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WALSH AND WHITE

Me, My Mobile, and I:

The Role of Self- and Prototypical Identity Influences in the Prediction of Mobile Phone Behavior

SHARI P. WALSH¹ AND KATHERINE M. WHITE

School of Psychology and Counselling

Queensland University of Technology

This study examined the effect of and relationship between self- and prototypical identity influences on high-level mobile phone use from a theory of planned behavior (TPB) perspective. Participants were 252 university students who completed 2 questionnaires, 1 week apart. The first questionnaire assessed the standard TPB constructs (attitude, subjective norm, perceived behavioral control), as well as self- and prototypical identity influences. The second questionnaire assessed level of mobile phone use in the previous week. Support was found for the TPB in predicting high-level mobile use intentions and behavior. Self-identity and prototype similarity, but not prototype favorability, also significantly predicted intentions. The effects of prototype similarity on intentions were mediated via self-identity processes.

¹ All correspondence concerning this manuscript should be addressed to Shari Walsh, School of Psychology and Counselling, Level 3, L Block, Queensland University of Technology, Beams Road, Carseldine, Qld, 4034, Australia. E-mail: sp.walsh@qut.edu.au

Mobile phone ownership and use is prolific in many countries, with the numbers of people owning and using mobile phones rising rapidly in recent years. In Australia, like most industrialized countries, over 80% of the population owns a mobile phone. In addition, the level of mobile phone use, particularly short message services (SMS), is increasing disproportionately quickly (Allen Consulting Group, 2004). Several factors (e.g., call costs falling, improved coverage) have contributed to increased mobile phone use in Australia (Allen Consulting Group, 2003). Mobile phone technology is rapidly advancing, with individuals able to send and receive photographic images, video clips, and e-mail via their mobile phones, extending their functionality and potential use.

Despite the prevalence of mobile phone use, there has been little research undertaken to understand and explain this phenomenon from a psychological perspective. Most previous research has been grounded within a sociological (e.g., Carroll, Howard, Peck, & Murphy, 2002; Ling, 2000; Taylor & Harper, 2003) or communication theory framework (e.g., Leung & Wei, 2000; Ozcan & Kocak, 2003) and has focused primarily on the youth market. These studies have reported that owning and using a mobile phone, particularly one with advanced technological features, symbolizes status among peers (e.g., Ling, 2000; Ozcan & Kocak, 2003) and is a form of identity expression (e.g., Carroll et al., 2002; Srivastava, 2005) for many users. While previous research has provided valuable insights into differing forms of mobile phone use, the information gained is more descriptive than that obtained in psychological research that seeks to improve understanding of behavioral foundations of social phenomena.

Mobile phone use has the potential to result in positive and negative outcomes. Positive outcomes, such as facilitating social networks, provision of feelings of safety and security (particularly for females), and utility in organizing and managing daily activities are benefits reported by many users (Walsh & White, 2006). However, a number of negative outcomes are increasingly becoming evident. First, many people, especially adolescents and young adults, are experiencing financial difficulties arising from excessive mobile phone use (Australian Communications Authority, 2004). Second, schools and educational institutions report that inappropriate use of mobile phones during classes is leading to increased distraction and disruption among students, thus reducing educational outcomes (Hill, 2000). Third, mobile phone use is illegal when driving in Australia. However, it is estimated that up to 30% of people still use their mobile phones while driving. As recent studies have revealed that using a mobile phone when driving

increases the risk of accidents fourfold, this continued behavior represents a significant risk to road safety (McEvoy et al., 2005). Finally, high-level mobile phone use is reportedly resulting in long-term health risks, although the evidence remains controversial and inconclusive (e.g., Kundi, Mild, Hardell, & Mattsson, 2004; Lönn, Ahlbom, Hall, & Feychting, 2005).

Investigation of psychological influences on mobile phone use is expected to provide important applied information so that strategies aimed at reducing inappropriate and problematic use may be designed. A useful model for investigating the underlying determinants of mobile phone use, from a social psychological perspective, may be provided by the theory of planned behavior (Ajzen, 1988, 1991).

Theory of Planned Behavior

The theory of planned behavior (TPB) is an extension of the theory of reasoned action (TRA; Fishbein & Ajzen, 1975). Cognitions are posited to underlie behavior, which results from a rational, systematic evaluation of salient information. In the TRA, *behavioral intentions*—that is, the individual's motivation to perform the behavior—are posited to be the most proximal determinant of behavior. Behavioral intentions are believed to be based on the relative importance of two components: attitudes and subjective norms. *Attitudes* represent the individual's overall (positive or negative) evaluations of the behavior. *Subjective norms* reflect the individual's perception of pressure from important others to perform or not perform the behavior. According to the TRA, behavioral intentions are more likely to be formed when favorable attitudes are held and when individuals perceive that important others value and expect the behavior. The strength of behavioral intention subsequently predicts behavior (Fishbein & Ajzen, 1975).

To improve the prediction of nonvolitional behaviors, a third factor, perceived behavioral control, was added to the TRA constructs of attitudes and subjective norms, thus forming the TPB (Ajzen, 1988, 1991). *Perceived behavioral control* (PBC) refers to the level of control an individual believes he or she has over internal and external factors inhibiting performance. When PBC is high, the behavior is viewed as achievable, resulting in a higher likelihood that the individual will form behavioral intentions (Ajzen & Madden, 1986). In contrast to the TRA, in which intention alone predicts behavior, in the TPB, both PBC and intention are posited to directly predict behavior, with intention being predicted by attitudes, subjective norms, and PBC.

Although the TPB has been found to effectively predict intentions and behavior across a number of domains explaining, on average, 29% of the variance in behavior and 39% of the variance in behavioral intentions (Armitage & Conner, 2001a), a large proportion of the variance in intentions and behavior remains unexplained in most studies. In order to improve behavioral prediction, it has been suggested that additional variables specifically related to the behavior be incorporated into the model (e.g., Conner & Armitage, 1998; Sutton, 1998). Given that mobile phone use previously has been linked with identity factors, the incorporation of identity constructs within the TPB in this study may be a useful addition to the model when seeking to understand people's mobile phone use.

Self-Identity

An individual's *self-identity* is comprised of a combination of enduring characteristics, such as internalized goals, values, moral concerns, and affective components, as well as externalized roles and behaviors (Gergen, 1971; Stryker, 1987). Self-identity is expressed by the way in which people interact with the environment, with the effect varying as easily accessible beliefs and attitudes become salient (Conner & Armitage, 1998; Prentice, 1987). One way in which individuals reflect their self-identity is through their ownership and use of material objects.

Possessions that can be individualized and used as a means of self-expression are more likely to be valued if they reflect a person's self-identity (Prentice, 1987). Many mobile phone users have reported that they personalize the features (e.g., ring tone, display) on their phone to reflect their personal preferences, suggesting that mobile phones are a form of self-identity expression. In addition, many mobile phone users have reported that mobile phone use is an integral part of their lives (Carroll et al., 2002; Ling, 2000), indicating that mobile phone use plays an important part in many mobile phone users' self-identity.

Investigating the relationship between self-identity and behavior in terms of how important behavioral performance is to an individual's self-identity is based on Stryker's (1987) role identity theory. Behaviors that are positively reinforced are likely to be repeated, consequently becoming a highly salient and fundamental part of the individual's self-concept. When the behavioral performance is congruent with the individual's self-concept and is perceived as producing positive outcomes (e.g., increased self-esteem), the behavior is likely to become a valued part of the individual's self-identity (Gergen, 1971). Self-identity measures that assess the importance or value of the target behavior to the individual in order to predict

behavioral performance are particularly applicable to habituated behavior (Charng, Piliavin, & Callero, 1988). As mobile phone use is a regular behavior for many users and has been found to produce positive outcomes, it may be assumed that being a mobile phone user is an important role in many people's lives. As such, a role-based self-identity measure is included in the present study.

The addition of role-based measures of self-identity in the TPB, assessed in terms of behavioral importance, has significantly improved prediction of numerous behaviors, including blood donation (Armitage & Conner, 2001b), organic food consumption (Sparks & Shepherd, 1992), and recycling (Terry, Hogg, & White, 1999). Self-identity has been found to explain, on average, an additional 1% of the variance in intention over the TPB predictors, with the effect strongest for behaviors in which self-identification is salient and the behavior is congruent with the self-concept (Conner & Armitage, 1998).

It should be noted that role identity measures have received criticism for a number of reasons. First, it has been suggested that role identity measures may make behavior cognitively salient, potentially strengthening the impact of the construct in the prediction of intentions primarily as a result of the salience effect (Sparks, Shepherd, Wieringa, & Zimmermanns, 1995). Second, it has been suggested that role identity measures may assess past, rather than intended behavior (Fekadu & Kraft, 2001). Although these constructs are related, with repeated behavior generally increasing the value of the role to one's identity (Charng et al., 1988), past behavior does not appear to be a proxy measure of self-identity with respect to mobile phone use. Some users engage in less mobile phone use over time as a result of a number of factors (e.g., the novelty of the new device wears off), while others increasingly incorporate mobile phone use into their everyday lives (Carroll et al., 2002), thus increasing the value of the behavior to their sense of self.

In addition, role-based self-identity previously has been found to predict intentions and behavior, independent of past behavior (e.g., Sparks & Shepherd, 1992). Finally, Fishbein (1997) suggested that as role identity measures reflect an individual's self-image (in that the individual sees himself or herself as a person who performs the behavior), they may serve as an alternative measure of intention, given that people are more likely to engage in behaviors that are consistent with their self-image. Reports of intercorrelations between role-based self-identity and intention, however, have not suggested a presence of multicollinearity between the two constructs (for a review, see Conner & Armitage, 1998).

In addition to the measurement issues surrounding self-identity, more recently researchers have raised some theoretical distinctions related to the construct. It has been proposed that the more explicit externally, rather than internally, determined self-identity factors contribute to our understanding of the relationship between self-identity and behavioral performance. In their studies of consumer conduct (Mannetti, Pierro, & Livi, 2002) and recycling (Mannetti, Pierro, & Livi, 2004), Mannetti and colleagues argued that individuals are influenced by images of behavioral performers. They stated further that similarity to a prototypical consumer or behavioral performer influences behavior as individuals engage in behaviors that confirm their sense of who they are.

Similar to studies investigating the influence of prototypes or images of typical people who perform a behavior (e.g., Gibbons & Gerrard, 1995; Gibbons, Gerrard, Blanton, & Russell, 1998; Thornton, Gibbons, & Gerrard, 2002), Mannetti et al. (2002, 2004) found that individuals who possess similar characteristics to an image of a typical behavioral performer were more likely to engage in behavioral performance. Mannetti et al. (2002; 2004) concluded that individuals express their identification with typical characteristics by engaging in the relevant behavior. Thus, these authors argued that similarity to a prototype facilitates self-expressive behavior.

Although Mannetti et al.'s (2002, 2004) research suggests that expression of characteristics typifying behavioral performers influences behavior, it remains unclear whether identification as a behavioral performer (i.e., role identity) or self-expression of characteristics typifying behavioral performers (i.e., prototypical identity) is most influential on behavior. As such, further investigation is required to determine the relative effects of self-expression of prototypical characteristics and self-identity on behavior. Thus, the present study aims to investigate the relationship between self-expressive (or prototypical) identity and role-based self-identity by measuring a behavior that has highly salient images (prototypes) and previously has been connected to aspects of self-identity (e.g., Carroll et al., 2002; Ozcan & Kocak, 2003).

Prototypical Identity Influence

Drawn from the prototype/willingness model (PWM), *prototypes* refer to the images individuals hold of typical people who perform specific behaviors (Gibbons & Gerrard, 1995; Gibbons et al., 1998). Two basic assumptions underlie formation of a behavioral prototype. First, the category the prototype

represents must be distinctive and readily identifiable (Smith & Zarate, 1992); and second, the image must be salient (Gerrard et al., 2002). Prototypes can be based on the perceived characteristics of known or unknown individuals who perform a behavior, including family members and peers (Gibbons et al., 2004); social constructions resulting from advertising (Richins, 1991); or observations of people engaging in the relevant behaviors (Setterlund & Niedenthal, 1993).

Prototypes are hypothesized to reflect a form of social influence in that individuals compare themselves to the prototype and decide whether the prototype reflects desired or undesirable characteristics, or is representative of a desired membership group (Gibbons & Gerrard, 1995). According to the PWM, *prototype perception*, the individual's overall evaluation of the image, and *prototype similarity*, the degree to which an individual is similar to the prototype, influence individuals' willingness to engage in specific behaviors. In PWM studies, ratings of prototypical images—assessed by participants indicating how much predetermined adjectives (e.g., *cool*) describe “typical” people who perform the relevant behavior (e.g., Gibbons & Gerrard, 1995; Gibbons et al., 1998)—form the foundation of prototypical identity measures.

However, within the PWM literature, there is an absence of standard measures to assess of prototype perception and similarity. Prototype perception has been measured by a number of methods, including averaging prototypical image ratings (Gerrard et al., 2002), calculation of an interactive term between prototype similarity and prototypical image ratings (e.g., Gibbons & Gerrard, 1995; Gibbons, Helweg-Larsen, & Gerrard, 1995), or determining latent constructs underlying images (e.g., Gibbons et al., 1998, 2004). Prototype similarity has been measured by direct questioning, such as “How similar are you to the prototype?” (e.g., Gibbons, Gerrard, & Boney-McCoy, 1995), calculation of a self-prototype match score based on the absolute difference score between participants' ratings of how much prototype image adjectives describe themselves and the prototype, respectively (e.g., Gibbons & Eggleston, 1996; Mannetti et al., 2002); or direct comparison of prototype image and self-image ratings in regression analyses (e.g., Gerrard et al., 2002).

The underlying assumption in prototype identity research is that individuals who rate the characteristics as typifying the behavioral performer hold a favorable impression of the prototype and, thus, are willing to engage in the behavior to obtain the desired characteristics. Specifically, the PWM posits that the more favorably a prototype is perceived, or the more similar an individual perceives himself or herself

to be to a favorable prototype, the more willing the individual will be to perform the relevant behavior (Gibbons & Gerrard, 1995; Gibbons et al., 1998).

Prototypes have traditionally been assessed with respect to risky health behaviors (e.g., Gibbons & Eggleston, 1996; Gibbons & Gerrard, 1995; Gibbons, Gerrard et al., 1995). However, mobile phone use may be considered by many to be a non-risk behavior. As non-risk images have been found to influence behavior (e.g., Gerrard et al., 2002; Niedenthal, Cantor, & Kihlstrom, 1985; Ravis, Sheeran, & Armitage, 2006) and mobile phone use may present a potential health risk for some users (e.g., Leena, Tomi, & Arja, 2005; Lönn et al., 2005), the inclusion of prototypical identity influences to predict mobile phone use in the present study is supported.

Further, recent research has incorporated prototypical identity constructs within the TPB framework (Mannetti et al., 2002, 2004; Ravis & Sheeran, 2003; Ravis et al., 2006). Mannetti et al. (2002) incorporated stereotypical (prototypical) identity constructs into the TPB to examine the effect of prototype similarity on intentions (rather than willingness) to purchase three consumer goods: mobile phones, backpacks, and watches. Prototypical identity influence measures were included on the basis that individuals' prototypical images of purchasers of consumer goods may be highly influenced by advertising. The authors posited that intention to own the product reflected the consumers' self-identity, as they were believed to desire characteristics of the prototype, subsequently wanting to be similar to the prototypical image. Participants rated predetermined lists of adjectives to measure stereotypical identity (prototype) and actual self. Prototype similarity was calculated as the absolute difference between the participant's actual self- and stereotypical (prototypical) image ratings. It was found that subjective norm and prototype similarity had the strongest relationship with intentions to purchase a mobile phone, leading the authors to conclude that individuals who are similar to a prototypical image engage in self-expressive behavior by performing behaviors consistent with their self-image (Mannetti et al., 2002). Similarity to a prototype has also been found to significantly predict recycling (Mannetti et al., 2004), exercise behavior (Ravis & Sheeran, 2003), and health-protective and health-risk behaviors (Ravis et al., 2006) within a TPB framework.

Prototype similarity measures comprise a form of self-evaluation, in that individuals rate how similar they are to the prototype (Gibbons, Gerrard et al., 1995) or a self-prototype match score is

calculated (Gibbons & Eggleston, 1996; Mannetti et al., 2002, 2004). Yet, the relationship between external (prototypes) and internal self-identity influences is not directly tested. It is possible that individuals consider how similar they are to the prototype and that this similarity informs self-identity, with individuals subsequently performing behaviors that are consistent with their self-identity. Thus, the influence of prototypes may be via self-identity, particularly when the behavioral performance is highly congruent with the individual's self-concept. As such, a key aim of present study is to test whether self-identity mediates the influence of prototypical identity on behavioral intention; specifically, intention to engage in high-level mobile phone use.

The Present Study

The present study has two main aims. First, the study aims to test the validity of the TPB as a model for predicting and understanding mobile phone use. It is expected that these findings will increase understanding of factors influencing mobile phone behavior. Second, the research seeks to improve understanding of the effect of self–other relations on behavior by assessing the role of self- and prototype identity influences within the TPB, as they relate to mobile phone use. The incorporation of separate self- and prototype identity measures into the TPB enables direct comparison of self- and prototypical identity influences on intentions and behavior and are, thus, expected to improve understanding of the effect of different sources of identity influence on mobile phone use.

The following hypotheses are proposed:

Hypothesis 1. Attitude, subjective norm, and PBC will predict intention to engage in high-level mobile phone use.

Hypothesis 2. Intention and PBC, but not attitude or subjective norm, will predict high-level mobile phone use.

Hypothesis 3. The addition of self-identity and prototypical identity influence measures to the TPB will improve prediction of intention to engage in high-level mobile phone use over the TPB alone.

Exploratory analyses were conducted to identify which prototype construct would be the most influential predictor of intention to engage in mobile phone use. Finally, exploration of the relationship between self- and prototypical identity is expected to determine whether the effect of prototypes on behavior is mediated through self-identity.

Method

Participants

The participants were 252 introductory psychology students (62 male, 25%; 190 female, 75%) who were between the ages of 16 and 54 ($M = 22.8$ years, $SD = 7.6$). They participated in exchange for partial course credit. Of the participants who completed the initial questionnaire, 226 (90%) returned to complete the follow-up questionnaire 1 week later. Sample characteristics remained constant during the study.

Design

The study was prospective in design, with two waves of data collection, 1 week apart. Prior to the first wave of data collection, a pilot study was conducted to obtain descriptors of typical mobile phone users. The most common responses formed prototypical image descriptors in the main questionnaire, which were used in the first wave of data collection.

The Wave 1 questionnaire tested the TPB variables and self- and prototypical identity influence variables as they related to high-level mobile phone use. The second wave of data collection was comprised of a questionnaire assessing level of mobile phone use during the previous week.

Measures

Target Behavior

The target behavior was high-level mobile phone use, with *mobile phone use* defined as “make or receive calls, SMS (short message service) and MMS (multimedia messaging service), or other activities/uses.” High-level mobile phone use was operationalized as the number of days the participant used a mobile phone for all purposes “at least 5 times a day.” The target level of five 5 times a day was based on previous research investigating mobile phone use among the Australian population (Bianchi & Phillips, 2005; Mathews, 2004). In addition, pilot-study participants reported using their phones an average of 3.88 times a day, confirming that using a mobile phone at least 5 times a day reflects the study’s target behavior (i.e., high-level mobile phone use) within this population.

Elicitation Study

An elicitation study was conducted to identify prototypical identity descriptors for the main questionnaire that was used in Wave 1 of data collection. Participants for the elicitation study were 18

Introductory Psychology students ($M = 22.6$ years, $SD = 6.3$) with characteristics that were broadly representative of participants in the main study. The students completed an open-ended questionnaire in which they were asked to write adjectives describing the typical mobile phone user (see Gibbons & Gerrard, 1995). The eight most frequently occurring adjectives formed the prototype perception measure in the main questionnaire.

Wave 1: Main Questionnaire

The Wave 1 questionnaire consists of items measuring the TPB variables, as well as self- and prototypical identity variables in relation to high-level mobile phone use. The majority of the items were positively worded, with some negatively worded items incorporated in order to reduce response bias. Items were scored on a combination of 7-point Likert and semantic-differential scales.

TPB Variables

Intention. Three items assessed the strength of intention to perform the target behavior. A sample item is “I do/do not intend to use my mobile phone (i.e., make or receive calls, SMS, MMS, or other activities/uses at least 5 times a day in the next week.” This item was rated on a 7-point scale ranging from 1 (*do not intend*) to 7 (*do intend*). The measure of intention was reliable, with an alpha coefficient of .89.

Attitude. Attitude, which is the individual’s overall evaluation of performing the target behavior, was assessed via four 7-point semantic-differential scales (e.g., *unpleasant/pleasant*). The attitude measure was reliable, with an alpha coefficient of .84.

Subjective norm. Subjective norm, which is perceived pressure from important others to perform or not perform the target behavior, was assessed via three items. A sample item is “Those people who are important to me would want me to use my mobile phone at least 5 times a day in the next week.” The items were rated on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The subjective norm measure was reliable, with an alpha coefficient of .81.

PBC. PBC, which represents how much control an individual perceives that he or she has over behavioral performance, was measured with two items. A sample item is “I am confident that I could use my mobile phone at least 5 times a day in the next week.” Items were rated on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). A reliable, albeit slightly low, alpha coefficient of .69 was obtained for the direct measure of PBC.

Identity Variables

Self-identity. Self-identity, which is the extent to which performing a behavior forms part of the individual's self-concept, was measured by three items that were adapted from Terry et al. (1999). The items are "Being a mobile phone user is an important part of who I am"; "I would feel lost without using my mobile phone"; and "I am not the type of person oriented to use a mobile phone." The items were rated on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) and reverse-scored where necessary. The self-identity scale was moderately reliable, with an alpha coefficient of .71.

Prototype similarity. Prototype similarity, which represents how similar an individual is to a prototypical image, was measured by the absolute difference between participants' ratings of how much the characteristics described the prototypical image and their self-image. The eight most frequently occurring descriptors of mobile phone users (*busy, trendy, talkative, popular, contactable, organized, selfish, and socially active*) were obtained from the elicitation study. The adjectives were used to assess prototypical and self-images in the main study.

The following general definition of a prototype was presented:

The following question concerns your images of people. For example, we all have ideas about what typical movie stars are like or what the typical grandmother is like. We are not saying that all movie stars or grandmothers are exactly alike, but rather they share certain characteristics.

(Gibbons, Gerrard et al., 1995, p.87)

Participants were then asked to rate how much each of the eight characteristics describe "a typical mobile phone user." Items were rated on a 7-point scale ranging from 1 (*not at all*) to 7 (*completely*). Later in the survey, participants were asked to think about themselves and to rate how much each of the eight characteristics describe themselves on a 7-point scale ranging from 1 (*not at all*) to 7 (*completely*).

Difference scores between participants' prototypical image and actual self-ratings were summed and averaged to measure how similar each participant's self-image was to the prototypical image. As difference scores represent how different the individual is from the prototype, index scores were reversed to create a prototype similarity index. The prototype similarity index possessed a lower reliability than the other constructs, with an alpha coefficient of .61.

Prototype favorability. Individuals' overall evaluation of the prototype (i.e., prototype favorability) was measured with a single item. Participants were asked "How favorably do you view the image of a typical mobile phone user?" The item was rated on a 7-point scale ranging from 1 (*extremely favorably*) to 7 (*not at all favorably*). The scores were reversed to reflect favorability of the prototype.

Wave 2: Follow-Up Questionnaire

One week after completion of the main questionnaire, participants completed a second questionnaire examining their performance of the target behavior (i.e., high-level mobile phone use) in the past week. High-level mobile phone use was assessed by having participants indicate how many days in the past week they had used their mobile phone at least 5 times per day for any purpose. The item was rated on a 7-point scale ranging from 1 (*not at all*) to 7 (*every day*). Additional items that assessed how much participants used their mobile phone for different uses (e.g., calls, SMS) in the past week were included to increase the reliability of this measure.

Procedure

Participants completed a main questionnaire assessing TPB and identity variables during on-campus testing sessions. They returned 1 week later to complete the second questionnaire assessing level of mobile phone use in the past week. A unique code identifier was used to maintain participants' anonymity and confidentiality and to match the questionnaires.

Results

Data Analysis Overview

The first set of analyses tested the standard TPB model in relation to high-level mobile phone use. First, we examined the effects of standard TPB variables, attitude, subjective norm, and PBC on predicting intention to engage in high-level mobile use. We then examined the role of TPB variables in predicting high-level mobile phone use. The second set of analyses examined the role of self- and prototypical identity within the TPB in the prediction of intention to engage in high-level mobile phone use, as well as high-level mobile phone behavior. Means, standard deviations, correlations, and alpha coefficients of the TPB predictor and criterion variables, as well as self- and prototypical identity variables are presented in Table 1.

-INSERT TABLE 1 ABOUT HERE-

Correlations Among TPB Variables

Intercorrelations among the TPB variables were examined to ensure that each of the variables examined distinct concepts. As shown in Table 1, low to moderate correlations were found between the TPB predictors. As expected, the TPB predictors were moderately correlated with intention and behavior, with intention emerging as the strongest behavioral correlate. All correlations among the TPB variables were significant.

Analysis Predicting Behavioral Intentions

A standard multiple regression was conducted, with intention to use a mobile phone at least 5 times a day in the next week as the dependent variable. Independent variables were attitude, subjective norm, and PBC. As shown in Table 2, the linear combination of TPB variables significantly accounted for 60.0% (59.5% adjusted) of the variance in intention to engage in high-level mobile phone use. All three predictors independently contributed to the prediction of intention.

PBC emerged as the strongest predictor of intention, followed by subjective norm, and attitude. Thus, participants who reported a positive attitude toward high-level mobile phone use, perceived important others' approval for high-level mobile phone use, and perceived control over factors preventing high-level mobile phone use were more likely to intend to engage in high-level mobile phone use. These results provide support for Hypothesis 1, which stated that attitude, subjective norm, and PBC would predict intention to engage in high-level mobile phone use.

-INSERT TABLE 2 ABOUT HERE-

Analysis Predicting Behavior

A hierarchical regression was performed to assess the effect of TPB variables on high-level mobile phone behavior. Intention and PBC were entered at Step 1 as independent variables, with high-level mobile phone use as the dependent variable. Attitudes and subjective norm were entered in Step 2 to confirm whether the effects of these variables on behavior are mediated via intention.

As shown in Table 2, the linear combination of intention and PBC significantly accounted for 51.8% (51.3% adjusted) of the variance in mobile phone use. As expected, the addition of attitudes and subjective norms in Step 2 did not improve the prediction of high-level mobile phone use. Once all of the variables were entered into the equation, intention to engage in high-level mobile phone use emerged as the only significant predictor of high-level mobile phone use. Thus, individuals who intended to use their mobile phone at least 5 times a day were more likely to engage in high-level mobile phone use. These results provide partial support for Hypothesis 2 as intention, but not PBC, predicted high-level mobile phone use.

Correlations Between Self-, Prototypical Identity Variables, and TPB Variables

Intercorrelations among the identity variables were examined to ensure that each of the variables examined distinct concepts. As shown in Table 1, low but significant correlations ($r = .17-.28$) were found between the prototypical identity and self-identity variables, indicating that the measurement of prototypical identity influences was somewhat, but not strongly, related to self-identity. Low to moderate correlations were found between the identity influence variables and TPB criterion variables of intention and behavior.

Analyses Testing the Role of Self- and Prototypical Identity on Behavioral Intentions

A hierarchical regression analysis was performed to examine the effect of self- and prototypical identity influences within the TPB on intention to engage in high-level mobile phone use (Hypothesis 3). The TPB variables of attitude, subjective norm, and PBC were entered at Step 1. Self-identity and respective prototypical identity variables were entered at Step 2 to examine the effect of identity influence factors on intention after controlling for the TPB variables. The results are presented in Table 3.

-INSERT TABLE 3 ABOUT HERE-

The linear combination of TPB predictors significantly accounted for 59.7% (59.2% adjusted) of the variance in intention to engage in high-level mobile phone use. As predicted, the addition of self- and prototypical identity predictors significantly improved prediction of high-level mobile phone use intention, accounting for an additional 5.6% of the variance in intention. Self-, rather than prototypical, identity

emerged as the strongest identity predictor of high-level mobile phone use intention ($\beta = .25, p < .001$). Of the prototypical identity influence variables, prototype similarity was the only significant predictor of intention to engage in high-level mobile phone use ($\beta = .09, p < .05$). Prototype favorability did not significantly predict intention to engage in high-level mobile phone use.

Interactive Effects

To test whether similarity to a favorable prototype influenced mobile phone use intentions, an interactive term of Similarity \times Favorability was computed and entered at Step 3 of the hierarchical regression analysis. Centered prototype predictors were used at Step 2 to control for component main effects and multicollinearity between predictors and interaction terms. The interactive term did not significantly account for any additional variance in mobile phone use intention ($\beta = -.02, ns$). Overall, the results of regression analyses indicate that self-identity is a more influential identity predictor than is prototypical identity.

Mediation Analyses

To test the relationship between prototype similarity and self-identity, mediation analyses were conducted. Following Baron and Kenny's (1986) guidelines, hierarchical regression analyses were used to conduct four tests to establish whether there is a mediated relationship between the variables.

In the first test, the predictor variable (i.e., prototype similarity) must be significantly correlated with the outcome variable (i.e., intention) to establish that there is an independent relationship. As shown in Table 1, prototype similarity was significantly correlated with intention ($r = .26, p < .01$; see also Step 1 in Table 4). To establish the second test that the predictor variable (i.e., self-identity) is significantly correlated with the mediator (i.e., prototype similarity), the mediating variable was treated as an outcome variable in a regression analysis. As shown in Table 1, prototype similarity was significantly correlated with self-identity ($r = .28, p < .01$), subsequently significantly predicting self-identity in regression analysis ($\beta = .28, p < .001$).

-INSERT TABLE 4 ABOUT HERE-

The third test requires that the mediating variable (i.e., self-identity) predicts the outcome variable (i.e., intention), while controlling for the predictor variable (i.e., prototype similarity). Thus, a hierarchical multiple regression predicting intention was conducted with prototype similarity entered at Step 1 and self-identity entered at Step 2. As shown in Table 4, self-identity significantly accounted for additional variance in intention, over and above prototype similarity.

Finally, for full mediation to be present, the effect of the predictor variable (i.e., prototype similarity) should no longer be significant when the effects of the mediating variable (i.e., self-identity) are statistically controlled in the subsequent step. As shown in Table 4, the positive main effect of prototype similarity on intention became nonsignificant once self-identity was entered into the equation. A Sobel test (Preacher & Leonardelli, 2001) using the equation of the third test reveals that self-identity was a reliable mediator of prototype similarity ($z = 4.28, p < .001$).

Analysis Predicting Behavior

A series of hierarchical regression analyses was conducted to examine the effect of identity factors on high-level mobile use within the TPB. Intention and PBC were entered at Step 1; attitude and subjective norm were entered at Step 2; and self-identity and prototype predictors were entered at Step 3. Steps 2 and 3 were included to confirm whether the effects of identity variables on behavior were mediated by intention.

As shown in Table 5, the linear combination of intention and PBC significantly accounted for 51.4% of the variance in high-level mobile phone use, with intention emerging as the only significant predictor of high-level mobile phone use ($\beta = .71, p < .000$). The addition of attitude and subjective norm at Step 2, after controlling for intention and PBC, did not improve prediction of high-level mobile phone use. Finally, inclusion of self-identity and prototype predictors at Step 3 did not significantly improve prediction of high-level mobile phone use.

-INSERT TABLE 5 ABOUT HERE-

In the overall model, intention remained the only significant predictor of high-level mobile phone use. As found in the standard TPB analyses that were reported in the previous section, individuals who

intended to use their mobile phone at least 5 times a day were more likely to engage in high-level mobile phone use.

Discussion

The present research had three main aims. First, it aimed to test the validity of the TPB as a model for understanding high-level mobile phone use. The results of the study support the efficacy of the TPB in the prediction of behavioral intention in that attitude, subjective norm, and PBC predicted intention to engage in high-level mobile phone use. Partial support was found for the utility of the TPB in the prediction of behavior as intention, but not PBC, significantly predicted high-level mobile phone use.

Second, the research sought to improve understanding of how self- and prototypical identity influences affect behavior by incorporating self- and prototypical identity constructs into the TPB model to predict high-level mobile phone use. It was found that self-identity was the most influential identity predictor of intention to engage in high-level mobile phone use. Prototype similarity emerged as the only significant prototypical identity influence to predict mobile phone use intention.

Finally, the study sought to explore whether prototype similarity is mediated by self-identification as a behavioral performer. We found support for the notion that similarity to a prototype influences behavior via self-identity. This result suggests that the effect of similarity to a prototype on intentions is mediated via the impact of similarity to the prototype on an overall sense of self. Individuals who perceive that they possess the characteristics of a typical behavioral performer are more likely to intend to engage in the behavior when the behavior forms part of their self-identity. Results from the study provide important applied information regarding the various factors facilitating high-level mobile phone use. This information can be incorporated into strategies designed to influence appropriate mobile phone use.

The findings of the present study provide considerable support for the efficacy of the TPB in understanding and predicting high-level mobile phone use, with the overall model accounting for a large proportion of the variance in high-level mobile phone use intentions. In support of Hypothesis 1, attitude, subjective norm, and PBC were significant predictors of intention to engage in high-level mobile phone use. These results indicate that an individual's attitude, perception of pressure from important others, and perceived level of control over behavioral performance influence high-level mobile phone use intentions.

In contrast to previous research, which concluded that subjective norm was the weakest predictor of intention in the TPB (Armitage & Conner, 2001a), results from the present study found that attitude, and not subjective norm, was the least significant predictor of intention to engage in high-level mobile phone use. This finding highlights the importance of normative influences on mobile phone behavior. Mobile phone use facilitates contact between family members, social groups, and work colleagues (Taylor & Harper, 2003). As such, it may be that while an individual's attitude plays a role in determining level of mobile phone use, more important is the perceived pressure from important others to answer and reply to calls and text messages received on their mobile phones.

In the present study, the TPB accounted for a larger proportion of variance in behavioral intention (60.0%) than the average amount of variance (39%) found by Armitage and Conner (2001a) in their meta-analysis of TPB studies. It can be concluded that the TPB provided a highly effective model for predicting and understanding high-level mobile phone use intentions. Overall, the results in the present study confirm the efficacy of the TPB in the prediction of behavioral intention (Armitage & Conner, 2001a).

In addition to the prediction of intention, the TPB specifies predictors of behavior. Specifically, PBC and intention were posited to directly influence behavior (Hypothesis 2). The efficacy of the TPB in behavioral prediction was supported in this study, with the overall model significantly explaining 51.8% of the variance in high-level mobile phone use. In line with TPB predictions, the effect of attitude and subjective norm on behavior was mediated by intention. However, with only partial support for Hypothesis 2, intention emerged as the only significant predictor of high-level mobile phone use.

The finding that PBC did not directly predict behavior is inconsistent with the TPB premise that control factors are directly linked with behavioral performance (Ajzen, 1991), as well as meta-analytic findings in which PBC directly predicted behavior, independent of intention (Armitage & Conner, 2001a). However, this finding concurs with other research that has found the effect of PBC on behavior to be mediated by intention (e.g., Cheung, Chan, & Wong, 1999; Conner & McMillan, 1999). Given that mobile phone use is a highly prevalent behavior performed in numerous contexts, the finding that PBC did not significantly predict behavior in this study may be more reflective of the volitional nature of mobile phone use, rather than a lack of support for PBC as a behavioral predictor in the TPB.

The second aim of the study was to investigate the role of identity influences on behavior by incorporating self- and prototypical identity influence measures into the TPB model as predictors of high-level mobile phone use. Support was found for Hypothesis 3, as the inclusion of identity influences in the TPB significantly improved prediction of high-level mobile phone use intentions, accounting for, on average, an additional 5% of the variance in intention to engage in high-level mobile phone use. This finding supports the argument that incorporation of identity influence factors into the TPB improves the predictive ability of the model (e.g., Mannetti et al., 2004; Ravis et al., 2006; Sparks & Shepherd, 1992; Terry & Hogg, 1996).

A goal of the present research was to investigate the relationship between self- and prototypical identity influences within the TPB framework. Self-identity emerged as the strongest identity influence and the second strongest overall predictor (after PBC) of intention to engage in high-level mobile phone use. This result indicates that identification as a behavioral performer is a powerful determinant of subsequent performance, with individuals more likely to perform behaviors that are an important part of their self-identity.

The results in this study are consistent with previous studies finding that inclusion of measures of self-identity in the TPB improve prediction of behavioral intention (e.g., Sparks & Shepherd, 1992; Terry et al., 1999). Additionally, this study confirmed previous research—albeit from sociological and communication theory frameworks—that had found that mobile phone use is an important part of many mobile phone users' self-identity (e.g., Carroll et al., 2002; Ozcan & Kocak, 2003; Srivastava, 2005). The finding that self-identity was the most influential identity predictor of high-level mobile use in this study highlights the need to understand the value of a behavior to an individual's self-identity when seeking to predict and understand behavioral performance.

With respect to prototypical identity influences, prototype similarity emerged as the only significant predictor of mobile phone use intentions. This finding is consistent with previous studies that have found that similarity to a prototype, rather than a favorable evaluation of the prototype, is a more consistent and effective predictor of health-risk and health-protective behaviors (Ravis et al., 2006). Prototype favorability has generally been assumed when individuals rate positive characteristics as being

highly descriptive of the prototype (e.g., Gerrard et al., 2002; Gibbons & Gerrard, 1995; Gibbons et al., 1998).

Although the characteristics used in this study were obtained from a pilot study, it is possible that the descriptors that were obtained and used in the study were not positive enough to evoke a favorable image, subsequently reducing the effect of a favorable image on participants' behavior. Alternatively, it may be that individuals hold mixed views of mobile phone users (e.g., busy, organized, sociable) and that the image of a mobile phone user is not evaluated favorably enough to influence behavior. Individuals who possess these characteristics and, thus, are similar to the prototype may be more likely to engage in high-level mobile phone use because the characteristics are consistent with their self-image.

Previously, it has been argued that similarity to a prototype influences self-expressive behavior as individuals seek to engage in behaviors that enable them to express their identity (Mannetti et al., 2002, 2004). However, the relationship between self- and prototypical identity has not yet been tested directly. In the present study, it was found that the influence of prototype similarity on behavior was mediated by self-identity, indicating that it is the value of the behavior to the individual that serves as the mechanism by which similarity to an image influences behavior. Thus, it appears that individuals who possess characteristics similar to a typical mobile phone user intend to engage in high-level mobile phone use because the behavior is a valued part of their self-identity.

Overall, inclusion of identity influences improved prediction of high-level mobile phone use within the TPB. Self-identity and prototype similarity emerged as significant predictors of intention to engage in high-level mobile phone use, with the effect of prototype similarity being mediated by self-identity. Conceptually, these results indicate that individuals' construction of their identity may be a result, in part, of the incorporation of prototypical characteristics into their self-identity. By comparing themselves to the prototype, individuals may gauge whether they possess characteristics of the typical behavioral performer. If the characteristics and behavior are congruent with their self-conception, they may be more likely to subsequently engage in behaviors that are important to them and that reflect their self-identity (Gergen, 1971).

In addition to furthering the understanding of predictors of mobile phone use, there are several applications for the findings of the present research. Results from this study could be used to design

interventions to reduce problematic high-level mobile use and to promote appropriate mobile phone use so that the risk of financial difficulties and potential health problems arising from high-level use can be minimized. Self-identity was found to be the strongest identity predictor of high-level mobile phone use intentions in this study and mediated the effect of prototype similarity on intentions. These findings indicate that campaigns appealing to self-identity factors would be more influential in influencing mobile phone use trends than would campaigns presenting images of typical mobile phone users. PBC emerged as the most influential predictor of intention to engage in high-level mobile phone use, indicating that high-level users perceive few barriers to using their mobile phones. It may be that campaigns highlighting some barriers to mobile phone use (e.g., cost, fines when driving) may assist in reducing problematic mobile phone use.

Additionally, as inappropriate mobile phone use is a major problem in educational and social settings, strategies encouraging responsible use are needed (e.g., Australian Mobile Telecommunications Authority, 2003). Results from the present study found that subjective norm was an influential determinant of high-level mobile phone use. Thus, incorporating normative influences into campaigns promoting responsible use may be an effective strategy. Family, friends, and peers could be shown to disapprove of inappropriate mobile phone use, reinforcing emerging norms promoting more responsible mobile phone behavior.

Overall, the present research found that attitude, subjective norm, PBC, self-identity, and prototype similarity all played an influential role in determining high-level mobile phone use; but that the influence of prototypes on behavior occurred through self-identity. Thus, a multifaceted—rather than singular—approach incorporating attitudinal, normative, control, and identity factors into strategies designed to influence mobile phone behavior would be most effective.

There are a number of strengths of the present study. To the authors' knowledge, this is the first study to directly test self- and prototypical identity influences as behavioral predictors in one study. In addition, also to the authors' knowledge, this research serves as the first study to use the TPB to investigate high-level mobile phone use. The TPB is a well validated model of behavioral prediction and is well suited to the incorporation of additional predictors (Armitage & Conner, 2001a). By incorporating self- and prototypical identity influences into the TPB, multiple factors affecting high-level mobile phone use could

be established. Although previous research has investigated the role of self- and prototypical identity influences on behavior, these studies have generally investigated single-identity constructs, such as role identity (e.g., Sparks & Shepherd, 1992), self-expressive identity (Mannetti et al., 2002, 2004), or prototypical identity (e.g., Gibbons, Gerrard et al., 1995; Ravis et al., 2006). The inclusion of self- and prototypical identity constructs in one study allowed for investigation into the effect of, and relationship between, self- and prototypical identity influences on behavior.

Additionally, there has been little research into the psychological underpinnings of mobile phone behavior. Previous research into mobile phone use has primarily been conducted from a sociological (Carroll et al., 2002; Ling, 2000; Taylor & Harper, 2003) or communication framework (Leung & Wei, 2000; Ozcan & Kocak, 2003). Investigation of the psychological factors influencing high-level mobile phone use further contributes to our understanding of mobile phone behavior. Given the rising popularity of mobile phone use, the results of the present study provide important applied information that may be used in strategies designed to influence mobile phone behavior.

There are also a number of limitations to the present research. First, sampling limitations are noted. The use of first-year Introductory Psychology students and the high proportion of female participants (75%) may not have provided an accurate sample of mobile phone users. While previous research has noted that there is little difference between genders in the amount of mobile phone use, females appear to use their mobile phones more for social reasons than do males (Lemish & Cohen, 2005; Srivastava, 2005). Thus, they may be more influenced by normative pressures.

In addition, the distribution in this study was skewed toward younger users. Although young adults are prolific users of mobile technology, mobile phone use is highly prevalent among all sections of the population (Allen Consulting Group, 2004). Future research using nonstudent populations with equal numbers of participants in various age groups could help in further understanding mobile phone use across age groups, and identify whether the effects of self- and prototypical identity on behavior differ by age.

Second, the use of self-report measures to assess level of mobile phone use may not have been a reliable measure of actual use. Although additional questions were incorporated into the study to validate participants' reported use, using a diary method or reviewing mobile phone accounts may have provided more accurate data (Cohen & Lemish, 2003).

Finally, two methodological limitations must be noted. The use of a single-item measure for prototype favorability may have limited the ability of the measure to adequately test the effect of a favorable prototype on behavior. Use of multiple measures would assist in better determining the effect of favorable prototypes on mobile phone use. Additionally, the low reliability of the prototype similarity may have affected the results. Development of a more reliable index would be beneficial in future research to better understand the relationship between prototype similarity and self-identity.

An additional consideration is the use of a role-based measure of self-identity in the present study. As role identity develops from engaging in repeated behaviors, especially those with positive outcomes (Charng et al., 1988), it may have been appropriate to include past behavior as a predictor in the current study. While past behavior should not improve prediction of later behavior if the model is sufficient (Ajzen, 1991), consideration of the two constructs simultaneously may further our understanding of the relationship between past behavior and self-identity formation (Charng et al., 1988).

The findings and limitations of the present study highlight a number of areas for further research. Overall, there has been little research investigating the psychological underpinnings of mobile phone behavior. This preliminary study revealed that mobile phone use is a highly complex behavior, influenced by a number of factors. Future research that extends sampling beyond a university environment and includes more males in the sampling population would allow for a more representative assessment of factors influencing mobile phone use in general society.

In addition, the effect of prototypical identity influences on behavior warrants further investigation. Prototypical identity influences are primarily tested in relation to risky health behaviors. However, it could be that mobile phone use is not seen as an inherently risky behavior. Further research investigating the role of prototypical identity influences on non-risk behaviors may improve understanding of the types of behaviors most likely to be influenced by prototypical images. Future research should attempt to ensure that the prototypical image descriptors reflect a highly positive, favorable image to better determine the effects of favorable images on behavior.

Finally, further research comparing the role of, and relationship between, self- and prototypical identity influences on behavior is warranted to establish parameters for each form of identity influence on behavior. As such, future research could investigate the relationship between, and influence of, prototype

similarity and self-identity for a range of risky behaviors (e.g., unprotected sex, binge drinking) and non-risk behaviors (e.g., health-protective behavior, technology use). Research should attempt to disentangle the relationship between, and independent effects of, self- and prototypical identity influences on behavior to enable the parameters of each form of identity influence to be better understood.

Overall, the current study provides considerable support for the utility of the TPB in understanding high-level mobile phone use in that attitude, intention, and PBC predicted behavioral intention, which subsequently predicted behavior. Additionally, support was found for the inclusion of identity influences in the TPB framework as predictors of high-level mobile phone use. The emergence of self-identity and prototype similarity, but not prototype perception or favorability, as predictors of high-level mobile phone use highlights the importance of testing multiple (rather than singular) identity constructs. The finding that prototype similarity was mediated by self-identity indicates that in-depth investigation of the relationships between identity constructs will improve understanding of the sequelae of influences on identity formation and subsequent behavior.

The current study also provides important applied information regarding the psychological underpinnings of mobile phone behavior, which could be used in strategies designed to influence mobile phone use. The present findings provide a basis for the direction of future research to examine the impact of identity influences on an increasingly prevalent social behavior.

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Table 1

Descriptive Analysis of High-Level Mobile Phone Use: Means, Bivariate Correlations, and Alpha Coefficients

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	6	7	8	9
1. Attitude	4.59	1.30	(.84)							
2. Subjective norm	4.21	1.38	.52**	(.81)						
3. PBC	4.80	1.62	.41***	.46**	(.69)					
4. Self-identity	3.89	1.43	.38**	.44**	.54**	(.71)				
6. Prototype favorability	4.38	1.03	.26**	.22**	.18**	.28**	—			
7. Prototype similarity index	3.81	0.61	.14*	.12	.16*	.28**	.15*	(.61)		
8. Intention	4.26	1.84	.52**	.60**	.70**	.63**	.22**	.26**	(.89)	
9. High-level mobile phone use	4.69	1.98	.39**	.45**	.52**	.43**	.16*	.21**	.72***	—

Note. Means in the present study are based on 7-point scales (ranging from 1 to 7), apart from prototype similarity, which reflects the difference scores between items scored on 7-point scales.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 2

Standard and Hierarchical Multiple Regression Analyses Predicting Intention and Mobile Phone Behavior

Variable	<i>R</i>	<i>R</i> ²	<i>R</i> ² Δ	<i>F</i>	<i>df</i>	β
Prediction of intention						
Attitude	.78	.60	.60	122.62***	3, 245	.18***
Subjective norm						.28***
PBC						.49***
Prediction of behavior						
Step 1	.72	.52	.52	118.09***	2, 220	
Intention						.69***
PBC						.03
Step 2	.72	.52	.00	0.042	2, 218	
Attitude						.00
Subjective norm						.02

****p* < .001.

Table 3

Hierarchical Regression Analysis Testing Effects of Self- and Prototypical Identity on Intention to Engage in High-Level Mobile Phone Use

Variable	<i>R</i>	<i>R</i> ²	<i>R</i> ² Δ	<i>F</i>	<i>df</i>	β
Step 1	.77	.60	.60	120.61***	3, 245	
Attitude						.15**
Subjective norm						.23***
PBC						.39***
Step 2	.81	.65	.06	12.85***	3, 241	
Self-identity						.25***
Prototype similarity						.09*
Prototype favorability						-.02
Step 3	.81	.65	.00	0.18	1, 240	
Similarity × Favorability						-.01

Note. Weights provided are those found in the final step of the analysis.

p* < .05. *p* < .01. ****p* < .001.

Table 4

Hierarchical Multiple Regression Testing the Role of Self-Identity in Mediating Prototype Similarity on Intention

Variable	<i>R</i>	<i>R</i> ²	<i>R</i> ² Δ	<i>F</i>	<i>df</i>	β
Step 1	.26	.07	.07	18.73***	1, 249	
Prototype similarity						.27***
Step 2	.64	.41	.37	140.43***	1, 248	
Prototype similarity						.10
Self-identity						.60***

****p* < .001.

Table 5

Hierarchical Multiple Regression Analysis Testing the Role of Self- and Prototypical Identity Influences on High-Level Mobile Phone Use

Variable	<i>R</i>	<i>R</i> ²	<i>R</i> ² Δ	<i>F</i>	<i>df</i>	β
Step 1	.72	.51	.51	115.70***	2, 219	
Intention						.71***
PBC						.05
Step 2	.72	.51	.00	0.04	2, 217	
Attitude						.00
Subjective norm						.01
Step 3	.72	.51	.00	0.31	3, 214	
Self-identity						-.06
Prototype similarity						.01
Prototype favorability						.01
Step 4	.72	.52	.01	2.42	1, 213	
Similarity × Favorability						-.08

Note. Weights provided are those found in the final step of the analysis.

****p* < .001.

