Talking Takes Too Long:  
Gender and Cultural Patterns in Mobile Telephony

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Abstract

The sociolinguistic literature has frequently reported differences in how males and females communicate face-to-face and in writing, and more recently, through information and communication technologies. This article reports on gender patterns identified in a cross-cultural study of mobile phone use by university students in Sweden, the US, Italy, Japan and Korea. Data were analyzed with respect to the purpose of communication, politeness issues, social manipulation and volume of use (along with user complaints about dependency and reachability). Results indicated a number of gendered usage and attitudinal patterns. However, in some cases, cultural variables may prove more explanatory than gender.

Keywords

cell phone, communication, cross-cultural, dependency, gender, manipulation, mobile phone, politeness, reachability

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Communicating online and via mobile devices has come of age. As of 2009, there were 1.8 billion internet users and almost 4.7 billion mobile phone subscriptions (ITU, 2009), out of a world population of about 6.8 billion. In much of the world, males were initially more likely than females to utilize these technologies (Ono & Zavodny, 2005), though in a growing number of countries, the gap in using information and communication technologies (ICTs) is closing or has been closed (Rainie et al., 2000; World Internet Project, 2010).

Gender differences persist in the uses to which new media technologies are put. For example, more American females than males send email to strengthen ties with family and friends (Rainie et al., 2000); at least some American men use mobile phones to adjust personal schedules in their favor, leaving women to bear the brunt of household responsibilities (Chesley, 2005). A growing body of research documents differences in male versus female use of mobile telephony in a range of cultural/national contexts (e.g., Baron & Hård af Segerstad, 2010; Fortunati, 2009; Fortunati & Manganelli, 2002; Fujimoto, 2005; Hijazi-Omari & Ribak, 2008; Hjorth, 2005; D.-H. Lee, 2005; Lemish & Cohen, 2005; Skog, 2002).

This study explores gender and mobile telephony through a sociolinguistic lens. Drawing upon a cross-cultural analysis of mobile phone use by university students in Sweden, the US, Italy, Japan and Korea, we compare our findings with the previous literature regarding gender issues in language used in face-to-face conversation, in writing, and on ICTs. By collecting data from different countries, we can also weigh the relative role of gender versus culture in use of and attitudes towards mobile telephony.

1. Gender and culture as variables

1.1 Gender and language
The sociolinguistic literature has frequently reported that males and females tend to use language differently (e.g., Bergvall et al., 1996; Holmes, 1993, 1995; Holmes & Meyerhoff, 2003; James, 1996; Labov, 1991; Lakoff, 1975; Romaine, 2003; Tannen, 1994). Linguistic differences run the gamut from who dominates the conversation to type of vocabulary, function of message, or use of politeness conventions. Some scholars (e.g., Aries, 1996; Dindia & Canary, 2006; James & Clarke, 1993; Tannen, 1993) rightly observe that differences in linguistic interaction sometimes have more to do with the relationship between interlocutors (including how long they have known one another and their relative position of status and power) than with gender. Nonetheless, the correlations observed between gender and language are too strong to ignore, even if some are ultimately traceable to factors such as socialization and circumstance rather than to biology.

Among the many linguistic domains we might consider, we will focus here on four: purpose of communication, politeness issues, social manipulation and volume of use. Not only do these areas constitute components of the language and gender discussion to date, but they provide an effective framework for studying language and gender issues in mobile telephony.

1.1.1 Purpose of communication

The language and gender literature reports that while women frequently use language to facilitate social interaction, men more commonly employ language for conveying information. This finding has been documented for both face-to-face spoken language (e.g., Cameron, 1998; Coates, 1993; Eckert & McConnell-Ginet, 2003; Holmes, 1993; Romaine, 2003; Smith-Lovin & Robinson, 1992; Tannen, 1994) and written communication (e.g., Argamon et al., 2003; Biber, 1988; Biber et al., 1998; Mulac & Lundell, 1994; Palander-Collin, 1999).
Studies of online communication reveal similar trends. Research in the UK on college-student email indicates that females are more likely to discuss social topics, while male messages more often convey information (Colley & Todd, 2002; Colley et al., 2004). The same patterns have been observed in the US for email by adults and instant messaging (IM) by college students (e.g., Boneva et al., 2001; Fox et al., 2007; C. Lee, 2003). Herring’s studies of US college students (2003) found that in online mixed-gender discussions, females showed more of an ‘aligned’ and supportive orientation towards their interlocutors than did males. Argamon et al. (2007) reported that male bloggers used more words referring to topics such as politics and business, while female topics commonly involved interpersonal conversation or relationships.

A gender dichotomy is also evident in text messages sent on mobile phones. Drawing data from adolescent and/or college student populations, studies of mobile phone use in Japan (Igarashi et al., 2005; Okuyama, 2009; Schiano et al., 2007), Korea (Yoon, 2003), Hong Kong (Lin, 2005) and Taiwan (Wei & Lo, 2006) indicate that females are more likely to use phones for social purposes, while males more commonly engage in information-seeking or planning. In the US, Lenhart et al. (2010) report that while 59% of teenage girls age 12-17 text several times daily to ‘just say hello and chat’, only 42% of boys do so. Horstmanshof & Power (2005) found that Australian males tended to become disenchanted with texting because they were less willing (than females) to follow contemporary social texting conventions, such as immediately responding to messages or sending ‘good night’ messages to significant others. Yates (2006) reported that female messages expressed more ‘support’ and ‘affection’ than did male messages.

Both IM and texting afford structural opportunities to facilitate social interaction. In a study of college-student IM, Baron (2004) reported that conversational closings between
females (FF) took twice as long (both in number of turns and time on the clock) as closings
found that females used explicit openings and closing about 80% of the time, compared with
males – who used them in less than 30% of messages. Females are generally more likely than
males to use emoticons (or their equivalent, e.g., Japanese kaomoji, emoji or de-mo – Okuyama,
2009) and exclamation marks, both in online communication (e.g., Baron, 2004; Colley &
Todd, 2002; Colley et al., 2004; Herring, 2003; C. Lee, 2003; Waseleski, 2006; Witmer &
Katzman, 1997) and in text messaging (e.g., Ling et al., 2010; Miyake, 2010; Scott et al., 2009).

1.1.2 Politeness issues

Our second gender focus is aspects of language that might be clustered under the cover
term ‘politeness’. These include paying compliments, interruptions, and use of profanity, off-
color humor or insults. The sociolinguistic literature (e.g., Brown & Levinson, 1987; Holmes,
1995) suggests that females are more polite in face-to-face speech than males. Using New
Zealand data, Holmes (1988) argues that women both give and receive more compliments than
do men. Many scholars (e.g., Holmes, 1991; Smith-Lovin & Robinson, 1992; Tannen, 1994)
suggest that in mixed-gender conversations, males interrupt females more often than vice versa
(though see James & Clarke, 1993). Similarly, males seem to use more profanity, off-color
humor or insults than females (e.g., Selnow, 1985).

These findings are mirrored in studies of online and mobile communication. Herring
(2003) reports that females using one-to-many mixed-gender computer-mediated
communication (CMC) apologize more than males, while males use more aggressive and
insulting speech acts, along with more profanity. Colley et al. (2004) found that emails sent by
females used more affectionate signatures and expressed more positive emotion than emails
written by males. And in her study of IM conversations within FF and MM dyads, C. Lee (2003) observed that MM conversations were rougher in tone, including a high proportion of derogatory terms of address. Yates et al. (2005) note that in mobile phone communication, females violate fewer politeness norms than males. More specifically, Yates (2006) reported higher levels of sarcasm and swearing in male text messages than in those written by females.

1.1.3 Social manipulation

A third aspect of linguistic interaction is what we might call social manipulation: How do interlocutors control a conversation (Baron, 2008b)? Forms of control range from dominating the conversational floor to ignoring an interlocutor, though the particular type of control may be medium-specific. In speech, for example, Holmes (1993) suggests that within mixed-gender face-to-face groups, males are more likely than females to dominate conversation. Interruptions are another example of social manipulation, though they also involve politeness issues (see above). In written language, users might exercise control by delaying or refusing to reply to a letter.

New media offer further potential venues for social manipulation. Regarding computer-based communication, Herring (in press) reports that in mixed-gender forums such as listservs or newsgroups, female American college students received fewer responses to their posts than male counterparts, and men generally controlled the discourse. More generally, users of ICTs can choose not to reply (or delay replying) to email, instant messages, or text messages. Another way of manipulating the social interaction is to engage in multitasking behavior, such as sending text messages while having lunch with family or friends.

1.1.4 Volume of use
Our last consideration is volume of communication. Like interruptions, volume of communication may be a manifestation of several linguistic parameters. If, for example, the major purpose of communication between two individuals in a given instance is social interaction, we might anticipate (at least on average) the conversation to be longer than if the primary function is conveying information. Similarly, if one interlocutor is manipulating a conversation by refusing to relinquish the floor, we would expect that person’s volume of talk-time to be high. As we will see in the study that follows, volume of communication may correspond to other variables as well.

The literature evidences a relationship between gender and volume of communication. Drawing upon mixed-gender and/or public face-to-face contexts, Coates (1993), Hearn (1992) and Mulac (1989) report men speaking more than women. James & Drakich (1993) argue that such results reflect the ‘social structure of the interaction’ (p. 301), which includes differential power relationships along with differential socialization. By contrast, studies of landline telephony indicate that women generally talk both more frequently and for longer time intervals (Smoreda & Licoppe, 2000).

Volume of online communication also correlates with gender. In mixed-gender one-to-many online contexts (e.g., online conferences, discussion forums), males have been shown to post longer and more frequent contributions, arguably in keeping with the unequal power relationship (Herring, 2003; Self & Meyer, 1991). However, in one-to-one communication contexts such as email and IM, females generate greater volume (arguably reflecting the social function of communication). Colley et al. (2004) report longer female email messages, and Baron (2004) found IM conversations between females to be longer (both in number of turns and time on the clock) than those between males.
Mobile phone studies indicate that females send more and/or longer texts, or are more likely to use texting, than males. These findings are robust across cultural contexts (e.g., Australia: Littlefield, 2004; Finland: Oksman & Turtiainen, 2004; Hong Kong: Lin, 2005; Italy: Herring & Zelenkauskaite, 2008; Japan: Boase & Kobayashi, 2008; Miyake, 2007; Okuyama, 2009; Schiano et al., 2007; Scott et al., 2009; Norway: Ling, 2005; UK: Yates, 2006; US: Lenhart et al., 2010).

1.2 Cross-cultural study of ICTs

While gender is one relevant focus in considering patterns of mobile phone usage, culture is another. Culture can be viewed from multiple vantage points: surface manifestations (such as which hand you hold a fork in), behavioral patterns that reflect belief systems (for example, how people bury their dead) or effects of culture on the way we think (e.g., Hall, 1976; Nisbett, 2003). Our interest here in culture is to see if particular sorts of mobile phone use (or attitudes towards mobiles) correspond with types of social praxis that differ between countries, thereby making culture a potential explanation of country-specific approaches to mobile usage.

Cross-cultural studies are, of course, fraught with challenges (Baron, 2010; Haddon, 2005; Livingstone, 2003; Thomas et al., 2005). Most such studies compare countries, though a single nation-state may have multiple cultures (e.g., northern versus southern Italy; Arabs versus Kurds in Iraq). Similarly, a culture may extend across national boundaries (e.g., the Sami, who live in Sweden, Norway, Finland and Russia). Other challenge are methodological: Subjects in one setting may be familiar with responding to online questionnaires, while those in another may find the survey instrument confusing).
A further issue in doing cross-cultural analysis is finding objective depictions of individual cultures and measures of cross-cultural differences. Cultural profiles of individual groups such as Daun’s *Swedish Mentality* (1996) acknowledge the sensitivities involved in attempting to portray a national character. Hofstede’s work (e.g., 1980) comparing dimensions of culture (e.g., masculinity versus femininity, small versus large power distance) was an important step towards objective data collection, but is not without critics (McSweeney, 2002). Rather than attempting to create cultural profiles for each of the five countries in which data were collected, the present study assumes an inductive approach: Where differences between countries (rather than between genders) exist in the data, we draw upon general knowledge of relevant components of the cultures to explore how such components relate to mobile phones.

Cross-cultural comparisons involving ICTs bring additional challenges. The amount of experience a society has had with a particular technology may explain cross-national differences in user attitudes towards that technology. Similarly, variation in cost (and income) may be the actual source of what on the surface appear to be cultural distinctions.

### 1.3 Rationale for present study

New technologies potentially alter relationships between interlocutors in a conversation. When online media first became available for organizational and personal communication, it was hypothesized that interaction would become more democratic, since neither gender (nor social status) was necessarily revealed in messaging (e.g., Sproull & Kiesler, 1986). However, as we have seen from Herring’s research, gender differences persist in at least some types of online communication (Herring, 2003).

Mobile phones are now assuming some of the linguistic functions of computer-based systems such as email and instant messaging, particularly given the increasing popularity of
smart phones with internet access. At the same time, in countries such as Japan, widespread use of personal computers (particularly among young people) is more recent than diffusion of mobile phones, and therefore much of the communication that Americans associate with computers (one-to-one messaging, social networking sites) are elsewhere entrenched functions of phones.

Nearly all the gender-related studies to date regarding mobile phones were conducted in single countries, making it difficult to compare results cross-culturally, since research methodologies varied. Moreover, most existing mobile phone research has focused on empirical usage issues rather than inquiring what users themselves say about the device.

The present study addresses these lacuna by first, using a single data-collection method across several countries and second, by focusing on users’ attitudes towards mobile phones. In examining our findings, we will consider the role of both gender and culture. However, organizationally, the paper is structured in terms of gender issues.

2. Research hypotheses and research question

Having reviewed the language and gender literature, we formulated four research hypotheses and one research question. Because our interest is primarily in user attitudes towards mobile phone use, a number of our measures of communication, politeness, social manipulation and volume of use do not directly correspond to those in the research we have summarized. However, in interpreting our findings, we will see the extent to which our conclusions parallel those in the prior literature.

2.1 Purpose of communication
The literature on speech, writing, computer-based communication and mobile phones suggests that females are more likely than males to use language for social interaction. The first research hypothesis in our study was therefore

**RH1.** Female mobile phone users will evidence a stronger social orientation towards using their phones than will males.

### 2.2 Politeness issues

Our review of the gender literature suggests females are more linguistically polite than males. Our second research hypothesis was therefore

**RH2.** Female mobile phone users will evidence stronger concerns about politeness in mobile phone use than will males.

### 2.3 Social manipulation

Mobile phones offer novel ways of controlling linguistic interaction, including choosing to talk or to text, or pretending to talk to avoid conversation with an acquaintance or a stranger. Because we do not have prior data on language use in these contexts, we formulated a research question regarding social manipulation rather than a research hypothesis:

**RQ1.** Are there gender differences in the ways males and females use mobile phones to socially manipulate communication?

### 2.4 Volume of use; dependency and reachability

The current literature suggests that females are heavier users of text messaging than males. It has also been reported that in landline conversations, females have more frequent and longer conversations than males. We therefore formulated our third research hypothesis:
**RH3.** *Female mobile phone users will report a higher volume of both voice calls and text messages than males.*

A high volume of communication via any medium may have consequences. Mobile phones have increasingly become ‘always on’ technologies (Baron, 2008a), through which we can reach others – and they can reach us. Users may come to feel entrapped because they always need to be available. Moreover, they may become dependent upon the device and therefore at a loss if it is lost or does not function properly. If RH3 (that females will have a higher volume of phone usage) proves correct, we hypothesize that females will feel more dependent upon their phones than males, and will complain more about being reachable. Our fourth research hypothesis was therefore

**RH4.** *Volume of communication will correlate with feelings of dependency on the mobile phone and complaints about reachability, and females will complain about dependency and reachability more than males.*

### 3. Methodology

#### 3.1 Research design

Data were collected using a convenience sample\(^1\) of 18-24 year-old university students in Sweden, the US, Italy, Japan and Korea between October 2007 and December 2008. Subjects were recruited through advertisements in student newspapers, campus posters, email distribution lists, class visits and invitations on course websites. Participants were directed to an

\(^1\) While a random sample would have been methodologically preferable, research constraints necessitated use of a convenience sample. One result was an imbalance between males and females (a 1:3 ratio). However, there were a sufficient number of males in each country to permit statistical analysis.
online survey mounted on the professional version of SurveyMonkey, an internet-based survey tool. In each country, data were collected at universities in two cities.

The English questionnaire was translated into Swedish, Italian, Japanese and Korean by fluent bilinguals. The survey took about 10 minutes to complete. The full survey (excluding demographic information) included 54 quantitative or scalar questions, six open-ended questions and a word association question. Verbal responses were translated into English by fluent bilinguals. Focus groups and group interviews were also conducted in all countries except Korea, though the results are not generally reported here.\(^2\)

### 3.2 Subjects

Table 1 shows the gender and age distribution, by country, for the 2001 participants.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Sweden</th>
<th>US</th>
<th>Italy</th>
<th>Japan</th>
<th>Korea</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>male</td>
<td>38.6%</td>
<td>26.8%</td>
<td>18.0%</td>
<td>29.1%</td>
<td>32.7%</td>
<td>524</td>
</tr>
<tr>
<td>female</td>
<td>61.4%</td>
<td>73.2%</td>
<td>82.0%</td>
<td>70.9%</td>
<td>67.3%</td>
<td>1477</td>
</tr>
<tr>
<td>total</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>2001</td>
</tr>
</tbody>
</table>

Mean age (years) 21.5 19.8 21.3 19.8 21.3 20.7

Of the 2001 subjects, 524 were male and 1477 were female, with a mean age of 20.7 years.

### 3.3 Survey questions

\(^2\) Discussion of the focus groups is omitted both because of space constraints and because it was not possible to obtain sufficient numbers of males and females in all countries, thereby skewing the analysis.
3.3.1 RH1. Purpose of communication

One set of data for analyzing the purpose of communication was derived from the word association question (‘What are the first three words you think of when you think of mobile phones?’). Use of word association tasks to tap into human thinking dates back to the early days of modern psychology and has continued to be a common tool in studying human cognition (Cramer, 1968; Deese, 1959). One advantage of word association tasks over other experimental tools is that respondents are invited to voice whatever issues are on their minds. When substantial numbers of respondents independently produce similar words, we have a useful tool for assessing attitudes regarding mobile phones.

A second set of data was obtained by asking the open-ended question ‘What is the one thing you like most about having a mobile phone?’.

3.3.2 RH2. Politeness issues.

Data for analyzing politeness came from three sources. First, subjects were asked to judge the acceptability of talking or texting on mobile phones while

- eating dinner at home with their family
- sitting with people they knew in an informal café
- paying at the cash register at a convenience store
- walking in public
- riding a local bus, tram or subway

For each scenario, subjects could select ‘always’, ‘usually’, ‘occasionally’ or ‘never’.

The second data source was the word association question (‘first three words’). The last source was the question ‘What is the one thing you like least about having a mobile phone?’
3.3.3 RQ1. Social manipulation

To gauge manipulation of social interaction, we used two sets of questions. First, subjects evaluated how important it was (‘very important’, ‘somewhat important’, ‘not very important’ or ‘not important at all’) to talk or text for a particular reason:

choosing to call rather than sending a text message

- ‘I want to hear the voice of the person I’m communicating with.’

choosing to send a text message rather than calling

- ‘I want to make my message short, and talking takes too long.’
- ‘Some communication is better done by sending a text message than talking.’

Another way of manipulating communication is pretending to use the phone (or playing with its functions – e.g., checking old text messages or playing games) to avoid potential conversation with an acquaintance or stranger. Subjects indicated how often (‘at least once a week’, ‘about once a month’, ‘occasionally’ or ‘never’) they pretended to be talking on their mobile phone

- to avoid talking with someone they knew
- to avoid having a stranger talk with them

played with other functions on their mobile phones

- to avoid talking with someone they knew
- to avoid having a stranger talk with them

3.3.4 RH3 and RH4. Volume of use; dependency and reachability

To ascertain volume of mobile phone use, subjects were asked

- ‘Yesterday, what was the combined number of voice calls you made and received on your mobile phone [including voicemails]?’
Yesterday, what was the combined number of text messages you sent and received on your mobile phone?’

Respondents were asked to select from a range of intervals (e.g., 1-2, 11-15, 21-30). Data regarding feelings of dependency, along with complaints about reachability, were drawn from the open-ended question ‘What is the one thing you like least about having a mobile phone?’

3.4 Methodology for data analysis

3.4.1 Quantitative and scalar questions

The two quantitative questions asked subjects how many voice calls and text messages they sent or received the previous day. Once the data were tallied, it was clear that some subcategories (e.g., 0, 1-2, and 3-4) could be collapsed for purpose of analysis. The scalar questions used four-point Likert scales. Subjects were asked to indicate how important a particular reason was for engaging in a specific activity or the frequency with which they engaged in an activity. Again, for purposes of analysis, some points on the scales were collapsed. Significance levels for all scalar analyses were determined using the Two-Sample Test for Proportions.

3.4.2 Word association and open-ended questions

For the word association task (‘first three words’), a coding scheme was developed on the basis of all codable responses. Major categories included Technology Issues, Physical Attributes and Functions, Communication Issues, Evaluation Issues, Cost Issues and Safety Issues. (There were also many subcategories.) Coding was done independently by two researchers, with differences resolved through consultation. In cases involving potential translation issues, fluent bilinguals were consulted.
The two open-ended questions inquired what subjects liked most and liked least about having a mobile phone. Again, a coding scheme was devised (incorporating both ‘like most’ and ‘like least’ data) on the basis of all codable data. Major categories included Physical Attributes and Functions, Communication Issues, Evaluation Issues, Cost Issues, Safety Issues and No Comment. (Again, there were many subcategories.) Coding was done independently by two researchers, with differences resolved through consultation. In cases involving potential translation issues, fluent bilinguals were consulted.

Because subjects were free to write whatever they wished, some ‘like most’ or ‘like least’ responses were found to address more than one issue, and therefore might be appropriate for multiple coding categories. For cases in which two categories were conjoined (e.g., ‘convenience and security’), the first category mentioned was chosen. In other instances, two concepts were intertwined. Consider one Swedish subject’s response to the ‘like least’ question:

‘I get a little stressed when it calls all the time. I feel forced to answer because the number gets shown as a missed call.’

This reply might be coded either as Dependency/Stress (a subcategory of Evaluation) or as Obligation to be Responsive (a subcategory under Communication). Coding decisions were made on the basis of what appeared to be the principle idea (here, the obligation to respond), even if the secondary idea (stress) appeared first in the sentence.

Percentages calculated for the word association and open-ended questions reflect the ratio of coded responses within a category (e.g., in the word association task, words males used that related to communication) to total number of codable responses (here, total word association responses by males). Significance levels for both the word association task and the open-ended questions were calculated using the Two-Sample Test for Proportions.
4. Results

4.1 RH1: Purpose of communication

4.1.1 First three words

Responses to the word association question (‘first three words’) yielded many replies involving communication. Subdivisions of this category included general terms (e.g., communicate), along with words relating to speech or writing (e.g., calling, text message), social community (e.g., parents, friends, boyfriend), etiquette (e.g., manners) or emotions (e.g., quarrels). Results are shown in Table 2.

Table 2: Percent of ‘First Three Words’ Responses Involving Communication

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>total words relating to communication</td>
<td>40.4% (N=629)</td>
<td>46.9% (N=2068)</td>
</tr>
<tr>
<td>words relating specifically to social community</td>
<td>4.6% (N=71)</td>
<td>5.9% (N=262)</td>
</tr>
</tbody>
</table>

Overall, 46.9% of words provided by females related to communication, compared with 40.4% by males (p< .01). Considering just responses involving social community, female responses were also higher (females: 5.9%; males: 4.6% -- p< .03).

4.1.2 Like most

Table 3 summarizes ‘like most’ responses relating to communication.

Table 3: Percent of ‘Like Most’ Responses Involving Communication

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>total comments relating to communication</td>
<td>57.9% (N=303)</td>
<td>59.9% (N=881)</td>
</tr>
<tr>
<td>comments relating specifically to social community</td>
<td>5.2% (N=27)</td>
<td>8.5% (N=125)</td>
</tr>
</tbody>
</table>
There was no difference between genders for general responses involving communication (males: 57.9%; females: 59.9%). However, as with the ‘first three words’ results, more females specifically mentioned social community (females: 8.5%; males: 5.2% -- p< .01). Examples of ‘like most’ responses involving social community included ‘talk to family’ and ‘planning social events’.

4.2 RH2: Politeness issues

4.2.1 Use of phone in public space

Table 4 summarizes responses indicating it was ‘always’ or ‘usually’ acceptable to talk on mobile phones while in a variety of social contexts.

Table 4: Percent Acceptability of Talking on Mobile Phone while in Various Social Contexts

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>eating dinner at home with family</td>
<td>17.0% (N=89)</td>
<td>7.4% (N=109)</td>
</tr>
<tr>
<td>sitting with people you know in informal café</td>
<td>35.7% (N=187)</td>
<td>21.4% (N=316)</td>
</tr>
<tr>
<td>paying at cash register at convenience store</td>
<td>39.3% (N=206)</td>
<td>28.0% (N=414)</td>
</tr>
<tr>
<td>walking in public</td>
<td>88.5% (N=464)</td>
<td>87.6% (N=1294)</td>
</tr>
<tr>
<td>riding a local bus, tram or subway</td>
<td>55.7% (N=292)</td>
<td>54.1% (N=799)</td>
</tr>
</tbody>
</table>

In all face-to-face situations (i.e., at dinner, in a café, at a cash register), males were more likely than females to find talking on their mobiles acceptable (p< .01). This generalization held true for Swedes, Americans, Italians and Japanese. In Korea, there was no gender difference. However, Korean acceptability rates were by far the highest (e.g., while 41% of Koreans found it ‘always’ or ‘usually’ acceptable to talk on phones during family dinner, only 14% of Swedes – and only 3% of Italians – judged the behavior acceptable).
Talking on mobiles in less personal contexts (i.e., walking in public, riding local transportation) generally revealed more balanced acceptability levels across genders. In Korea, however, more females (though not significantly) approved of talking while riding public transportation (females: 67.9%; males: 56.6%).

Finally, a cultural comment about Japan, where passengers are reminded with prominent signs not to talk on a mobile phone while riding public transport (Okabe & Ito, 2005): In our data, overall Japanese acceptability for this behavior was only 4%. Removing Japanese data from the summation in Table 4, acceptability levels for both genders rise about 20%.

Table 5 summarizes responses from subjects who indicated it was ‘always’ or ‘usually’ acceptable to text on their mobile phones while in a variety of social contexts.

<table>
<thead>
<tr>
<th>Social Context</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>eating dinner at home with family</td>
<td>31.3% (N=164)</td>
<td>23.0% (N=340)</td>
</tr>
<tr>
<td>sitting with people you know in informal café</td>
<td>56.9% (N=298)</td>
<td>44.4% (N=656)</td>
</tr>
<tr>
<td>paying at cash register at convenience store</td>
<td>42.0% (N=220)</td>
<td>35.0% (N=517)</td>
</tr>
<tr>
<td>walking in public</td>
<td>84.2% (N=441)</td>
<td>83.5% (N=1234)</td>
</tr>
<tr>
<td>riding a local bus, tram or subway</td>
<td>90.8% (N=476)</td>
<td>92.2% (N=1362)</td>
</tr>
</tbody>
</table>

As with talking on the mobile while face-to-face with others, males were more likely than females to find it acceptable to text when eating dinner at home, at a café, or at a convenience store cash register (p< .01).

Texting on a mobile while walking was equally acceptable to both genders in Sweden, the US, Italy and Japan, while in Korea, females were more likely to find the practice acceptable (females: 94.5%; males: 83.0% -- p< .01). For texting while riding public
transportation, genders were largely matched, except in Korea, where females were somewhat more likely to accept the behavior (females: 98.2%; males: 90.6% -- p< .05).

4.2.2 First three words

Politeness issues surfaced – slightly – in the word association task. Thirteen words (out of 5969 codable answers) explicitly concerned ‘bad manners’. All 13 came from Japanese subjects, and they were proportionally balanced between males and females.

4.2.3 Like least

Politeness concerns also appeared in responses to the ‘like least’ question. A cluster of responses referred to disruptions of ‘social order’, through violations of etiquette (e.g., ‘it’s too noisy’; ‘when people talk on a cell phone when I am there’) or disruption from the phone’s ringer (e.g., ‘it’s constantly ringing’). The results are shown in Table 6.

<table>
<thead>
<tr>
<th>Country</th>
<th>Male</th>
<th>Female</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>3.0% (N=2)</td>
<td>1.9% (N=2)</td>
<td>2.3% (N=4)</td>
</tr>
<tr>
<td>US</td>
<td>3.6% (N=5)</td>
<td>8.6% (N=33)</td>
<td>7.3% (N=38)</td>
</tr>
<tr>
<td>Italy</td>
<td>5.5% (N=6)</td>
<td>4.2% (N=21)</td>
<td>4.5% (N=27)</td>
</tr>
<tr>
<td>Japan</td>
<td>11.7% (N=18)</td>
<td>7.3% (N=27)</td>
<td>8.6% (N=45)</td>
</tr>
<tr>
<td>Korea</td>
<td>0.0% (N=0)</td>
<td>1.9% (N=2)</td>
<td>1.3% (N=2)</td>
</tr>
</tbody>
</table>

There was no overall gender difference in the frequency with which disruption of the social order was mentioned (males: 6.0%; females: 5.8%), though gender difference was significant in the US (females: 8.6%; males: 3.6% -- p< .03). More Americans (7.3%) and Japanese (8.6%) expressed concern about disruption of social order than subjects elsewhere.

4.3 RQ3: Social manipulation
4.3.1 Choosing to talk or text

Table 7 summarizes responses of ‘very important’ or ‘somewhat important’ to questions about the importance of calling (‘to hear the voice of the person I’m communicating with’) or texting (‘to make my message short [since] talking takes too long’ or because ‘some communication is better done by sending a text’).

Table 7: Percent Subjects Judging It Important to Choose Talk or Text

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>call to hear person’s voice</td>
<td>69.1% (N=362)</td>
<td>77.5% (N=1145)</td>
</tr>
<tr>
<td>text to keep message short</td>
<td>57.3% (N=300)</td>
<td>64.0% (N=946)</td>
</tr>
<tr>
<td>text is better for some communication</td>
<td>57.4% (N=301)</td>
<td>51.0% (N=753)</td>
</tr>
</tbody>
</table>

Females were more likely to find it important to call to hear the other person’s voice (females: 77.5%; males: 69.1% -- p< .01). Females were also more likely to judge texting important because talking takes too long (females: 64.0%; males: 57.3% -- p< .01). By contrast, more males reported it was important to text because some communication was better done by texting (males: 57.4%; females: 51.0% -- p< .01).

4.3.2 Pretending to use phone/playing with phone to avoid conversation

Table 8 summarizes the responses for pretending to talk at least once a month (i.e., ‘at least once a week’ plus ‘about once a month’) and at least occasionally (i.e., ‘at least once a week’ plus ‘about once a month’ plus ‘occasionally’).
Table 8: Percent Pretending to Talk to Avoid Conversation with Acquaintance or Stranger

<table>
<thead>
<tr>
<th></th>
<th>Acquaintance</th>
<th></th>
<th>Stranger</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>at least once a month</td>
<td>8.6% (N=44)</td>
<td>6.1% (N=90)</td>
<td>8.2% (N=43)</td>
<td>9.1% (N=135)</td>
</tr>
<tr>
<td>at least occasionally</td>
<td>30.7% (N=161)</td>
<td>32.6% (N=481)</td>
<td>27.5% (N=144)</td>
<td>47.0% (N=694)</td>
</tr>
</tbody>
</table>

Males were somewhat more likely than females to report pretending to talk on their phones at least once a month to avoid conversation with an acquaintance (males: 8.6%; females: 6.1% -- p<.05). Results are more similar across genders for avoiding conversation with a stranger at least once a month (males: 8.2%; females: 9.1%).

Avoiding both acquaintances and strangers by pretending to talk was most prevalent in the US. Fifteen percent of American males and 11.7% of females pretended at least once a month to be talking on their phones to avoid people they knew – compared with 3.0% of Swedish males or 1.4% of Italian females. To avoid conversation with a stranger, 14.3% of American males and 15.4% of American females pretended to be talking (again, at least once a month), compared with only 1.7% of Swedish males and 3.5% of Swedish females.

Considering the broader response set of ‘at least occasionally’, genders were matched regarding avoiding acquaintances (males: 30.7%; females: 32.6%). However, females were more likely to pretend to talk to avoid strangers (females: 47.0%; males: 27.5% -- p<.01).

Table 9 summarizes responses regarding playing with other functions on the phone to avoid conversation with an acquaintance or a stranger.
Table 9: Percent Playing with Other Functions to Avoid Conversation with Acquaintance or Stranger

<table>
<thead>
<tr>
<th></th>
<th>Acquaintance</th>
<th>Stranger</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>at least once a month</td>
<td>15.8% (N=83)</td>
<td>18.3% (N=271)</td>
</tr>
<tr>
<td>at least occasionally</td>
<td>48.9% (N=256)</td>
<td>60.7% (N=897)</td>
</tr>
</tbody>
</table>

Playing with phone functions at least once a month to avoid conversation – with either acquaintances or strangers – was roughly twice as common as pretending to talk for the same reason. Slightly (though not significantly) more females used other phone functions to avoid conversation with acquaintances (females: 18.3%; males: 15.8%), while the difference in use of this strategy to avoid strangers was wider (females: 22.9%; males: 15.1% -- p< .01).

Gender distinctions (for both conditions) increased when ‘occasionally’ data were included. For avoiding acquaintances, the results were females: 60.7%; males: 48.9% – p< .01. For avoiding strangers, the results were females: 70.9%; males: 45.2% -- p< .01.

There were fewer distinctions between countries for avoiding conversations by playing with other phone functions than by pretending to talk. Italians were least likely to avoid conversations by playing with other phone functions, with Italian females more likely than Italian males to use these functions to avoid having a stranger speak with them.

4.4 RH3 and RH4: Volume of use; dependency and reachability

4.4.1 Volume of use
We analyzed volume of talking (calls initiated and received, including voicemail) and texting (including texts sent and received) that subjects reported for the previous day. Table 10 presents the findings for voice calls.

<table>
<thead>
<tr>
<th>Frequency of Mobile Phone Use Reported for Talking (‘Yesterday’)*</th>
<th>Sweden</th>
<th>US</th>
<th>Italy</th>
<th>Japan</th>
<th>Korea</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=171</td>
<td>N=523</td>
<td>N=616</td>
<td>N=529</td>
<td>N=162</td>
<td>N=2001</td>
</tr>
<tr>
<td>0-4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>60.6 (40)</td>
<td>52.9 (74)</td>
<td>81.1 (90)</td>
<td>86.4 (133)</td>
<td>41.5 (22)</td>
<td>68.5 (359)</td>
</tr>
<tr>
<td>Female</td>
<td>62.9 (66)</td>
<td>47.0 (180)</td>
<td>78.2 (395)</td>
<td>85.1 (319)</td>
<td>51.4 (56)</td>
<td>68.8 (1016)</td>
</tr>
<tr>
<td>5-10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>33.3 (22)</td>
<td>33.6 (47)</td>
<td>17.1 (19)</td>
<td>10.4 (16)</td>
<td>45.3 (24)</td>
<td>24.4 (128)</td>
</tr>
<tr>
<td>Female</td>
<td>30.5 (32)</td>
<td>40.2 (154)</td>
<td>19.4 (98)</td>
<td>13.6 (51)</td>
<td>29.4 (32)</td>
<td>24.8 (367)</td>
</tr>
<tr>
<td>11-20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>6.1 (4)</td>
<td>10.7 (15)</td>
<td>0.0 (0)</td>
<td>1.3 (2)</td>
<td>5.7 (3)</td>
<td>4.6 (24)</td>
</tr>
<tr>
<td>Female</td>
<td>5.7 (6)</td>
<td>10.4 (40)</td>
<td>2.0 (10)</td>
<td>1.3 (5)</td>
<td>14.7 (16)</td>
<td>5.2 (77)</td>
</tr>
<tr>
<td>21-30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>0.0 (0)</td>
<td>2.1 (3)</td>
<td>0.9 (1)</td>
<td>0 (0)</td>
<td>3.8 (2)</td>
<td>1.1 (6)</td>
</tr>
<tr>
<td>Female</td>
<td>0.9 (1)</td>
<td>1.0 (4)</td>
<td>0.4 (2)</td>
<td>0 (0)</td>
<td>3.7 (4)</td>
<td>0.7 (11)</td>
</tr>
<tr>
<td>&gt;30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>0 (0)</td>
<td>0.7 (1)</td>
<td>0.9 (1)</td>
<td>2.0 (3)</td>
<td>3.8 (2)</td>
<td>1.3 (7)</td>
</tr>
<tr>
<td>Female</td>
<td>0 (0)</td>
<td>1.3 (5)</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>0.9 (1)</td>
<td>0.4 (6)</td>
</tr>
</tbody>
</table>

*Not all columns (by gender) sum to 100% due to rounding.
In each country, at least 80% of subjects (both male and female) made or received ≤10 voice calls per day, with no difference between male and female totals across countries. Looking at subjects who engaged in >20 voice calls per day (i.e., 21-30 plus >30), there were some difference between genders (males: 2.5%; females: 1.2% -- p< .02), though the sample size is small. Again looking at >20 calls per day, Koreans were the heaviest users of voice functions (5.6%), followed by Americans (2.5%). Looking just at subjects who engaged in >30 voice calls per day (‘heavy callers’), the overall percent drops to 0.6%, with Koreans still having the highest volume (1.9%), followed by the US (1.2%).

Table 11 presents the findings for text messages.
Table 11: Frequency of Mobile Phone Use Reported for Texting (‘Yesterday’)*

<table>
<thead>
<tr>
<th></th>
<th>Sweden</th>
<th>US</th>
<th>Italy</th>
<th>Japan</th>
<th>Korea</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=171</td>
<td>N=523</td>
<td>N=616</td>
<td>N=529</td>
<td>N=162</td>
<td>N=2001</td>
</tr>
<tr>
<td>0-4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>66.7 (44)</td>
<td>45.0 (63)</td>
<td>36.9 (41)</td>
<td>22.7 (35)</td>
<td>5.7 (3)</td>
<td>35.5 (186)</td>
</tr>
<tr>
<td>Female</td>
<td>49.5 (52)</td>
<td>38.6 (148)</td>
<td>32.5 (164)</td>
<td>16.5 (62)</td>
<td>2.7 (3)</td>
<td>29.1 (429)</td>
</tr>
<tr>
<td>5-10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>22.7 (15)</td>
<td>26.4 (37)</td>
<td>27.0 (30)</td>
<td>30.5 (47)</td>
<td>22.6 (12)</td>
<td>26.9 (141)</td>
</tr>
<tr>
<td>Female</td>
<td>36.2 (38)</td>
<td>26.9 (103)</td>
<td>26.5 (134)</td>
<td>29.1 (109)</td>
<td>11.9 (13)</td>
<td>26.9 (397)</td>
</tr>
<tr>
<td>11-20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>7.6 (5)</td>
<td>10.7 (15)</td>
<td>13.5 (15)</td>
<td>26.0 (40)</td>
<td>30.2 (16)</td>
<td>17.4 (91)</td>
</tr>
<tr>
<td>Female</td>
<td>11.4 (12)</td>
<td>16.7 (64)</td>
<td>17.0 (86)</td>
<td>25.1 (94)</td>
<td>24.8 (27)</td>
<td>19.2 (283)</td>
</tr>
<tr>
<td>21-30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>3.0 (2)</td>
<td>7.9 (11)</td>
<td>8.1 (9)</td>
<td>7.8 (12)</td>
<td>7.6 (4)</td>
<td>7.3 (38)</td>
</tr>
<tr>
<td>Female</td>
<td>0.9 (1)</td>
<td>6.0 (23)</td>
<td>6.5 (33)</td>
<td>12.0 (45)</td>
<td>11.9 (13)</td>
<td>7.8 (115)</td>
</tr>
<tr>
<td>&gt;30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>0.0 (0)</td>
<td>10.0 (14)</td>
<td>14.4 (16)</td>
<td>13.0 (20)</td>
<td>34.0 (68)</td>
<td>13.0 (68)</td>
</tr>
<tr>
<td>Female</td>
<td>1.9 (2)</td>
<td>11.7 (45)</td>
<td>17.4 (88)</td>
<td>17.3 (65)</td>
<td>48.6 (53)</td>
<td>17.1 (253)</td>
</tr>
</tbody>
</table>

*Not all columns (by gender) sum to 100% due to rounding.

All countries except Sweden reported higher levels of texting. Looking at subjects who indicated sending or receiving >30 texts the previous day (‘heavy texters’), the overall percent was 16.0% (compared with 0.6% for voice calls). More females reported >30 texts per day than males (females: 17.1%; males: 13.0% -- p< .02). Each country had a greater proportion of female heavy texters, though gender difference was only significant in Korea (p< .04).
4.4.2 Dependency

Among the ‘like least’ responses were answers relating to dependency, e.g., ‘addicted’, ‘can’t resist the urge not to check it’, ‘feel restricted’, ‘feel insecure without it’ and ‘that it becomes an obsession’. Table 12 reports these results.

Table 12: Percent ‘Like Least’ Responses Relating to Dependency

<table>
<thead>
<tr>
<th>Country</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>4.5% (N=3)</td>
<td>8.6% (N=9)</td>
<td>7.0% (N=12)</td>
</tr>
<tr>
<td>US</td>
<td>7.1% (N=10)</td>
<td>7.3% (N=28)</td>
<td>7.3% (N=38)</td>
</tr>
<tr>
<td>Italy</td>
<td>9.2% (N=10)</td>
<td>9.9% (N=49)</td>
<td>9.7% (N=59)</td>
</tr>
<tr>
<td>Japan</td>
<td>5.2% (N=8)</td>
<td>11.6% (N=43)</td>
<td>9.7% (N=51)</td>
</tr>
<tr>
<td>Korea</td>
<td>27.5% (N=14)</td>
<td>31.5% (N=34)</td>
<td>30.2% (N=48)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>8.7% (N=45)</td>
<td>11.1% (N=163)</td>
<td>10.5% (N=208)</td>
</tr>
</tbody>
</table>

Slightly (though not significantly) more females complained about dependency (females: 11.1%; males: 8.7%; -- p< .06). Koreans voiced the most concern (30.2%). In every country, females complained more than males, though only significantly in Japan (p< .02).

4.4.3 Reachability

‘Like least’ responses involving reachability included specific complaints about other people reaching them (e.g., ‘people being able to track me down’, ‘just don’t want to be contacted’), comments in which the directionality of communication was not specified (e.g., ‘can’t be out of touch’, ‘I have to talk to people’), and, in one case, a complaint being able to
reach other people (‘I have a hard time not calling the people I probably shouldn’t call’). Table 13 summarizes the reachability data, by gender.

Table 13: Percent ‘Like least’ Responses Relating to Reachability

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>others reach me</td>
<td>31.0%</td>
<td>34.9%</td>
<td>33.8%</td>
</tr>
<tr>
<td></td>
<td>(N=161)</td>
<td>(N=510)</td>
<td>(N=671)</td>
</tr>
<tr>
<td>direction not specified</td>
<td>16.3%</td>
<td>17.9%</td>
<td>17.5%</td>
</tr>
<tr>
<td></td>
<td>(N=85)</td>
<td>(N=262)</td>
<td>(N=347)</td>
</tr>
<tr>
<td>I reach others</td>
<td>0.0%</td>
<td>0.1%</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>(N=0)</td>
<td>(N=1)</td>
<td>(N=1)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>47.3%</td>
<td>52.8%</td>
<td>51.4%</td>
</tr>
<tr>
<td></td>
<td>(N=246)</td>
<td>(N=773)</td>
<td>(N=1019)</td>
</tr>
</tbody>
</table>

Females complained numerically more often about other people reaching them, though not significantly so (females 34.9%; males: 31.0% -- p< .06) and significantly more about reachability in general (females: 52.8%; males: 47.3% -- p< .02).

In Sweden, the US and Italy, between 52% (Italy) and 57% (Sweden and the US) of subjects mentioned reachability as what they ‘liked least’. However, in Japan, only 37% of subjects gave this response, while in Korea, 73% of subjects complained about reachability.

5. Discussion

5.1 RH1: Purpose of communication

Responses to both the ‘first three words’ and the ‘like most’ questions suggest that females are more likely than males to use mobile phones to facilitate social interaction. This orientation was seen both in general responses relating to communication (‘first three words’) and in replies specifically concerning social community (‘first three words’ and ‘like most’).

These findings are consonant with previous literature on gender differences in face-to-face speech, in writing, and in online and mobile communication. At the same time, because the
measures of social interaction used in different studies were not identical, we must temper our conclusions. The mobile phone data lend support to the general finding across media that females are more likely than males to see communication as having a social function. However, we cannot conclude that our findings directly support those of other studies.

5.2 RH2: Politeness issues

While the sociolinguistic literature suggests that females are more linguistically polite than males, none of the common measures of politeness was directly relevant to the present study. Our closest correlate was judgments our subjects made regarding the acceptability of using mobile phones in a variety of social contexts. During face-to-face encounters (at dinner, in a café, at a cash register), males were significantly more likely than females to accept both talking and texting on mobiles. These findings suggest either that females are following stricter politeness norms or perhaps that females privilege social interaction with physically present interlocutors over those reached by phone.

There was considerable disparity across countries. For example, 41.4% of Koreans (males: 45.3%; females: 39.4%) found it acceptable to talk on their mobiles during a family dinner, compared with only 3.1% of Italians (males: 8.1%; females: 2.0%). Thus, while gender distinctions do appear in Korea and Italy, cultural issues are clearly at play as well. Similarly, in the word association question, the only subjects offering terms dealing with ‘bad manners’ were from Japan – a culture known for its politeness conventions.

Politeness judgments were less stringent when moving through public space (walking in public or riding local transportation), where talking and texting were more acceptable to both genders. The only gender differences occurred in Korea, where females were more accepting of
talking (while riding public transportation) and texting (while both walking and riding public transport). Recall that Korean females were the heaviest texters.

5.3 RQ1: Social manipulation

The literature on use of language for social manipulation has generally focused on male-female power relationships, which were not relevant to the present study. However, several of our questions explored control over social interaction.

More females than males chose talking (over texting) because they wanted to hear the voice of their interlocutor. Technically, this choice is a form of social control, in that subjects are selecting their medium of communication. However, the choice of talking to hear the interlocutor’s voice suggests the importance of social connection. Therefore, these data complement our findings regarding RH1 that females are more likely than males to have a social orientation towards using their mobile phones.

More females than males reported choosing to text (rather than talk) because ‘talking takes too long’. Participants in focus groups noted how easy it is to become embroiled in a voice call. With texting, senders maintain control over the interaction, bypassing any obligation to hear the other person out.

Males evidenced a different strategy for manipulating social interaction, being more likely than females to judge it important to text (rather than talk) because ‘some communication is better done by sending a text message than talking’. While desire for brevity might be one explanation, our finding that females, not males, were more likely to text because ‘talking takes too long’ suggests we look elsewhere. An alternative possibility is that at least some males felt awkward talking voice-to-voice about certain issues (e.g., breaking up with a girlfriend), making texting a more desirable option.
The ‘pretending to talk’ strategy for avoiding acquaintances was particularly prevalent in the US, where males were numerically more likely than females to use the strategy at least once a month. This male avoidance strategy is consonant with their choosing to text rather than talk to communicate about particular topics.

Culturally, the distinction between American and Italian behavior for avoiding acquaintances at least once a month by pretending to talk on their phones is stark: 12.6% of Americans versus 2.1% of Italians. The Italian pattern is consistent with the very small proportion of Italians who found it appropriate to talk on their phones at a family dinner (3.1%). These data support a profile of Italy as a culture that strongly values communication with familiar people in one’s physical presence. However, it would be useful to examine whether Italians privilege face-to-face social interaction over use of mobile phones in other contexts.

Using the mobile phone to avoid strangers was generally a strategy employed more often by females than by males. The disparities between genders were particularly high for occasionally pretending to talk, and for occasionally playing with other functions on the phone to avoid conversation. Given females’ greater physical vulnerability in potential encounters with strangers, these findings are not surprising.

5.4 RH3 and RH4: Volume of use; dependency and reachability

Consistent with the previous literature on gender differences in volume of texting, females in our study reported higher levels of texting than males. The highest volume was from Koreans. However, a high volume of mobile phone activity can take its toll. While 10.5% of all subjects ‘liked least’ something to do with dependency, the percentage was three times as high in Korea.
For all countries combined, females were slightly more troubled by dependency than males. Females were also more likely to complain about reachability, including that others could always reach them. Overall, 52.8% of females voiced this complaint as what they ‘liked least’ about mobile phones, compared with 74.1% of Korean females.

Japanese subjects had a substantial proportion of high-volume texting (16.1% sent or received >30 texts per day). Yet unlike Koreans, the Japanese had relatively few complaints either about dependency (Korea: 30.2%; Japan: 9.7%) or about reachability (Korea: 73.0%; Japan: 36.8%). Future research is needed to explore if these low levels of Japanese complaints reflect a cultural expectation of being available to others.

6. Conclusions

New technologies enable people to alter existing patterns of communication. In their time, the telegraph and the (landline) telephone redefined assumptions about how social relationships should be conducted (Baron, 2000). More recently, it was initially assumed that the internet would equalize power relationships between genders (Herring, 2003). Yet technologies don’t automatically undo long-standing patterns of socialization. We have seen a number of ways in which traditional gendered language usage is perpetuated on mobile phones, particularly with regard to the purpose of communication, politeness considerations while in face-to-face interaction, and volume of one-to-one text communication. We have also observed novel ways in which both genders take advantages of their mobile phones’ affordances to manipulate social interaction with others. And we have seen the toll that heavy text messaging can take upon users.

Gender is just one variable that comes into play in understanding how young adults use mobile phones. In a number of instances, culture may be the critical issue, as with Americans
avoiding strangers by pretending to talk on their phones, Italians not using their phones while sitting at dinner with their families, Koreans being especially heavy mobile phone users, or Japanese being least bothered by dependency or reachability.

One challenge in explaining any empirical findings is to discern whether we have identified the relevant variables and, if so, how to weigh them. For example, we suggested that the reason females feel more troubled than males by reachability may be that females do more texting. However, we still need to explain why a sizable percentage of males (47.3%) also complained about reachability. Horstmanshof & Powers (2005) argue that many males object to mobile phones because they don’t like having to follow the ‘rules’ of mobile communication (e.g., responding to texts immediately). Perhaps males’ threshold for feeling troubled by reachability (or dependency) is lower than that of females, rendering problematic a simple comparison of what males versus females say they dislike about mobile phones.

This study is a first step in probing the sources of commonality and difference in the ways young adults use mobile phones. While we have focused here on gender issues, we also noted the importance of considering cultural dimensions. Given the centrality of mobile communication to contemporary life, sociolinguists and new media scholars have much to contribute by pursuing the sorts of questions raised in this study with other age groups, other socioeconomic cohorts and other cultures.

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