ( $F(1, 167) = 1.37; p = .244, ns$ ), age category ( $F(1, 167) = 1.70; p = .194, ns$ ) or length of time of cell phone use ( $F(1, 167) = .002; p = .968, ns$ ).

A significant interaction was found between survey type and age category ( $F(1, 167) = 5.10; p < .05$ ). Those participants aged 25 and older ( $n = 18$ ) disagreed that others only answer their cell phones in public when it is an important call ( $M = 2.00$ ) less than those under 25 ( $n = 69; M = 2.29$ ). Those aged 25 and older ( $n = 18$ ) agreed that they only answer their cell phones in public when it is important call ( $M = 3.05$ ) than those under 25 ( $n = 69; M = 2.73$ ).

A 3-way interaction between gender, survey type and age category was found ( $F(1, 167) = 5.30; p < .05$ ). Women aged 25 and older and women under 25 years old rated other people's behavior and their own behavior in similar ways on this item. Women aged 25 and older and women under 25 agreed to the same degree that other people do not answer their own cell phones in public only when it is an important call (Women aged 25 and older:  $n = 12; M = 2.17$ ) (Women under the age of 25:  $n = 43; M = 2.14$ ). Women aged 25 and older and women under 25 agreed to the same degree that they tend to answer their cell phones in public only when it is an important call (Women aged 25 and older:  $n = 18; M = 2.95$ ) (Women under the age of 25:  $n = 37; M = 2.89$ ).

Men aged 25 and older and men under 25 years of age differed significantly in their assessment of others as well as their own cell phone use on this item. Men aged 25 and older ( $n = 6$ ) disagreed strongly ( $M = 1.67$ ) more than men under the age of 25 ( $n = 26$ ;  $M = 2.64$ ) that other people only answer their cell phones in public when they know it is an important call. Men aged 25 and older ( $n = 2$ ) agreed strongly ( $M = 4.00$ ) more than men under 25 years old ( $n = 23$ ;  $M = 2.48$ ) that they only answer their cell phones in public when they know it is an important call.

No other significant interactions were found for this item.

“Depends on cell phone for social life”:

There was a significant main effect for survey type for this item ( $F(1, 167) = 18.67$ ;  $p < .001$ ). Participants agreed strongly that other people depend on their cell phones for their social life more ( $n = 87$ ;  $M = 4.08$ ) than they themselves do ( $n = 80$ ;  $M = 2.85$ ).

There were no significant main effects for gender ( $F(1, 167) = .004$ ;  $p = .952$ , *ns*), age category ( $F(1, 167) = .331$ ;  $p = .566$ , *ns*) or length of time of cell phone use ( $F(1, 167) = .838$ ;  $p = .362$ , *ns*).

No significant interactions were found for this item.

“Uses cell phone in public when bored”:

A significant main effect for survey type was found for this item ( $F(1, 167) = 30.01$ ;  $p < .001$ ). Participants agreed strongly that other people tend to use their cell phones in public when bored more ( $n = 87$ ;  $M = 4.28$ ) than they themselves do ( $n = 80$ ;  $M = 3.18$ ).

A significant main effect for age category was found ( $F(1, 167) = 18.270$ ;

$p < .001$ ). Those participants under the age of 25 ( $n = 129$ ) agreed strongly, about the general tendency of cell phone users to use their cell phones in public when they are bored ( $M = 4.02$ ) than those participants aged 25 years old and older ( $n = 38$ ;  $M = 2.84$ ).

No significant main effects were found for gender ( $F(1, 167) = 1.81$ ;  $p = .181$ , *ns*) or length of time of cell phone use ( $F(1, 167) = 1.17$ ;  $p = .281$ , *ns*).

A significant interaction was found between survey type and age category ( $F(1, 167) = 5.65$ ;  $p < .05$ ). Those participants under the age of 25 reported that they were more likely to use their cell phones in public when they are bored ( $n = 60$ ;  $M = 3.57$ ) than those age 25 and older ( $n = 20$ ;  $M = 2.00$ ). Those participants under the age of 25 agreed more strongly than those age 25 and older that other people tend to use their cell phones in public when they are bored. (Under 25:  $n = 60$ ;  $M = 4.42$ )(Age 25 and older:  $n = 18$ ;  $M = 3.78$ ).

No other significant interactions were found.

“Uses cell phone same as me/other”:

A significant main effect for age category was found for this item ( $F(1, 167) = 16.97$ ;  $p < .001$ ). Those participants under the age of 25 ( $n = 129$ ;  $M = 3.29$ ) agreed more strongly than those age 25 and older ( $n = 38$ ;  $M = 2.37$ ) that they used their cell phone in the same ways that others do.

No significant main effects were found for survey type ( $F(1, 167) = .505$ ;  $p = .478$ , *ns*), gender ( $F(1, 167) = 1.64$ ;  $p = .203$ , *ns*) or for length of time of cell phone use ( $F(1, 167) = .646$ ;  $p = .423$ , *ns*).

No significant interactions were found for this item.

*Factor analysis of public cell phone behavior items.*

A factor analysis was performed utilizing the ten items from part two of both questionnaires. As mentioned in the methods section, these eight items pertained to a range of specific public cell phone behaviors. Two significant components emerged.

The first component, with an Eigenvalue of 3.098, contained 5 of the 10 items. Items with an extraction value greater than .500 were used in this component. The five items included in this factor were: a.) When on cell phone in a public place, user is unaware of what is going on around them (.576); b.) Cell phone user answers cell phone in public no matter who is around (.759); c.) Cell phone user answers cell phone in public no matter what they are doing (.806); d.) Cell phone user depends on cell phone for their social life (.758); e.) Cell phone user uses cell phone in public when bored (.655).

The second component, with an Eigenvalue of 1.63, contained 3 of the 10 items. Items with an extraction value greater than .500 were used in this component. The three items in this factor were: a.) Dangerous to use cell phones while driving (.621); b.) Can do most things and talk on the cell phone at the same time (reversed) (-.689); c.) Uses the cell phone same as other cell phone users (reversed)(-.628).

*Creation of "public cell phone rudeness" scale.*

The five items from the first component were combined to create a "cell phone rudeness" scale with a Cronbach's alpha of .7880. The scores on the individual items were added together and then divided by 5, in order to produce more easily interpretable results. The minimum score on this scale was a 1.20 and the maximum score was a 5.00. The overall average for this scale is 3.42. A higher score on this scale would indicate a

perception of public cell phone behavior as being "rude". A lower score would indicate a perception of public cell phone behavior as not being "rude".

*Analysis of "public cell phone rudeness" scale.*

A GLM was created in order to compare the participants' scores on this scale by type of survey, gender, age category, and length of time of cell phone use. A significant main effect for type of survey was found ( $F(1, 167) = 64.11; p < .001$ ). Participants evaluated other people's public cell phone use as more rude ( $M = 3.95$ ) than their own ( $M = 2.85$ ). Table 2 provides the descriptive details of this scale.

**Table 2. ANOVA and means for scale characterizing public cell phone behavior.**

Variable	Condition	N	Min	Max	Mean	F	Sig.
Scale that characterizes public cell phone behavior as rude	Other	87	1.80	5.00	3.95	64.11	.000
	Self	81	1.20	4.60	2.85		
	Overall	168	1.20	5.00	3.42		

A significant main effect for age category was found for this scale ( $F(1, 167) = 5.42; p < .05$ ). Those under 25 years old ( $n = 129$ ) perceived more public cell phone rudeness ( $M = 3.51$ ) than those 25 years and older ( $n = 38; M = 3.13$ ).

No significant main effect was found for gender ( $F(1, 167) = 2.56; p = .112, ns$ ) or length of time of cell phone use ( $F(1, 167) = .000; p = .989, ns$ ).

There was a marginally significant interaction between type of survey and age category ( $F(1, 167) = 2.98; p = .086$ ). Those participants under 25 years of age and those 25 and older evaluated the "rudeness" of other people's cell phone use in public to similar degree (Under 25:  $n = 69; M = 3.98$ ) (25 years and older:  $n = 18; M = 3.86$ ).

Those participants under 25 years old ( $n = 60$ ) evaluated their own public cell phone rudeness slightly higher ( $M = 2.97$ ) than those 25 years old and older ( $n = 20$ ;  $M = 2.47$ ).

There were no other significant interactions for this scale.

*Creation of "attentive public cell phone behavior" scale.*

The three items from the second component were combined to create an "attentive public cell phone behavior" scale with a Cronbach's alpha of .4557. The scores on the individual items were added together and then divided by 3 in order to produce more easily interpretable results. I chose to name this scale the "attentive cell phone behavior" scale because a scoring on the three items combined would indicate a concern for how one uses the cell phone in public and that one's own use is unlike how others use it. Reporting one's concern for the inattentiveness of others and establishing oneself as different from average cell phone user may indicate respondent's belief in their own "exemplary" cell phone behavior. A higher score on this scale would indicate that one believes strongly in the dangers of inattentive cell phone use in public and believes that others do not use their cell phone in the same ways that the user does. A lower score on this scale would indicate a lack of concern regarding the dangers of inattentive cell phone use in public and a belief that others use their cell phone in similar ways to the respondent. The minimum score on this scale was 1.33 and a maximum score on this scale was a 5.00. The overall average for this scale was 3.29.

*Analysis of "attentive public cell phone behavior" scale.*

A GLM was created in order to compare the participants' scores on this scale by type of survey, gender, age category and length of time of cell phone use. A significant main effect was found for type of survey for this scale ( $F(1, 166) = 6.60$ ;  $p < .05$ ).

Participants evaluated other people's cell phone use in public as more dangerous and inattentive ( $n = 86$ ;  $M = 3.43$ ) than their own cell phone use ( $n = 80$ ;  $M = 3.13$ ). Table 3 provides the descriptive details of this scale.

**Table 3. ANOVA and means for scale of attentive public cell phone use.**

Variable	Condition	N	Min	Max	Mean	F	Sig.
Scale measuring attitudes toward dangers of inattentive public cell phone behavior	Other	87	1.67	5.00	3.43	6.60	.011
	Self	81	1.33	4.67	3.13		
	Overall	168	1.20	5.00	3.29		

A significant main effect for age category was found for this scale ( $F(1, 166) = 15.09$ ;  $p < .001$ ). Those under 25 ( $n = 128$ ) were less concerned with the dangers of inattentiveness of public cell phone use ( $M = 3.17$ ) than those aged 25 and older ( $n = 38$ ;  $M = 3.68$ ).

A marginally significant main effect for gender was found for this scale ( $F(1, 166) = 3.09$ ;  $p = .081$ ). Women ( $n = 110$ ) were slightly less concerned with the dangers of the inattentiveness of cell phone use in public ( $M = 3.23$ ) than men ( $n = 57$ ;  $M = 3.37$ ).

No main effect was found for length of time of cell phone use ( $F(1, 167) = .324$ ;  $p = .570$ ).

There were no significant interactions for this scale.

*Emotional response to public cell phone behavior:*

A GLM was performed to reveal the significant differences between the 22 emotional ratings by survey type, gender, age category, and length of time of cell phone use.

Analysis of emotional ratings by survey type (self or others):

Of the 22 emotional factors rated, 14 emerged with significant differences in responses between the two surveys. The eight emotions that were found to not be significantly different by survey were: "amused" ( $F(1, 159) = .000; p = .984$ ); "included" ( $F(1, 159) = 2.49; p = .117$ ); "indifferent" ( $F(1, 159) = 1.80; p = .182$ ); "sad" ( $F(1, 159) = .586; p = .445$ ); "embarrassed" ( $F(1, 159) = .043; p = .836$ ); "sympathetic" ( $F(1, 159) = 2.39; p = .125$ ); "shocked" ( $F(1, 159) = .190; p = .664$ ); and "lonely" ( $F(1, 159) = .399; p = .529$ ). Table 4 depicts the means by condition for these non-significant ratings.

**Table 4. Means for emotional ratings by survey type (non-significant).**

<b>Emotional indicator</b>	<b>Self</b>	<b>Others</b>	<b>Overall</b>
amused	2.50	2.30	2.40
included	1.51	2.12	1.80
indifferent	1.88	2.15	2.02
sad	1.36	1.12	1.24
embarrassed	1.84	1.63	1.73
sympathetic	1.96	1.55	1.75
shocked	1.63	1.48	1.55
lonely	1.48	1.29	1.39

**"When other people use their cell phones in a public place, I feel".**

The emotional ratings that were found to be significantly higher on the others survey than the self survey were as follows: "annoyed" ( $F(1, 159) = 11.07; p < .01$ ); "disturbed" ( $F(1, 159) = 9.33; p < .01$ ); "angry" ( $F(1, 159) = 12.11; p = .001$ ); "disrespected" ( $F(1, 159) = 14.62; p < .001$ ); "ignored" ( $F(1, 159) = 4.03; p < .01$ ). Table 5 depicts the significant mean differences for each factor by survey type.

**Table 5. Significant mean differences in emotional ratings (higher in others condition).**

Emotional ratings	Self	Others	Overall
annoyed	2.10	2.67	2.40
disturbed	2.33	2.90	2.62
angry	1.56	2.17	1.87
disrespected	1.32	2.00	1.67
ignored	1.37	1.86	1.62

**"When I use my cell phone in a public place, I feel:"**

The emotional ratings that were found to be significantly higher on the self survey were as follows: "self-conscious" ( $F(1, 159) = 20.05; p < .001$ ); "friendly" ( $F(1, 159) = 9.04; p < .01$ ); "scared" ( $F(1, 159) = 5.02; p < .05$ ); "happy" ( $F(1, 156) = 26.08; p < .001$ ); "comforted" ( $F(1, 155) = 11.98; p = .001$ ); "surprised" ( $F(1, 155) = 7.73; p < .01$ ); "safe" ( $F(1, 155) = 9.93; p < .01$ ); "nervous" ( $F(1, 159) = 4.24; p < .05$ ); "paranoid" ( $F(1, 159) = 5.84; p < .05$ ). Table 6 depicts the significant mean differences for these emotional ratings.

**Table 6. Significant mean differences in emotional ratings (higher in self condition).**

Emotional ratings	Self	Others	Overall
self-conscious	2.50	1.40	1.93
friendly	2.73	1.60	2.15
scared	1.45	1.10	1.27
happy	3.05	1.31	2.16
comforted	2.50	1.43	1.95
surprised	2.11	1.49	1.80
safe	2.69	1.50	2.07
nervous	1.55	1.17	1.35
paranoid	1.42	1.12	1.62

Analysis of emotional ratings by gender:

A significant main effect for gender was found for "angry" ( $F(1, 156) = 6.72$ ;

$p < .05$ ). Men ( $n = 55$ ) reported being more angered by public cell phone use ( $M = 1.89$ ) than women ( $n = 55$ ) ( $M = 1.89$ ).

A marginally significant main effect for gender was found for "embarrassed" ( $F(1, 156) = 2.92; p = .090$ ) and "safe" ( $F(1, 156) = 3.49; p = .064$ ). Women ( $n = 108$ ) reported feeling more embarrassed ( $M = 1.87$ ) than men ( $n = 54$ ) ( $M = 1.44$ ) about cell phone use in public. Women ( $n = 106$ ) reported feeling more safe ( $M = 2.20$ ) than men ( $n = 55$ ) ( $M = 1.82$ ) about cell phone use in public.

No other significant effects were found for gender.

Analysis of emotional ratings by age category:

A significant main effect was found for age category for: "happy" ( $F(1, 156) = 4.20; p < .05$ ); "embarrassed" ( $F(1, 156) = 5.19; p < .05$ ) and "angry" ( $F(1, 156) = 13.35; p < .001$ ). Those under 25 years of age ( $n = 123$ ) reported being happy about public cell phone use ( $M = 2.24$ ) more than those aged 25 and older ( $n = 38$ ) ( $M = 1.95$ ). Those participants aged 25 years and older ( $n = 38$ ) reported being more embarrassed by public cell phone use ( $M = 2.32$ ) than those under 25 ( $n = 123$ ) ( $M = 1.52$ ). Those participants aged 25 years and older ( $n = 38$ ) reported being more angry about public cell phone use ( $M = 2.03$ ) than those under 25 ( $n = 124$ ) ( $M = 1.83$ ).

A marginally significant main effect for age category was found for: "annoyed" ( $F(1, 159) = 3.87; p = .051$ ). Those 25 and older ( $n = 38$ ) reported being slightly more annoyed by public cell phone use ( $M = 2.47$ ) than those under 25 years of age ( $n = 121$ ) ( $M = 2.29$ ).

No other significant main effects were found for age category.

Analysis of emotional ratings for length of time of cell phone use:

A significant main effect for length of time of cell phone use was found for: "angry" ( $F(1, 156) = 6.16; p < .05$ ); "annoyed" ( $F(1, 159) = 5.73; p < .05$ ); "amused" ( $F(1, 159) = 6.29; p < .05$ ). Those participants using a cell phone for more than three years ( $n = 54$ ) reported being more angry about public cell phone use ( $M = 2.04$ ) than those who have used a cell phone for 0 - 3 years ( $n = 109$ ) ( $M = 1.79$ ). Those participants using a cell phone for more than three years ( $n = 53$ ) reported being more annoyed by public cell phone use ( $M = 2.58$ ) than those using a cell phone for 0 - 3 years ( $n = 106$ ) ( $M = 2.21$ ). Those using a cell phone for more than 3 years ( $n = 53$ ) reported being more amused by public cell phone use ( $M = 2.51$ ) than those using a cell phone for 0 - 3 years ( $n = 106$ ) ( $M = 2.28$ ).

No other main effects were found for length of time of cell phone use.

Analysis of emotional ratings for interaction between gender and survey type:

A significant interaction between gender and survey type was found for two of the emotional ratings: "friendly" ( $F(1, 159) = 5.49; p < .05$ ) and "happy" ( $F(1, 156) = 11.47; p = .001$ ). For the emotional rating "friendly", a one-way ANOVA was performed to determine what the significant differences between responses on the two surveys were by gender. In the self condition, men and women felt "friendly" about their own cell phone use in public to a similar degree. For women in the self condition ( $n = 54$ ), the average score for "friendly" was 2.88. For men in the self condition ( $n = 24$ ), the average score for "friendly" was 2.38. In the others condition, men felt more "friendly" about other people's cell phone use in public than women. For men in the others condition ( $n = 30$ ),

the average score for "friendly" was 1.86. For women in the others condition (n = 53), the average score for "friendly" was 1.45.

For the emotional rating "happy", the differences in scores by gender for both the self and the others categories were significant. In the self condition, women reported being happier than men when using their own cell phone in public. For women in the self condition (n = 55), the average score for "happy" was 3.25. For men in the self condition (n = 24), the average score for "happy" was 2.58. In the others condition, men reported being happier than men about the public cell phone use of others. For men in the others condition (n = 30), the average score for "happy" was 1.63. For women in the others condition (n = 53), the average score for "happy" was 1.13.

No other significant interactions between gender and survey type were found for the emotional ratings.

Analysis of emotional ratings for interaction between survey type and age category:

A significant interaction between survey type and age category was found for one emotional rating: "happy" ( $F(1, 156) = 4.09; p < .05$ ). A one-way ANOVA was performed to determine what mean difference by survey type was significant for this emotional rating. In the others condition, those under 25 and those 25 years and older, gave "happy" a similar rating as it relates to the experience of other people's cell phone use in public. Participants under 25, in the others condition, (n = 65) gave "happy" an average rating of 1.32. Participants aged 25 and older, in the others condition (n = 18) gave "happy" an average rating of 1.28.

In the self condition, those under 25 reported feeling happier about their own cell phone use in public than those 25 years and older. Participants under 25 in the self condition ( $n = 58$ ), gave "happy" an average rating of 3.26. Participants 25 years and older in the self condition ( $n = 20$ ) gave "happy" an average rating of 2.55.

There were no other significant interactions between survey type and age category found for the emotional ratings.

Analysis of emotional ratings for interaction between survey type and length of time of cell phone use:

A significant interaction between survey type and length of time of cell phone use was found for the following emotional ratings: "annoyed" ( $F(1, 159) = 11.32; p = .001$ ); "disturbed" ( $F(1, 159) = 4.18; p < .05$ ); "sympathetic" ( $F(1, 159) = 3.91; p = .05$ ). A one-way ANOVA was performed to determine the significant mean differences between groups for these emotional ratings. In the self condition, participants who have used their cell phone for 0 - 3 years and those who have used their cell phone for more than 3 years, gave the emotional rating "annoyed" a similar score in regards to their own cell phone use in public. Participants in the self condition who have used their cell phone for 0 - 3 years ( $n = 53$ ) gave "annoyed" an average rating of 2.17. Participants in the self condition who have used their cell phone for more than 3 years ( $n = 25$ ) gave "annoyed" an average rating of 1.96. In the others condition, participants who have used their cell phones for more than 3 years reported being more annoyed by other people's cell phone use in public than those participants who have used their cell phones for 0 - 3 years. Participants in the others condition who have used their cell phone for more than 3 years ( $n = 30$ ) gave

"annoyed" an average rating of 3.27. Participants in the others condition who have used their cell phone for 0 - 3 years (n = 55) gave "annoyed" an average rating of 2.35.

In the self condition, participants who have used their cell phone for 0 - 3 years and those who have used their cell phone for more than 3 years, gave the emotional rating "disturbed" a similar score in regards to their own cell phone use in public. Participants who have used their cell phone for 0-3 years in the self condition (n = 54) gave "disturbed" an average rating of 2.43. Participants who have used their cell phone for more than 3 years, in the self condition, (n = 25) gave "disturbed" an average rating of 2.12. In the others condition, participants who have used their cell phones for more than 3 years were more disturbed by other people's cell phone use in public than those participants who have used their cell phone for 0 - 3 years. Participants, in the others condition, who have used their cell phone for more than 3 years (n = 29) gave "disturbed" an average rating of 3.24. Participants in the others condition, who have used their cell phones for 0 - 3 years, (n = 54) gave "disturbed" an average rating of 2.72.

In the self condition, participants who have used their cell phone for 0 - 3 years and those who have used their cell phone for more than 3 years, gave the emotional rating "sympathetic" a similar score in regards to their own cell phone use in public. Participants who have used their cell phone for 0 - 3 years in the self condition (n = 53) gave "sympathetic" an average rating of 1.92. Participants who have used their cell phone for more than 3 years, in the self condition, (n = 25) gave "sympathetic" an average rating of 2.04. In the others condition, participants who have used their cell phones for 0 - 3 years were more sympathetic towards other people's cell phone use in

public than those participants who have used their cell phone for more than 3 years. Participants, in the others condition, who have used their cell phone for 0 - 3 years ( $n = 55$ ) gave "sympathetic" an average rating of 1.62. Participants in the others condition, who have used their cell phones for more than 3 years, ( $n = 29$ ) gave "sympathetic" an average rating of 1.41.

A marginally significant interaction for survey type and length of time of cell phone use was found for the emotional rating "safe" ( $F(1, 159) = 3.80; p = .053$ ). In the self condition, participants who have used their cell phone for 0 - 3 years and those who have used their cell phone for more than 3 years, gave the emotional rating "safe" a similar score in regards to their own cell phone use in public. Participants who have used their cell phone for 0 - 3 years in the self condition ( $n = 53$ ) gave "safe" an average rating of 2.72. Participants who have used their cell phone for more than 3 years, in the self condition, ( $n = 24$ ) gave "safe" an average rating of 2.63. In the others condition, participants who have used their cell phones for more than 3 years felt more safe in regards to other people's cell phone use in public than those participants who have used their cell phone for 0-3 years. Participants, in the others condition, who have used their cell phone for more than 3 years ( $n = 29$ ) gave "safe" an average rating of 1.76. Participants in the others condition, who have used their cell phones for 0 - 3 years, ( $n = 55$ ) gave "safe" an average rating of 1.36.

There were no other significant interactions for survey type and length of time of cell phone use for the emotional ratings.

*Factor analysis for emotional ratings.*

A factor analysis was performed utilizing the 22 emotional ratings of the questionnaires. Two significant components emerged.

The first component, with an Eigenvalue of 5.12, contained 13 of the 22 emotional ratings. Items with an extraction value greater than .500 were used in this component. The thirteen items in this factor were: a.) friendly (.576); b.) scared (.534); c.) included (.537); d.) sad (.522); e.) happy (.556); f.) embarrassed (.513); g.) comforted (.641); h.) surprised (.627); i.) sympathetic (.627); j.) shocked (.595); k.) nervous (.523); l.) lonely (.510); m.) paranoid (.611).

The second component, with an Eigenvalue of 3.45, contained 7 of the 22 emotional ratings. Items with an extraction value greater than .500 were used in this component. The seven items in this factor were: a.) annoyed (.558); b.) friendly (reversed) (-.541); c.) happy (reversed) (-.568); d.) disturbed (.564); e.) angry (.678); f.) disrespected (.705); g.) ignored (.524).

*Creation of "emotional experience of cell phone use" scale.*

The thirteen items from the first component were combined to create an "emotional experience of cell phone use" scale with a Cronbach's alpha of .8349. The scores on the individual items were added together and then divided by 13 in order to produce more easily interpretable results. The minimum score on this scale was 1.00 and the maximum score was 4.08. The overall average score for this scale was 1.63. A higher score on this scale would indicate more of an emotional response to cell phone use in public. A lower score would indicate less of an emotional response to cell phone use in public.

*Analysis of "emotional experience of cell phone use in public" scale.*

A GLM was created in order to compare the participants' scores on this scale by type of survey, gender, age category, and length of time of cell phone use. A significant main effect for type of survey was found ( $F(1, 158) = 8.99; p = .001$ ). Participants reported more of an emotional response to their own cell phone use in public than the cell phone use of others. Participants taking the self survey ( $n = 76$ ) reported an average score of 1.91 on this scale. Participants taking the others survey ( $n = 83$ ) reported an average score of 1.37 on this scale. Table 7 describes the descriptive details of this scale.

**Table 7. ANOVA and means for scale characterizing emotional response to public cell phone use.**

Variable	Condition	N	Min	Max	Mean	F	Sig.
Scale measuring the emotional experience of cell phone use in public	Other	83	1.00	2.54	1.37	8.99	.001
	Self	76	1.00	4.08	1.91		
	Overall	159	1.00	4.08	3.42		

No significant main effects were found for gender ( $F(1, 158) = 1.59; p = .209$ ), age category ( $F(1, 158) = .109; p = .742$ ) or length of time of cell phone use ( $F(1, 158) = .608; p = .437$ ).

No significant interactions were found for this scale.

*Creation of "disturbed" scale.*

The seven items from the second component were combined to create a "disturbed" scale related to public cell phone use. This scale had a Cronbach's alpha of .7283. The scores on the individual items were added together and then divided by 7 in order to produce more easily interpretable results. The minimum score on this scale 1.14 and the maximum score for this scale was 4.71. The overall average score for this scale

was 2.54. A higher score on this scale would indicate a stronger feeling of being disturbed by public cell phone use. A lower score on this scale would indicate a lesser feeling of being disturbed by public cell phone use.

*Analysis of "disturbed" scale.*

A GLM was created in order to compare participants' scores on this scale by type of survey, gender, age category, and length of time of cell phone use. A significant main effect was found for survey type ( $F(1, 157) = 41.63; p < .001$ ). Participants reported being more disturbed by other people's cell phone use in public than their own. Participants taking the others survey ( $n = 81$ ) scored an average of 2.95 on the disturbed scale. Participants taking the self survey ( $n = 76$ ) scored an average of 2.11 on the disturbed scale. Table 8 describes the descriptive details of this scale.

**Table 8. ANOVA and means for scale characterizing the "disturbed" scale.**

Variable	Condition	N	Min	Max	Mean	F	Sig.
Scale measuring how disturbed cell phone users are by cell phone use in public.	Other	81	1.29	4.71	2.95	41.67	.000
	Self	77	1.14	3.71	2.11		
	Overall	157	1.14	4.71	2.51		

A significant main effect for age category was found for the disturbed scale ( $F(1, 157) = 7.37; p < .01$ ). Participants 25 years old and older reported being more disturbed by public cell phone use than those under 25. Participants 25 years and older ( $n = 37$ ) scored an average of 2.70 on the disturbed scale. Participants under 25 ( $n = 120$ ) scored an average of 2.49 on the disturbed scale.

No main effects were found for gender ( $F(1, 157) = .921; p = .339$ ) or length of time of cell phone use ( $F(1, 157) = .449; p = .509$ ) for the disturbed scale.

A significant interaction between survey type and gender was found for the disturbed scale ( $F(1, 157) = 3.94; p < .05$ ). Women reported being more disturbed than men by other people's public cell phone use. Women in the others condition ( $n = 53$ ) reported an average score of 3.03 on the disturbed scale. Men in the others condition ( $n = 28$ ) reported an average score of 2.80 on the disturbed scale. Men reported being more disturbed than women by their own cell phone use in public. Men in the self condition ( $n = 23$ ) reported an average score of 2.33 on the disturbed scale. Women in the self condition ( $n = 54$ ) reported an average score of 2.02 on the disturbed scale.

No other significant interactions were found for the disturbed scale.

*Intention of cell phone use in public.*

Those participants responding to the others survey were asked to respond to an open-ended question that read: "Why do people have cell phone conversations in public?" Those participants responding to the self survey were asked to respond to an open-ended question that read: "Why do you have cell phone conversations in public places?" All of the responses were coded into 5 major categories. Responses to why do people have cell phone conversations in public received a scoring of "1" if the response related to "being inconsiderate or rude", "don't care about others", "to make self feel important". Responses received a score of "2" if they related to "being bored", or "being lonely" or "nothing better to do". Responses received a "3" if they were a neutral response like "because I can", "to save time", "to keep in touch", "same reasons as using any phone". Responses received a "4" if they related to "because it is mobile", "on the go", "convenience", "for work, school, social reasons". Responses received a "5" if they related to "important calls" and "in case of emergency". The range from 1 to 5 indicated

a range in responses from dispositional attributions to more situational constraints. Table 9 depicts the frequencies of responses for each point on the five-point scale.

**Table 9. Frequencies of "Why do people have cell phone conversations in public places".**

<b>"Why do people have cell phone conversations in public places?"</b>	<b>Others Freq (%) (M=2.79)</b>	<b>Self Freq (%) (M=3.93)</b>
<b>(5)</b> "In case of emergency; it's comforting"	1 (1.1)	26 (34.7)
<b>(4)</b> "Because its mobile; They are on the go; it's convenient; need to for work/school/social reason"	26 (29.9)	29 (38.7)
<b>(3)</b> "Neutral; just because; to save time; to keep in touch"	28 (32.2)	10 (13.3)
<b>(2)</b> "Because they are bored or lonely/ They have nothing better to do"	18 (20.7)	9 (12.0)
<b>(1)</b> "They are inconsiderate; rude; to make themselves feel important"	14 (16.1)	1 (1.3)

A GLM was created in order to compare the participants' score on the intentionality scale by survey type, gender, age category and length of time of cell phone use. A significant main effect was found for survey type on the intentionality scale ( $F(1, 161) = 25.79; p < .001$ ). Participants in the others condition made more dispositional attributions as to why people have cell phone conversations in public while those in the self condition made more situational attributions as to why they themselves have cell phone conversations in public. Participants in the others condition ( $n = 87$ ) scored an average of 2.79 on the intentionality scale. Participants in the self condition ( $n = 75$ ) scored an average of 3.93 on the intentionality scale.

There were no significant main effect for gender ( $F(1, 161) = .242; p = .624$ ), age category ( $F(1, 161) = .000; p = .990$ ) or length of time of cell phone use ( $F(1, 161) = .719; p = .398$ ) for the intentionality scale.

There was a significant interaction between survey type and age category ( $F(1, 161) = 5.76; p < .05$ ). Participants in the others condition who were under 25 ( $n = 69$ ) rated the intention of other people's public cell phone conversations ( $M = 2.91$ ) higher than those 25 years old and older ( $n = 18$ ) ( $M = 2.33$ ). Participants in the self condition who were 25 years old and older ( $n = 19$ ) rated the intention of their own public cell phone conversations ( $M = 4.42$ ) higher than those under 25 ( $n = 55$ ) ( $M = 3.76$ ).

*How difficult was it for you to recall a public cell phone conversation?*

Participants taking the self survey and the others survey were asked to rate on a scale from 1 to 5 how difficult it was for them to recall a public cell phone conversation. A response of "1" indicated that it was not at all difficult for them to recall a conversation and a response of "5" indicated that it was very difficult for them to recall a conversation. The overall mean for this item was 2.36. A GLM was created in order to compare the participants' score on this item by survey type, gender, age category and length of time of cell phone use.

A marginally significant main effect for survey type was found for this item ( $F(1, 153) = 3.62; p = .059$ ). Those participants taking the others survey scored slightly higher, or found it slightly more difficult to recall a cell phone conversation in public, than those participants taking the self survey. Those participants taking the others survey ( $n = 83$ ) rated their difficulty of recalling a time when they had overheard another person's cell phone conversation in public at 2.55. Those participants taking the self survey ( $n = 70$ ) rated their difficulty of recalling a time when they had a cell phone conversation in public at 2.13.

There were no significant main effect found for gender ( $F(1, 153) = .121$ ;

$p = .728$ ); age category ( $F(1, 153) = .407$ ;  $p = .525$ ) or length of time of cell phone use ( $F(1, 153) = .763$ ;  $p = .384$ ). There were no significant interactions.

*Analysis of participants' perception of average cell phone user and the use of cell phones in public places.*

All the surveys contained an open-ended question that asked participants to describe the average cell phone user. One hundred forty-eight responses were recorded and coded in order to create a five-point scale. Responses were coded on a scale from 1 to 5 in order to categorize the nature of the responses. The scale categorized the responses from negative to positive. Responses received a score of "1" if they described the average cell phone user as: "annoying", "loud", "a show-off", "rude", or "inconsiderate". Responses scored a "2" if they described the average cell phone user as: "talkative", "talks for hours/any free time spent on the phone", "bored", "lonely", "dependent on being connected to others". Responses scored a "3" if they described the average cell phone user as: "normal", "fine", "average", "anyone", "has a reason to use the phone". Responses scored a "4" if they described the average cell phone user as: "social", "lots of friends", "on the go", "busy", "carefree". Responses scored a "5" if they described the average cell phone user as: "good looking", "trendy", "rich", "popular", "uses it for emergencies", "has important reason to use phone, not just to socialize". Table 10 reports the frequency of each category.

**Table 10. Frequencies of "How would you describe the average cell phone user?"**

<b>"How would you describe the average cell phone user?" (M=2.55; n=148)</b>	<b>Frequency</b>	<b>Valid Percent</b>
<b>(1)</b> "annoying" "loud" "a show-off" "rude" "inconsiderate"	44	29.7
<b>(4)</b> "social" "lots of friends" "on the go" "busy" "carefree"	32	21.6
<b>(3)</b> "normal", "fine", "average", "anyone", "has a reason to use the phone"	31	20.9
<b>(2)</b> "talkative", "talks for hours/any free time spent on the phone", "bored", "lonely", "dependent on being connected to others"	31	20.9
<b>(5)</b> "good looking" "trendy" "rich" "popular" "uses it for emergencies" "has important reason to use phone, not just to socialize"	10	6.8

A GLM was created in order to compare the participants' score on the average cell phone user scale by survey type, gender, age category and length of time of cell phone use. No significant main effects were found for survey type, gender, age category or length of time of cell phone use (All Fs (1, 148) < 1.00; *ps* > .05). The mean difference between the self and other surveys was not significant (self: M=2.56; others: M=2.54).

*How often do you observe people using their cell phones in public?*

Participants were asked to rate the same question on both surveys: "How often do you observe people using their cell phones in public?" A response of "1" indicated not at all and a response of "5" indicated all the time. The mean response on this item was 4.07 (n = 171). A GLM was performed to determine whether there were any significant differences for this item based on survey type, gender, age category, or length of time of cell phone use. No main effects were found for this item. There were no significant interactions.

*How often do you overhear people using their cell phones in public?*

Participants were asked on both surveys, how often they had overheard strangers' cell phone conversations. Responses were measured on a five point Likert scale with "1" meaning "not at all" and "5" meaning "all the time". The average score for this item was a 3.68 (n = 171). A GLM was performed to determine whether there were any significant differences for this item based on survey type, gender, age category, or length of time of cell phone use. No main effects were found for this item. There were no significant interactions.

*How much do you like overhearing people using their cell phones in public?*

On both surveys, participants were asked to indicate how much they liked overhearing other people's cell phone conversations in public. Responses were measured on a five point Likert scale with "1" meaning "not at all" to "5" meaning "very much". The overall mean for this question was 1.96 (n=171).

A GLM was performed to determine whether there were any significant differences for this item based on survey type, gender, age category, or length of time of cell phone use. A marginally significant main effect was found for age category for this item ( $F(1, 170) = 3.16; p = .077$ ). Those under the age of 25 reported liking overhearing the public cell phone conversations of others more than those participants aged 25 and older. Those under the age of 25 (n = 132) scored an average of 2.11 on this item. Those 25 years old and older (n = 38) scored an average of 1.47 on this item. No other significant main effects or interactions were found for this item (All  $F_s(1, 170) < 1.00; p_s > .05$ ).

*How much did you like taking the survey?*

Participants taking the self survey and the others survey were asked to rate on a scale from 1 to 5 how much they liked taking the survey. A score of "1" meant "not at all" and a "5" meant "very much". The overall average score for this item was 3.32. A GLM was performed to determine whether there were any significant differences for this item based on survey type, gender, age category, or length of time of cell phone use. No main effects were found for this item. Those participants taking the others survey (n = 87) scored an average of 3.40 on this item. Those participants taking the self survey (n = 83) scored an average of 3.24 on this item.

A significant interaction was found between survey type and gender ( $F(1, 169) = 5.52; p < .05$ ). In exploring the mean differences on this item, men (n = 26) liked taking the self survey (M = 3.42) more than the others survey (M = 3.16) (n = 32). Women (n = 55) liked taking the others survey (M = 3.55) more than the self survey (M = 3.16)(n = 57). No other significant interactions were found.

*Correlations for self and others surveys with PUBLIC CELL PHONE RUDENESS scale.*

The public cell phone rudeness scale was correlated with other items from the survey. Correlations were performed separately with the self survey data and the others survey data. The following significant correlations emerged:

For those taking the others survey, the more that other people's public cell phone behavior was perceived as rude, the more participants liked overhearing the cell phone conversations of other people ( $r = .363; p = .001$ ), the more often they overheard the cell phone conversations of others in public ( $r = .249; p < .05$ ), the less sympathetic they felt

when other people used their cell phones in public ( $r = -.211$ ;  $p = .054$ ), the more negatively they judged the intention of other's cell phone conversations in public ( $r = -.279$ ;  $p < .01$ ).

For those taking the self survey, the more they evaluated their own public cell phone behavior as rude, the less attentive they were about their own cell phone use ( $r = -.391$ ;  $p < .001$ ), the less disturbed they were by their own cell phone use ( $r = -.257$ ;  $p < .05$ ), the more positively they evaluated the average cell phone user ( $r = .337$ ;  $p < .01$ ), the more they liked overhearing the cell phone conversations of others ( $r = .374$ ;  $p = .001$ ), the more they thought they were like the average cell phone user ( $r = .472$ ;  $p < .001$ ), the less disturbed they were by their own cell phone use ( $r = -.249$ ;  $p < .05$ ), the more amused they were by their own cell phone use ( $r = .262$ ;  $p < .05$ ), the more they thought that the fact that they could get cell phone calls in public demonstrates the value of having a cell phone ( $r = .297$ ;  $p < .01$ ), the more conversations they had per day ( $r = .244$ ;  $p < .05$ ).

**Table 11. Correlation of DISTURB and PUBLIC CELL PHONE RUDENESS scales for self and others surveys.**

Group			DISTURB	CELL PHONE RUDENESS SCALE
<b>DISTURB</b>	<b>Others</b>	Pearson Corr.	1.000	.120
		Sig. (2- tailed)	---	.287
		N	81	80
	<b>Self</b>	Pearson Corr.	1.000	-.257
		Sig. (2- tailed)	---	.024
		N	77	77

*Correlations for self and others surveys with ATTENTIVE CELL PHONE BEHAVIOR scale.*

The attentive cell phone behavior scale was correlated with other items from the survey. Correlations were performed separately with the self survey data and the others survey data. The following significant correlations emerged:

For those taking the others survey, the more they thought that others should be concerned with the attentiveness of public cell phone behavior, the more disturbed they were by other people's cell phone use in public ( $r = .301; p < .01$ ), the less they liked overhearing other people's cell phone conversations in public ( $r = -.391; p < .001$ ), the less they thought they were like the average cell phone user ( $r = -.577; p < .001$ ), the less they thought that other people used their cell phone in the same ways that they do ( $r = -.753; p < .001$ ), the less they thought that the fact that people can get cell phone calls in public demonstrates the value of having a cell phone ( $r = -.357; p = .001$ ), the less conversations they had per day ( $r = -.448; p < .001$ ) and the older they tended to be ( $r = .425; p < .001$ ).

For those taking the self survey, the more they thought that it was important that they were attentive to their own public cell phone use, the more disturbed they were by their own cell phone use ( $r = .236; p < .05$ ), the less they liked overhearing the cell phone conversations of other people in public ( $r = -.330; p < .01$ ), the less they thought they were like the average cell phone user ( $r = -.348; p < .01$ ), the more self-conscious they felt when using their cell phone in public ( $r = .275; p < .05$ ), the less they thought that the fact that they could get cell phone calls in public demonstrates the value of having a cell phone ( $r = -.356; p = .001$ ), the less conversations they had per day ( $r = -.259; p < .05$ ),

the more positively they evaluated their intention for having cell phone conversations in public ( $r = .235$ ;  $p < .05$ ) and the older they tended to be ( $r = .236$ ;  $p < .05$ ).

*Correlations for self and others surveys with DISTURB scale.*

The Disturb scale was correlated with other items from the survey. Correlations were performed separately with the self survey data and the others survey data. The following significant correlations emerged:

For those participants who took the others survey, the more disturbed they felt by other people's cell phone behavior in public, the more they stressed the importance of other people's public cell phone attentiveness ( $r = .301$ ;  $p < .01$ ), the less they rated themselves to be like the average cell phone user ( $r = -.313$ ;  $p < .01$ ) and the less they thought they used their cell phones in the same ways that others do ( $r = -.281$ ;  $p < .05$ ).

For those participants who took the self survey, the more disturbed they were by their own cell phone behavior, the less they evaluated their own public cell phone behavior as being rude ( $r = -.257$ ;  $p < .05$ ), the more attentive they thought they were in relation to their own public cell phone behavior ( $r = .236$ ;  $p < .05$ ), the less they liked overhearing the cell phone conversations of other people ( $r = -.349$ ;  $p < .01$ ) and the more self-conscious they felt about their own public cell phone behavior ( $r = .232$ ;  $p < .05$ ).

*Correlations of self and others survey data with EVALUATION OF AVERAGE CELL PHONE USER scale.*

The evaluation of average cell phone user scale was correlated with other items from the survey. Correlations were performed separately with the self survey data and the others survey data. The following significant correlations emerged:

For those taking the others survey, the more positively they described the average cell phone user, the more safe participants felt when other people use their cell phones in public ( $r = .246; p < .05$ ), the more lonely participants felt when other people use their cell phones in public ( $r = .232; p < .05$ ), the more indifferent they felt about other people's cell phone use in public ( $r = .227; p < .05$ ), the happier they felt about other people's cell phone use in public ( $r = .384; p = .001$ ), the less annoyed they felt about other people's cell phone use in public ( $r = -.228; p < .05$ ) and the more positively they evaluated the intention of other people's public cell phone use ( $r = .251; p < .05$ ).

For those taking the self survey, the more positively they described the average cell phone user, the more rude they thought their own public cell phone behavior was ( $r = .337; p < .01$ ), the less disturbed they felt about their own cell phone use in public ( $r = -.395; p = .001$ ), the less angry they felt about their own public cell phone use ( $r = -.242; p = .054$ ), the less disrespected they felt about their own public cell phone use ( $r = -.287; p < .05$ ), the less nervous they felt about their own public cell phone use ( $r = -.268; p < .05$ ), the more positive they evaluated the intention of their own public cell phone use ( $r = .251; p < .05$ ) and the more they thought that they used their cell phone in the same ways as others ( $r = .263; p < .05$ ).

*Correlations of self and others survey data with HOW MUCH ARE YOU LIKE THE AVERAGE CELL PHONE USER item.*

The item: "How much are you like the average cell phone user?" was correlated with other items from the survey. Correlations were performed separately with the self survey data and the others survey data. The following significant correlations emerged:

For the participants taking the others survey, the more they thought they were like the average cell phone user, the less they thought it was important for other people to be concerned with the attentiveness of public cell phone use ( $r = -.577$ ;  $p < .001$ ), the less disturbed they were by other people's public cell phone use ( $r = -.313$ ;  $p < .01$ ), the more positively they evaluated the average cell phone user ( $r = .414$ ;  $p < .001$ ), the more they thought that other people use their cell phones in the same ways that they do ( $r = .549$ ;  $p < .001$ ), the more conversations they had per day ( $r = .364$ ;  $p = .001$ ), the more they liked overhearing other people's public cell phone conversations ( $r = .267$ ;  $p < .05$ ) and the younger they tended to be ( $r = -.238$ ;  $p < .05$ ).

For the participants taking the self survey, the more they thought they were like the average cell phone user, the more they evaluated their own public cell phone use as rude ( $r = .472$ ;  $p < .001$ ), the less attentive they were about their own public cell phone behavior ( $r = -.348$ ;  $p < .01$ ), the more positively they evaluated the average cell phone user ( $r = .511$ ;  $p < .001$ ), the more amused they felt about their own cell phone use in public ( $r = .294$ ;  $p < .01$ ), the more they thought that they used their cell phones in the same ways that others do ( $r = .370$ ;  $p = .001$ ) and the less difficult it was for them to recall a time when they had a cell phone conversation in public ( $r = -.275$ ;  $p < .01$ ).

*Correlations of self and others survey data with HOW MUCH DO YOU LIKE OVERHEARING OTHER PEOPLE'S CELL PHONE CONVERSATIONS IN PUBLIC item.*

The item: "How much do you like overhearing other people's cell phone conversations in public" was correlated with other items from the survey. Correlations

were performed separately with the self survey data and the others survey data. The following significant correlations emerged:

For those participants taking the others survey, the more they liked overhearing other people's cell phone conversations in public, the more rude they evaluated other people's cell phone behavior ( $r = .363; p = .001$ ), the less they thought that other people's cell phone attentiveness was important ( $r = -.391; p < .001$ ), the more they thought they were like the average cell phone user ( $r = .261; p < .05$ ), the more they observed other people's cell phone use in public ( $r = .250; p < .05$ ), the more they overheard other people's cell phone conversations in public ( $r = .262; p < .05$ ), the more they thought that other people used their cell phones in the same ways that they do ( $r = .351; p = .001$ ), the more they thought that having the ability to have cell phone conversations in public demonstrated the value of having a cell phone ( $r = .323; p < .01$ ), the more conversations they had per day ( $r = .272; p < .05$ ) and the younger they tended to be ( $r = -.233; p = .05$ ).

For those participants taking the self survey, the more they liked overhearing other people's cell phone conversations in public, the more they evaluated their own cell phone behavior as rude ( $r = .374; p = .001$ ), the less important they thought their own public cell phone attentiveness was ( $r = -.330; p < .01$ ), the less disturbed they were by their own cell phone use in public ( $r = -.349; p < .01$ ), the more they thought that they used their cell phone in the same ways that others do ( $r = .409; p < .001$ ), the more they thought that the fact that they could get calls in a public place demonstrated the value of having a cell phone ( $r = .267; p < .05$ ) and the younger they tended to be ( $r = -.308; p < .01$ ).

*Correlations of self and others survey data with ACTUAL AGE.*

Actual age was correlated with other items from the survey. Correlations were performed separately with the self survey data and the others survey data. The following significant correlations emerged:

For participants taking the others survey, the older the participant was the more angry they were about other people's cell phone use in public ( $r = .216; p < .05$ ), the more embarrassed they were about other people's cell phone use in public ( $r = .327; p < .01$ ), the less they thought that other people used their cell phone in public when bored ( $r = -.317; p < .01$ ), the more they thought it was dangerous for other people to use their cell phones while driving ( $r = .255; p < .05$ ), the less they thought that the fact that other people can get cell phone calls in public demonstrates the value of having a cell phone ( $r = -.332; p < .01$ ), the less likely that strangers were around in the place that they had most of their cell phone conversations ( $r = -.234; p < .05$ ) and the fewer cell phone conversations per day ( $r = -.345; p < .01$ ).

For participants taking the self survey, the older they were the less amused they were by their own cell phone use in public ( $r = -.253; p < .05$ ), the less they used their cell phones in public when they are bored ( $r = -.508; p < .001$ ), the less they thought that they used their cell phones in the same ways as others ( $r = -.296; p < .01$ ) and the more positively they evaluated their own intention for having cell phone conversations in public ( $r = .301; p < .01$ ).

## **Discussion**

This research focuses on how people explain a public event. Half of the participants in this study were asked to explain the event based on their recollections of being an observer to that event. The other half of the participants were asked to explain the event from the perspective of being the main actor in that event. All of the participants had some experience of being at one time an observer and at another time being an actor. The event in question involved the use of a cell phone in public. This dual perspective on the same event was a necessary component in understanding the role that attributions play in understanding the behavior of others as well as our own behavior. Attributions aid in the establishment and regulation of social norms. The tension between the desire to assert one's individuality and the social pressure to conform to norms is revealed by analyzing these attributions.

Participants reported that public cell phone use is a common occurrence. Participants, on average, strongly disliked overhearing the public cell phone conversations of others. They reacted to the public cell phone use of others differently than how they reacted to their own public cell phone use. The data yielded significant results to support the theoretical foundations of biases in attributions that people make when asked to explain the behavior of others (correspondence bias) in comparison to their own behavior (self-serving bias). The stories that participants told in relation to a specific time when they were either a witness to or a participant in public cell phone use will be used in this section to further explore the social consequences of these attributional biases. The stories will also be used to investigate the ways in which public

cell phone use is challenging how we conceptualize the norms around behavior in public space.

*Public cell phone rudeness -- indicator of correspondence bias:*

Participants evaluated other people's public cell phone behavior as ruder than their own public cell phone behavior. This correspondence bias was robust. Participants rated their own behavior more positively than others' behavior. Their negative personal attitude toward the public cell phone behavior of others was reflected in their responses to the survey. Not only did participants rate the behavior of others more negatively, but they also had a negative emotional response to other people's cell phone use in public.

The negative evaluation of other people's public cell phone use was supported by the stories that participants wrote about times when they had overheard a cell phone conversation in public.

“A **very annoying woman** speaking about her boss. She was **very loud and didn't care** about keeping her voice down. **She was a huge gossip and spoke about a number of her co-workers.** This woman just **spoke about nonsense**, things that she could have waited to speak about when she got home. **The woman has a loud annoying voice**”  
(Female, 25, White, Middle-class).

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“I was going to class one day and this girl was conversating on her cell phone. Apparently she was arguing with her boyfriend. **She was screaming at the top of her lungs.** When she started screaming I thought to myself, **this girl is a drama queen** and **she wants everyone to hear**

**her scream at her boyfriend**. Everyone was looking at her, **she made herself look like a total fool**" (Male, 19, White, Middle-class).

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"This girl was talking loudly on the phone about what she did with her boyfriend the night before and what she did with her boyfriend's friend that day. I thought **she should have kept her mouth shut**. **She sounded like a pig**" (Female, 19, White, Middle-class).

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What does the attribution of rudeness and negative dispositional judgments related to the public cell phone behavior of others mean? Goffman (1982) stated that when we are occupying common space with another person we expect them to be respectful of our presence and not to intrude upon us nor ignore us entirely. Politeness in public is defined via the acknowledgement of others' presence. People's response to other people's cell phone use in public could indicate that they believe that those users are intentionally being inconsiderate and not upholding the responsibility of sharing public space. In examining the emotional response of participants to the public cell phone use of others, people reported feeling annoyed, disturbed, angry, disrespected and ignored. They did not feel friendly or happy when in the presence of others on their cell phone in public. The negative response to other people's public cell phone behavior on the survey items, coupled with the tone of participants' recollection of other people's cell phone conversations, indicates a belief in the intentional rude behavior of public cell phone users.

“I heard someone cursing a girlfriend; **I was annoyed** because I was studying and because **he didn't take into consideration that we were trying to concentrate**”(Female, 20, White, Working-class)

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“I was sitting on the (bus) and this pretty lady comes on, sits near me and she calls her friend. She talking about how she is messing around with this girl's boyfriend. She then went on with how the boyfriend is going to dump that tramp. Once I heard the conversation, I was thinking to myself how **she is the tramp and has no respect for herself. She didn't care who was listening, some people are trying to relax and she is talking on her phone like she is the only one there. Well I just can't believe that people want their business to be heard in public like that**”(Male, 19, Chinese, Working-class).

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Participants responded negatively to people who use their cell phones in public in this way because they viewed this behavior as violating the social expectations of public behavior. They made a point of reporting incidents when those people who are using their cell phones do not perceive their behaviors as rude, and do not react in a humble or apologetic way. This supports Malle and Bennet's (1998) definition of intentionality. Taken a step further, it seems that the observer believes that the actor is intentionally being rude and opposing the norms of public behavior without remorse. These "intentional acts of rudeness", as they relate to others' public cell phone use, seem to be the most salient to the participant who recalled such incidents when prompted to do so.

This is another indication that the "rude" public cell phone use of others is viewed as being out of the norm of social expectation and supports Green, Lightfoot, Bandy and Buchanan's (1985) explanation for why observers make dispositional attributions.

"I was sitting in front of the 3S building and I overheard a girl talking to her friend (I think) on an array of topics included how good the ecstasy was she dropped that weekend, to how lame her sister's party was the next day. She also mentioned the sex she and her boyfriend had and how it was. At first, I just laughed, and later, as I was talking to friend, **I was amazed at how much she said without even caring that I heard.** That's why it was so funny **she had no class**"(Male, 23, White, Working-class)

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"At the College of Staten Island, young lady was asking boyfriend if he still loved her. I responded to her that he did not. To which she responded with a laugh... **people have private conversations without considering who may be listening**". (Male, 50+, Black, Middle-class)

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"This woman was screaming at her significant other. She was cursing all over the place at the top of her lungs. **Disregarding everyone and everything around her. Everyone noticed this woman.** Some **people asked her to keep quiet** as she was walking and stopping (because there were children all around). **However the woman continued**

**screaming and cursing.** She was exceptionally loud and using foul language (Female, 21, White, Middle-class).

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When judging the behavior of other people on their cell phones in public, it may be difficult for us to imagine alternatives to explaining their behavior that have less to do with the individual's personality and more to do with the situation or with the interaction between the person, the technology, (the person they are communicating with via the device) and the context in which it is used. As a consequence, what we accept as appropriate for us to do in public (given the ways in which we have come to learn to use personalized communication technology), we may judge as not being appropriate for others.

*Stressing attentiveness of cell phone behavior -- indicator of self-serving bias:*

Lack of awareness of the environment within which individuals use their cell phones may cause the users to appear to be rude. It has been shown through much evidence conducted by those concerned with public safety that cell phones limit a user's ability to pay attention to the task at hand and therefore, many states have legislated a ban against using hand-held communication devices while driving. Having difficulty remembering a particular incident when one has had a cell phone conversation in a public place may indicate that cell phone users are not paying attention to their immediate surroundings. While physically present, the cell phone user may not be psychologically present. This split attention and awareness may cause the user to behave in ways that appear to be rude to those sharing the physical context with the user.

Lack of attention to the physical environment puts one at risk. Participants responded negatively when they thought that others in public were not attentive to what was going on around them while on their cell phones. This negative evaluation of others' behavior could be a self-protective response. If we believe that those around us are not paying attention to what is going on around them or to what they are doing, they may be putting those who share that space with them at risk. If anything, the inattentive person is judged as rude. It is not "good form" to ignore those who are in close proximity to you.

The key to understanding attributional biases as it relates to public cell phone use may lie in inattentiveness. If, as a cell phone user, you are paying more attention to the technological device and less attention to what you are doing in physical space, you will be less likely to pay attention to what is going on around you in the physical domain. Therefore you may not notice or remember the details of certain encounters. You may not be conscious of what impact your presence is having on the people around you or how dangerous your inattentive behavior may be to you or to those in close proximity to you.

In the following quote, a participant explained how he became aware of the dangers of cell phone inattentiveness while driving:

“Once I was driving upstate and I was on the phone talking to a friend. I had just met the person. We were having a good conversation. I got on the phone while I was in Yonkers as I was driving the phone had cut off on me. I didn't realize that I was already ... probably 60 miles from where I was in Yonkers. **I had not realized how far I drove and how quick I got there. It was as if I was unconscious for an hour. It was**

**kind of scary...** I could have killed myself, because I did not remember driving speed or changing lanes” (Male, 22, African American).

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By not being aware of our own cell phone behavior in public, we often contribute to the animosity surrounding the use of cell phones in public by others. If we are unaware of how rude our behavior is while on our own cell phones in public, we will then also be unaware of the fact that other people are interpreting our behavior as rude. In addition, if we are not aware of what we do while on our cell phones in public, and if we are unaware of the fact that others may be unaware of what they do while on their cell phones in public, then we may be led to assume that other people are using their cell phones with ill intention. We may not judge our own public cell phone behavior as negative and therefore, due to our own inattentiveness, commit the self-serving bias.

Having feelings of animosity toward strangers and alienation from those who use their cell phones while in public may push us towards seeking out what may comfort us from this hostile domain. Thus, if we are cell phone users ourselves, we may turn to the technology as a means of escape from the current situation. The perception of public life, as a hostile or discomforting domain, may increase the use of cell phones in public as we seek out the comfort of known others who can only be reached by communication device. As a result, we create a self-fulfilling techno-prophecy of a world of “inconsiderate cell phone users” who prefer communicating via an electronic device than face-to-face with people present in our shared physical domain.

*Being ignored: the mild end of moral exclusion?*

Does an observer label an actor's behavior as rude when the observer feels as though they are being ignored? The data speak to a mild form of moral exclusion from differing perspectives. The first perspective is that of the observers' exclusion of other public cell phone users for their seemingly rude behavior. The language used on the questionnaires to characterize the intention of the average cell phone user reflected a sense that the public cell phone user was worthy of rebuke and that other observers around the cell phone user often shared that belief:

“I was on the bus on my way home and it was relatively quiet on the bus then a woman's cell phone rings she answers it and proceed to carry a rather loud conversation for about 10-12 minutes, I did not understand a word she was saying because she was speaking in another language but she was so loud. The whole bus could hear her. **The woman across from me looked at me and we all shook our heads in agreement that she was being rude by holding such a loud conversation.** The conversation was so loud” (Female, 20, Haitian, Working-class).

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Participants' negative response to the public cell phone behavior of others may also be due to their feeling of being (mildly) morally excluded by the cell phone user. If, while in the presence of another, one feels ignored or excluded, and not worthy of consideration, negative feelings are sure to be generated between individuals. A sense of

powerlessness was evidenced in the ways in which people felt "trapped" in the position of onlooker or even "voyeur" to other people's public cell phone conversations.

“A student was discussing with a friend about the betrayal of another friend. (Presumably she snatched her boyfriend) **The girl was visibly upset that she either did not care who was listening or not or maybe she just decided to ignore those around her.** She babbled for long on how she was going to deal with the so-called friend while at the same time was calling her some unprintable names. **At first I was amused and surprised that a girl would be so stupid as to engage in such a conversation in a public place. (Not caring who was listening or not)** Surprise turned into embarrassment because I felt that others will come to view or generalize other girls (including myself) as been capable of such act. **Finally, I took my books to another corner where I will be out of earshot because the more I hear, the more I become upset knowing fully well that not only was she disturbing others with her conversation, she is also a disgrace to women folk. Surprisingly, nobody tried to caution her**” (Female, 28. Igbo (African), Working-class).

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“I was on the bus reading like normal, when a man not just on a cell but on a Nextel was arguing with his wife. Literally arguing – about him cheating on her and vice versa. **Honestly I didn't need to hear it,**

**only thing possible to do was move my seat. I mean I was on the bus nowhere else to go**” (Female, 24, White, Working-class).

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“A guy spoke to his friend and told him about the girl he met the other night at the bar. His story included details about the great sex he had with this woman **since it was next to where I stood (I couldn't go anywhere else) I heard the whole story and I got angry with the guy for telling so many details about this personal thing to his friend in a very public place. I was shocked because he spoke outloud as if he was alone in this world**” (Female, 25, Working-class).

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The final perspective is that of the cell phone user. When one is using their cell phone in public, they may feel somewhat morally excluded by those around them for violating a social norm of behavior. They may also feel disrespected and disturbed by the person calling their cell phone while they are in public. The cell phone user themselves may feel trapped by the situation in which expectations are coming from those physically present as well as those who are remote and making contact with the person via their cell phone.

“Disagreement with my boyfriend, **I was very uncomfortable-having this conversation on the bus.** The matter (in my opinion) had to be resolved, right at that time. (I should wait to cool off – **if I didn't have this cell phone with me, I would handle this situation better**). **Other people saw me getting angry – I finished conversation before I got**

**very angry – so I didn’t have to be embarrassed...** Stranger people saw me getting angry” (Female, 27, White, Working-class).

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**“I got into a fight with my ex-girlfriend at work. The conversation got heated and so I started screaming on the phone while my co-workers and customers just start staring at me like I was crazy”**

Q: *What was it about the conversation that made it stick out in your mind?*

**“The way everyone just looked at me while it all went on”.** (Male, 21, Latino, Working-class)

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“I was shopping and did not have a lot of time because I had to go somewhere and my phone rang while in the store. **I was annoyed because I was pressed for time and it was just someone who wanted to bullshit with me. At that moment I wished that I didn’t have a cell phone. When my phone rang it seemed loud**” (Female, 27, African-American, Working-class).

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*The legitimate use response: attributional bias and the establishment of social norms:*

Sixty-three percent of all of the 416 responses about what participants liked about having a cell phone related to three factors: convenience, easy accessibility, and the importance of having a cell phone with you “in case of an emergency”. These three

factors could be viewed as “legitimate” reasons participants gave for using a cell phone in public.

When asked about their own use, participants recalled cell phone conversations in public that were characterized as “important calls” that needed to be made. They also recalled that their own cell phone conversations were often in response to someone calling them. Participants wavered in their explanations of their own public cell phone use. Some stories were of self-justification, such as, the ego-defensive stance of “everyone else does it so why can’t I”. In other stories, the participants recounted the experience of surrendering to the cell phone call; characterizing the call as an external locus of control.

“Well, the reason I had this conversation was because it was a friend who went away and, I was going away the next day. **So it was my only chance to speak to her. I was shocked she called and kind of annoyed because I was rude to the others I was with.** but they understood I didn’t speak to them too often” (Female, 18, Greek, Middle-class).

Participants' stories of their own cell phone use in public often began with the explanation that the users did not initiate the calls themselves, but instead the users' behavior was in response to someone calling them while they were in a public place. For the most part, participants wanted to establish themselves as legitimate public cell phone users. They attributed any frivolous or “rude” behavior to the fact that someone had called them. Sixty-six of the 71 recollections of participants’ own cell phone conversations in public, or 93 percent, were reported as not being initiated by the

participants themselves. Of the self-reported behavior that violated social expectations, most resulted from the user being called or the initiation of the call was not specified in the recollection. Receiving a call was viewed as something beyond the control of the user/participant. In accordance with the definition of self-serving bias, users/participants are giving an explanation for their own "bad" behavior that is focused on external constraints (Aronson, 1999).

“I must begin by telling you that **I have my phone for emergencies only** so my conversations are not very interesting, my most recent was when I was shopping with my children and my husband called to tell me that he was home from work and gave his suggestions for dinner” (Female, 27, White, Upper middle class).

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“..but **I usually try to talk not too loud on the bus** because I can't stand when other people do. **I was also pressed for minutes so I had to cut it short. I was probably a little louder than I should have been and it was a long conversation**” (Female, 18, Hungarian, Middle-class).

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“**If I'm not being rude to anybody then I'll use the phone because I am bored or I have to**” (Female, 18, White, Upper-middle)

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Participants reacted negatively to the fact that cell phones rendered them accessible to others at all times. This sense of unregulated access further supported the notion that participants felt defenseless against the intrusion of cell phone calls, even their

own! Sixty-nine out of 171 subjects reported that always being accessible to others, even when one may not want to be, was a negative aspect of owning a cell phone. While having a cell phone may make it easier for people to get in touch with you and that may decrease the likelihood of missing important calls, having a cell phone makes it easier for people to get in touch with you, even when you do not want to be “found”.

**Table 12. Open-ended responses related to being too easily accessible via cell phone**

<b>Responses related to being too easily accessible via cell phone</b>	<b>Frequency</b>
“I am always found.”	25
“People are always calling me for stupid reasons.”	23
“I am always available, even when I don’t want to be.”	6
“Annoying, when I want to be left alone.”	3
“You have no reason not to call/answer.”	3
“People you do not want to speak to calling.”	5
“It’s like an electronic leash.”	4
“Girlfriend calling too much/Boyfriend having constant tabs on where I am.”	
“Daughter sends too many text messages.”	
<b>Total # of Responses</b>	<b>69</b>

Perhaps the language of legitimate use reflected a sense of defensive self-justification for violating the norms of social behavior. The assertion that “I ONLY USE MY CELL PHONE IN PUBLIC WHEN IT IS AN EMERGENCY OR IMPORTANT” then becomes a defensive stance against feelings of powerlessness that the technical device facilitates when an incessant ring demands attention. By establishing that most of one's own cell phone conversations are initiated by others, one can diffuse the responsibility of one's own rude public cell phone behavior.

On average, participants rated their own cell phone use as somewhat rude. According to the data, when the public cell phone rudeness scale score on the self survey was compared with the item "I use my cell phone in the same ways that everyone else does", the more I admit to "rude" cell phone behavior, the more I think everyone uses their cell phone in the same ways that I do. Conversely, this correlation also means that the less that I think I use it inappropriately, the less I think that I use it like everyone else. In addition, based on the results of this study, the more that people used their cell phones, the more accepting they were of other people's cell phone use, as well as the more they admitted to their own "rude" cell phone use. In the characterization of the average cell phone user, many respondents did not have any particular definition other than stating that the average cell phone user was "normal". This finding could highlight how the characterizations of public cell phone users may be changing. Perhaps it is also an indication that the frequency of cell phone use in public is facilitating the integration of cell phones into public life to where the norms around public behavior are changing to better accommodate public cell phone use.

Personal attitudes about "rude" cell phone behavior may be a reflection of the tension created when norms around public behavior are being contested and changed. What are people objecting to when they respond negatively to other people's cell phone use? People could be reacting to the degree of publicness of private phone conversations. Perhaps they are also reacting to the context in which the conversation is happening. Does this response change based on the type of public space? What is acceptable to do in a park may not be acceptable to do on a bus. Does the specificity of the degree of "publicness" of public space relate to the proximity of others? If we feel

too close (physically or psychologically) to another stranger do we feel out of control of what is happening in that space?

All of the responses to both questionnaires could be a representation of the process by which we become accustomed to a new form of public behavior. Can we go as far as saying that the perception of "rudeness" of public cell phone behavior may be a transitory moment? The impact of the use of personalized communication technology in public on face-to-face interaction is being negotiated. We know from the history of technological advancement that new devices are often first met with resistance and with fear and at times rebuke. The "dangers of television" were hotly debated at the time that television became more affordable and more and more people were able to have a television in their home. The majority of the legislation around the use of cell phones in public has occurred in relation to highway safety. While concerns around levels of attentiveness while on one's cell phone and driving are legitimate, the tone of the legislation has taken on a moralistic tone. When the discourse of morality is invoked around the changing of norms is worthy of further investigation.

*Satisfying ourselves in public:*

The intimate space created when one is speaking on a cell phone in public makes it appear as though people are appropriating public space for personal use with a disregard for others' presence. This "intimacy" makes those in close proximity to the public cell phone user "lose face" (Goffman, 1982). Perhaps unaware of their social faux pas, the cell phone users appear to be not present and therefore not using public space in appropriate ways. This lack of presence characterizes the use of personalized

communication technology as it attempts to render into reality the possibility of being “in two places at the same time”.

The paradoxical nature of cell phone use in public causes cell phones to be as much facilitators of anxiety and anger as of comfort and entertainment. The cell phone can be a tool of surveillance and an “electronic leash” as much as it can be a means to subvert power, whether it is through avoiding ones' parents or ditching the boss. For as much as we cringe at the forced voyeurism of overhearing other people’s cell phone conversations in public, we are enticed by the notion of telling others about the intimate nature of our own lives. We flirt with breaking the norms of public behavior. There is something very sexual in nature about a sense of pluralistic ignorance. We may be at once “outraged” by the knowledge that there are people who purposefully violate social norms and we may distance ourselves publicly from “those people”, while privately we may ourselves violate those norms (Foucault, 1990).

The perception of the lack of public safety and a tone of social anxiety shadowed the participants’ responses about their own public cell phone behavior. This sense of anxiety while in public could be a consequence of the non-stop chatter via mainstream United States news media of the persistent “terrorist threat”. In addition, this study was conducted in New York City, a little more than one year after the events of September 11<sup>th</sup>, 2001. The borough of Staten Island was severely impacted by the losses. Almost ten percent of all of the lives lost in the World Trade Center were from Staten Island. Whatever the motivation for people’s expression of their need for security while in public, their emotional response to their own cell phone use reflects the amount of comfort they get from public use of personalized communication technology.

Participants' reliance on their cell phones as a source of comfort was discussed directly in some of the open-ended responses. While some of these stories could reflect participants' desire to justify their use of their cell phones in public as legitimate, and as a means of distancing themselves from the "bad cell phone users", these stories are compelling in terms of the psychological impact that the use of personalized communication technology in public has on its users.

*Q: Why do you have cell phone conversations in public?*

**"Because when I am standing by myself it is comforting"**

(Female, 18, White (American), Upper-middle)

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"When I was walking home at 5PM during the fall after school, there were a lot of groups of boys hanging around the area. I have a big **fear of being alone especially walking out in public alone** and because it was getting dark I was terrified. I used my phone as my comfort. I didn't have any minutes left because my phone card was up but I felt much safer. It was a very 'interesting' conversation" (Female, 18, White, Middle-class).

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**Age differences:**

Younger people liked having a cell phone more than older people did. They used it more often and indulged in its use when they were in public more than older participants did. Using one's cell phone in public when one is bored is something that

younger participants did more often than older participants. The older participants were more concerned with the negative consequences of public cell phone use.

The frequency of use by the participants who were under 25 may have contributed to the finding that they thought that they had used their cell phones in the same ways that others did more than those over 25. Those under 25 saw themselves as more like the average cell phone user. What does this mean? More investigation into the meaning of the characterization of the average cell phone user is needed before any definitive claims can be made, yet based on these findings, it may be that those who are older are not as readily adaptable to the integration of these devices into their daily lives. Or perhaps, those over 25 use their cell phones differently from "the average cell phone user" and *are* more conscientious in their use. How the characterization of the average cell phone user is intertwined with the characterization of youth is something that is certainly worthy of further investigation.

Gender differences:

In the reported conversations that were overheard in public by participants, it was noted that most of the "rude" behavior that was recorded involved women who were exposing the intimate details of their relationships or who were emotionally responding to a cell phone call that they were having in public.

"I heard a **young girl** accusing her boyfriend of cheating on her. She called him every name in the book... this girl **did not care who is listening**" (Male, 22, White, Working-class).

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“There was the girl who discussed her sexual life. I was annoyed because nobody cares what she does with her b-friend.... That people should respect others and keep their conversations private”(Female, 21, White, Upper middle-class).

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“Yesterday in the food court in the mall, a girl behind me was a having a conversation with a friend about her boyfriend and her were going to the movies and at the same time she was hooking up with some other kid at the mall... It must suck to be her boyfriend” (Male, 22, White, Middle-class).

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“A teenage girl was talking extremely loud so everyone could hear her about one of her sexual encounters. Some things need not be said in public places... I don't think someone's personal business needs to be known by the public” (Female, 18, White, Upper middle-class).

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“A girl was calling a guy telling him to meet her at her house because she wanted to fuck. I broke out in loud laughter...She was talking loud about how she needed to fuck him” (Male, 19, Black, Middle-class).

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“I can't remember the details of the conversation but a **girl** got into a **huge argument with her boyfriend** on the bus. She was yelling at him and cursing him out. They would keep hanging up on each other and then keep calling back. I looked out the window because it is rude to stare I was amused but at the same time annoyed it was funny to hear **how pathetic they sounded** but annoying **because she was announcing her business to everyone**. The fact that this girl **would embarrass herself like that**” (Female, 20, White, Middle-class).

This gender difference was quite remarkable. In an effort to explain this result, without the benefit of direct research on the issue, this result could indicate the ways in which participants judged the behavior of others in light of the absence of a script for public cell phone behavior. As was indicated in the introduction, when observers have no available script for the observed behavior, then they are more likely to judge the behavior based on the schema they have for the actor involved in the behavior (Green, Lightfoot, Bandy & Buchanan, 1985). If this is the case, then observers, without the availability of a specific script for public cell phone behavior are utilizing their schemas for how women are expected to behave in public to inform their social judgements of that behavior. In addition, participants may have a script for public cell phone behavior, in addition to a characterization of the average cell phone user. However, the ways in which this leads to a violation of the social expectation of the public behavior of women may contribute to the negative dispositional attributions made about the female cell phone users.

**Conclusion: Public vs. Private Behaviors and its relationship to public vs. private space.**

People go into public space with the expectation that it will be used as non-exclusive space. This research indicates that the use of cell phones in public violates this expectation via the cell phone user appropriating public space for their exclusive needs. The ways that stories of public cell phone conversations are told reveal that this public, "private behavior" traps the observer in a situation where they may perceive a lack of control around "losing face". The social consequence of this is anxiety in the observer and animosity toward the public cell phone user as well as a loss of access to public space.

Through blurring the boundaries between private and public behavior, public cell phone users are complicit in a sort of "reverse voyeurism" that renders the observer vulnerable to overhearing the intimate details of the cell phone user's life. If we are bombarded with the personal information of others, unsolicited by ourselves, we feel in some way responsible for that information. With no channel to react, our recourse seems to lie in either nonverbal, body language or passive aggression toward strangers.

Does the power of personalized virtual communication in public overshadow the impact it has on face-to-face interactions with strangers? Or are we becoming "virtual squatters" in public space in that through appropriating public space for our own personal needs, we are in some way subverting the power of the control of public space? From its very inception, the personal home computer was billed as a tool to promote the ideals of the White male-headed, middle-class, heterosexual family household, as well as the venturing, freedom loving, fast paced, social (youthful) individual. Subverting this

impression has been the pastime of most technophiles, through porn, hacking, pranks and the passing of subversive knowledge. The building of queer communities online, the revamping of racist and sexist histories, a bridging of the “digital divide”, all indicated other uses of the Internet as an alternative media and organizing tool to defy the racist/classist/sexist overtaking of the mainstream media by corporate conglomerates. Do mobile communication devices like cell phones allow this process of subversion to happen much more quickly as we move through physical space?

With privatization, and the standardization of environments via “quality of life” laws, public space becomes a commodity (Cumiskey, 2001; Smith, 1996). There is a privileging of the consumer, of the executive, and of the tourist as the only legitimate users of public space. All of the conveniences of life, and the development of new technologies, are now geared towards the advancement of the individual, the illusion of freedom, eternal youth, and the hope and happiness that “progress” and speed of movement brings. It is well recognized by scholars today that with globalization comes the advancement of identity politics and individualism and the undermining of a sense of community and collective action (McMicheal, 2000).

So what is the connection between individualism and the push for the personalization of communication technology? With the mass production of technological devices, one might say that the idea of personalization is as oxymoronic as a belief in individualism in its truest form in our society. Yet users do believe in this “myth of individualism”. Through the use of personalized communication technologies in public, one can create a social domain of one's own making. Through the initiation of a cell phone call in public, the user has the ability of making remote others virtually

present in the user's current context. While not physically present, through the cell phone interaction, the remote other is made "virtually", and psychologically, present to the cell phone user. This ability may be a means through which the user is asserting themselves into the lives of others and alleviating feelings of loneliness while amongst strangers in public.

At the core of the push for personalization and individualism is the desire to be recognized outside of the realm of the masses. Yet, techno-paradoxically, through the use of personalized communication devices, one also benefits from the anonymity of non face-to-face interaction. This interplay between recognition and anonymity may make the boundaries between what is appropriate and inappropriate public behavior, increasingly blurred. If one is feeling cloaked in the anonymity of public life in conjunction with all of the cloaking devices utilized via communication technology, then one may believe that one may be relieved of the demands of social expectations. Is it as easy to disengage from the physical world as it is in virtual space? Do communication devices facilitate an increased sense of anonymity while in public? Can one sign-off, mentally, from the physical world in the same way that one does in the virtual realm? Conversely do we replicate the social expectations of the physical world in the virtual world?

With the passing of the USA Patriot Act of 2001, it is now our patriotic duty to compromise our own personal privacy for the benefit of public, "national security". We live in a society that now gives us the right to spy on our neighbors and gives our neighbors and our government the right to spy on our private activities in an effort to ensure the public safety of all. At the signing of the Act into law on October 26, 2001,

President George W. Bush acknowledged that the surveillance of communications had been updated to include the use of new personalized communication technologies. “Surveillance of communications is another essential tool to pursue and stop terrorists. The existing law was written in the era of rotary telephones. This new law that I sign today will allow surveillance of all communications used by terrorists, including e-mails, the Internet, and cell phones” (transcript of public remarks made at the White House on October 26<sup>th</sup> 2001). Does this invasion of our private world in fact increase our sense of public security or are we presented with the ultimate techno-intimacy paradox: that nothing is ever really public nor is anything ever really private?

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