

Mobile Phone Use by University Students: Swedish, American, and Japanese Perspectives¹

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It was a glorious September day. I was walking up Aveny in Göteborg, nearing the statue of Poseidon. I had been in Sweden for less than a month of a semester-long stay to study mobile phone use. As an American, I was already struck by how quiet (at least comparatively) Swedes seemed to be in public places. I saw people talking on their mobile phones, but rarely heard them.

Suddenly I was assaulted by a booming voice from across the broad street. Searching the opposite sidewalk, I spied a man striding quickly – and talking on his mobile phone. Surprised by the volume (though unable to discern actual words), I crossed the street and unobtrusively came up behind the person I judged in violation of the Swedish mold. He turned out to be Italian – confirming two cultural stereotypes.

This paper builds upon the previous one in this session (“Mobile Phone Use by Swedish University Students”) by placing the Swedish data into cross-cultural context. Swedes were one of four groups completing our online survey on mobile phone use – the others being Americans,

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Italians, and Japanese.² Here we focus on the Swedish, American, and Japanese data, since colleagues on this panel have done research on these three countries as well.

The three variables underlying the cross-cultural project were cost, culture, and control. That is, we were interested in determining the extent to which mobile phone usage patterns are influenced by

- the cost of sending (or receiving) a voice call or a text message
- behavioral or belief patterns shaped by cultural conventions
- attempts by users to manipulate communication access

This paper concentrates on cultural issues, which (as we will see) sometimes have implications for communication access-control as well.

I. Cultural Issues and Mobile Phone Use

Do national cultural profiles exist? In the early nineteenth century, Alexis de Tocqueville thought so. He described Americans as being strong individualists (Tocqueville 2000: 482-488) and as always chasing after new pleasures (pp. 511-514). Today we speak of taciturn Finns and loquacious Italians. Obviously, not all members of a cultural group fit national stereotypes. I know quiet Italians and talkative Finns, and there are plenty of Americans who are crowd-followers or who are satisfied with the status quo. Nonetheless, most societies can be characterized in terms of parameters that allow us to predict, at least statistically, how members of those cultures are likely to behave.

² When we speak of “Swedes,” “Americans,” and “Japanese,” we are referring to subjects who reside in those countries, rather than to citizenship status.

Sweden and Japan

In his book *Swedish Mentality*, the sociologist Åke Daun attempted to capture how Swedes see themselves culturally, as well as how others perceive them. Among the traits he highlighted were being taciturn, being punctual, avoiding conflict, and offering many “thank you’s.”

Daun also points up similarities between Swedish and Japanese cultural patterns. For instance, Daun describes the implicit Swedish injunction not to stick out in a crowd or to promote one’s own abilities. My discussions in Sweden of this point inevitably led to mentions of Aksel Sandemose’ fictional town of Jante, which lived by such commandments (*Jante-lagen*) as “Thou shalt not fancy thyself better than *we*” and “Thou shalt not believe that anyone is concerned with *thee*” (Sandemose 1936: 77-78). Daun notes that Japanese share similar attitudes regarding the importance of humility (Daun 2006: 176).³

Outsiders to both cultures quickly notice other similarities. In Japan and Sweden, you take your shoes off upon entering someone’s home. In neither country do you commonly utter “excuse me” when maneuvering past another person on a busy street. (Instead, you work your way around, in silence.) By contrast, Italians are constantly saying “*Prego*” and Americans, “Excuse me.” The difference, as we’ll see, stems from broader social attitudes towards interaction with strangers.

Needless to say, there are also strong cultural distinctions between Sweden and Japan. Sweden, for example, is a welfare state while Japan is not. There is much less social conformity in Sweden than in Japan. And so on.

My interest in cultural profiles is to identify social characteristics that may be predictive of mobile phone usage patterns. That is, how is essentially the same technology used in different ways, depending upon culture?⁴

³ For more on Japanese behavioral patterns, see Doi 1971 and Lebra 1976.

⁴ For a detailed analysis of Japanese mobile phone (*keitai*) behavior and its cultural underpinnings, see Ito, Okabe, and Matsuda 2005.

Considering Sweden and Japan, three points of similarity and two of difference will be considered:

	Sweden	Japan
Similarities:		
quiet in public space	yes	yes
will strangers approach you?	no	no
safety in public space	yes	yes
Differences		
public space is for personal use	yes	no
tolerance of self-expression	yes	no

Compared with many other cultures, both Swedes and Japanese are relatively quiet in public places. Again, compared with many other societies, there is less chance of strangers approaching you and less general fear for personal safety.

As for differences, Sweden (like other Scandinavian countries) tends to view outdoor space as public space – even if legally “owned” by a specific individual. By *Allemansrätten* (literally “every man’s right,” meaning “right to roam”), I may traipse across your backyard to reach my destination without needing to ask permission. In Japan, such behavior would be unthinkable. Similarly, Sweden is highly tolerant of individual self-expression (in dress, in hair style, in sexual matters), while Japan is more conformist.

US, Sweden, and Japan

Next we add the US into the mix:

	US	Sweden	Japan
quiet in public space	no	yes	yes
will strangers approach you?	yes	no	no
safety in public space	no	yes	yes
public space is for personal use	yes	yes	no
tolerance of self-expression	yes	yes	no

Americans tend to be noisier in public than either Swedes or Japanese, and public space is less safe. In the US, it is far more common than in Sweden or Japan to be approached by strangers – asking directions, commenting on shared conditions (“Wow, it’s hot today!”), or even paying compliments (“That’s a terrific hat!”).

American attitudes towards public space offer something of a contradiction. On the one hand, in many states, Americans have the right to shoot if you trespass on “their” land. Yet like Sweden, the US is generally tolerant of individual self-expression. This American tolerance, often bolstered by appeals to the First Amendment to the US Constitution (guaranteeing freedom of speech) is reflected in ways many Americans conduct themselves in public space. They talk about private issues within hearing distance of others; they ignore traffic signals; they litter with impunity.

II. Overview of Cross-Cultural Comparisons

The cross-cultural study upon which this paper draws included an online survey (with both quantitative and open-ended questions), focus groups, and extensive observation. The survey was administered between October 2007 and May 2008. The data reported here focus on the same quantitative questions for which Swedish data were presented in the previous paper. These questions are listed in Figure 1:

Frequency of Use

- Talking: Yesterday, what was the combined total number of voice calls you made and received on your mobile phone? Include voicemails you left for other people and that you received.
- Texting: Yesterday, what was the combined total number of text messages you sent and received on your mobile phone?

Texting on Mobiles versus IM on Computers

How long have you been doing texting on a mobile phone? IM on a computer?

Do you spend more time communicating through IM on a computer or through text messaging on your mobile phone?

Reasons for Texting versus Talking with a Friend

- For texting: I want to make my message short, and talking takes too long.
- For talking: Sending a text message takes too much effort.

Appropriate Places for Use

Using mobile phone in public places: When is it acceptable to talk? to text?

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

Loudness / Being Bothered

- Loudness: Do you speak more loudly on a mobile phone than when speaking with someone standing next to you? Do other people do so?
- Bothered: Are you bothered when other people are talking on their mobile phones and they are
- talking loudly?
 - talking about personal affairs?

Avoiding Social Contact with Strangers / Feeling Safer at Night

Using mobile phone to avoid social contact with strangers or to feel safer at night by

- pretending to talk
- using other functions on mobile phones (e.g., checking text messages, listening to music, playing games)

Figure 1. Cross-Cultural Questions Regarding Mobile Phone Use

III. Findings

Frequency of Use

Our first question was how often subjects used voice and texting functions on their mobile phone.

We asked participants to reconstruct how many times they used voice or texting on the previous day. Table 1 summarizes the results:

		0-2	3-4	5-10	11-20	> 20
Sweden (N=171)	voice	36.3%	25.7%	31.6%	5.8%	0.6%
	texts	34.5%	21.6%	30.1%	9.9%	2.9%
US (N=523)	voice	22.0%	26.6%	38.4%	10.5%	2.5%
	texts	27.0%	13.4%	26.8%	15.1%	17.8%
Japan (N=529)	voice	62.4%	23.1%	12.7%	1.3%	0.6%
	texts	8.5%	9.8%	29.5%	25.3%	26.8%

Table 1. Mobile Phone Voice Calls (Made and Received) and Text Messages (Sent and Received) on Previous Day⁵

Swedes had the lowest overall mobile phone usage. More than one-third of Swedes used only 0-2 voice functions and 0-2 texting functions the previous day. Their volume of talking versus texting was also the most balanced. Research conducted in 2004 by the telecommunications operator TeliaSonera confirms that within Scandinavia, Swedes make less use of their mobile phones than some of their Nordic neighbors. While Finns averaged 249 minutes of talk time per month, Swedes used only 130 minutes. With respect to text messaging, the Norwegian monthly average was 76, while Swedes averaged only 17 a month.⁶

Considering just text messages, at the upper end of the spectrum (11 or more sent or received), Swedes were the lowest group and Japanese the highest:

⁵ Because of rounding, several rows do not sum to 100%.

⁶ "Use of Mobile Phones" 2004.

Texting: ≥ 11

Sweden	12.8%
US	32.9%
Japan	52.1%

The heaviest users of voice functions were Americans. The number of US subjects making 11 or more voice calls a day was double that of Sweden, and more than six times that of Japan:

Voice: ≥ 11

Sweden	6.4%
US	13.0%
Japan	1.9%

Japanese heavily used their phones for texting, not talking. Considering respondents who made or received only 0-4 voice calls a day, the percentages were:

Voice: 0-4

Sweden	62.0%
US	48.6%
Japan	85.5%

Texting on Mobiles versus IM on Computers

While the focus of this study is mobile phones, it is important to contextualize phone use with respect to other technologies that serve related functions. We would predict that the amount of time students have been using a particular technology might correlate with the extent to which they use it today or, all things being equal, their preference for one technology over another.

For example, Americans (especially teenagers and young adults) became heavy users of IM beginning in the late 1990s, with the appearance of America Online Instant Messenger. At that time, very few American young people owned mobile phones. In fact, text messaging was largely unknown in the US until about 2002 or 2003. In a study conducted in 2005, Baron and Ling (2007) found that out of every 10 communications on their mobile phones, college students reported only 3 involved sending or receiving a text message.

Table 2 presents the mean number of years that subjects had been using computer-based IM or mobile phone-based text messaging:⁷

	IM on Computer	Texting on Mobile
Sweden	5.9	6.8
US	7.4	3.5
Japan	3.7	5.5

Table 2. Mean Number of Years Using IM on Computer or Texting on Mobile Phone

To interpret these data, we need to recognize that not everyone in the study used IM or texting.

Table 3 summarizes the percent of people from each country who either did not use these media or had used them for less than 6 months:

	IM on Computer	Texting on Mobile
Sweden	7.6%	0.6%
US	6.8%	12.2%
Japan	46.9%	0.9%

Table 3. Percent of People Not Using IM on Computer or Texting on Mobile Phone

Of the three groups, Americans had the longest experience doing IM on computers (7.4 years) and the smallest number of people who don't use IM (6.8%). With respect to texting, the situation for Americans is reversed: the least experience texting (3.5 years) and the largest proportion of people who didn't do texting (12.2%). Swedish IM patterns were somewhat similar: 5.9 years of experience, with 7.6% non-users of IM. With texting, however, Swedes had the most experience – 6.8 years – with only 0.6% not doing texting.

Japan had the lowest IM experience (3.7 years), with a very sizable number of subjects (46.9%) not doing IM. However, like Swedes, they had substantial texting experience (5.5 years), with only 0.9% not doing texting.

⁷ We excluded IM sent from mobile phones and text messaging composed or read at a computer.

Our second question asked whether people spent more time communicating through IM on a computer or through texting on a mobile phone. Table 4 presents the percentages of people who indicated “more IM” or “more texting”:

	More IM	More Texting
Sweden	55.0%	45.0%
US	42.1%	57.9%
Japan	6.2%	93.8%

Table 4. More Time Doing IM on Computer or Texting on Mobile Phone

Given the experience each cohort had with IM and texting, we might have anticipated that Americans would be the heaviest users of IM. However, this was not the case. Instead, Swedes reported doing more computer-based IM (55.0%) than mobile-based texting (45.0%), while Americans reversed the proportions (more IM: 42.1%; more texting: 57.9%). This emphasis on texting is reflected in the fact that Americans are relatively heavy daily users of texting. As we see from the data in Table 1, 32.9% of the US subjects sent 11 or more text messages a day – nearly three times the proportion of Swedes. While I don’t have comparable American statistics from four or five years ago, the prevalence of texting over IM seems to represent a new American phenomenon. As for the Japanese, since nearly half don’t do IM, it is not surprising that the overall balance between IM and texting is so skewed towards texting (more IM: 6.2%; more texting: 93.8%).

Gender differences may help explain the Swedish and American “reversals” of expectations:⁸

⁸ In Japan, there were no clear gender differences.

	More IM	More Texting
Swedish Males	72.7%	27.3%
Swedish Females	43.8%	56.2%
American Males	50%	50%
American Females	39.2%	60.8%

Table 5. Swedish and American Gender Differences in IM versus Texting

In Sweden, males were almost three times as likely to favor IM over texting, while females were somewhat more inclined to text. American males were balanced in usage, while American females were (proportionally) even heavier texters than their Swedish counterparts. To better interpret these findings, we would need to explore such issues as gender-based differences in amount of computer use and attitudes towards telephone use more generally.

Reasons for Texting versus Talking with a Friend

The complete survey probed a variety of reasons that participants chose to send a text message to a friend rather than call – or vice versa. We focus here on two questions:

Reason for choosing to text: I want to make my message short, and talking takes too long

Reason for choosing to talk: Sending a text message takes too much effort

Table 6 indicates the percent of respondents who judged each of these a “very important” reason to choose text or talk:

	Text to Keep Message Short	Talk to Reduce Effort
Sweden	33.9%	18.1%
US	37.9%	23.7%
Japan	12.7%	52.6%

Table 6. Texting to Keep Message Short and Talking to Reduce Effort (“Very Important”)

One-third of Swedes and Americans judged texting to be an effective way of minimizing the amount of time involved in communicating with a friend. (Among Japanese, only 12.7% chose to text for this reason.) Focus group participants in Sweden and the US explained that when you text (an asynchronous form of communication), you don't need to spend time on pleasantries or listen to the other person's side of the story. By contrast, a phone call, like IM, is synchronous, affording both parties the opportunity to voice opinions, let off steam, or kill time.

While both males and females in the US engage in texting to "keep the message short," in Sweden, use of this strategy is strongly gender-linked:

Text to Keep Message Short ("Very Important")	
Swedish males	24.2%
Swedish females	40.0%

We saw in Table 5 that Swedish females (unlike males) favor texting over IM. One possible explanation is that (asynchronous) texting affords more control over the communication exchange than does (synchronous) IM. Keeping messages short by texting rather than talking is another form of control.

Responses to the second question (regarding effort) indicate that fewer Swedes (18.1%) than Americans (23.7%) find it "very important" to call rather than text because texting takes too much effort. (Gender was not a factor.) These findings are consonant with the fact that Swedes have been texting longer than Americans (6.8 years versus 3.5 years). We can assume that Swedes are more comfortable with the technology.

At first blush, the Japanese data are surprising. Although they have been texting an average of 5.5 years, and although they are the lightest users of phone voice functions, over half (52.6%) found it "very important" to talk rather than text because texting took too much effort. To

understand this conundrum, we need to look at how text messages are composed in Swedish, English, and Japanese.

There are profound differences between inputting text for an alphabetic language (such as Swedish or English) versus a character language (here, Japanese). On traditional mobile phones in the west, the user taps a number key once, twice, three times, or four times to produce a letter (e.g., “k” is two taps on the “5” key). With Japanese, text messaging entails a complex process. First you enter the word in its *hiragana* form (one of the two syllabaries used in writing Japanese). Users are then given a list of *kanji* (Chinese characters) from which to choose to write the root part of the word properly. Additional *hiragana* may be needed for grammatical endings. Moreover, foreign words that have been borrowed into Japanese must be converted to the second syllabary (*katakana*), and there is the further option of adding words in Roman script. Texting in Swedish or English is child’s play compared with Japanese.

Given the complexity of texting in Japanese, it is not surprising that subjects would identify “effort” as a reason for rejecting texting in favor of calling on mobile phones. Yet in practice, culture trumps exertion. Despite the challenges of texting in Japanese, young adults nonetheless conduct the vast majority of their mobile communication through texting.

Appropriate Places for Use

The next set of questions explored social settings in which participants judged it “always” or “usually” acceptable to either talk or text message on their mobile phones. The five venues upon which we report here are:⁹

- eating dinner at home with your family
- sitting with people you know in an informal café
- paying at the cash register at a convenience store

⁹ Additional data were collected on eating in a restaurant and on riding a long-distance train. For purposes of this paper, we have not analyzed gender issues.

- walking in public
- riding a local bus, tram, or subway

Each circumstance can also be viewed in cultural perspective, drawing upon our earlier cultural characterization of Sweden, the US, and Japan:

Venue	Cultural Issue
eating dinner at home with your family	tolerance of self-expression
sitting with people you know in an informal café	tolerance of self-expression
paying at the cash register at a convenience store	public space is for personal use
walking in public	public space is for personal use
riding local bus, tram, or subway	public space is for personal use

Table 7 summarizes the percent of subjects from each country who judged each of the five venues to be “always” or “usually” an acceptable place to talk on their mobile phone:

Venue	Sweden	US	Japan
eating dinner at home with your family	14.6%	3.5%	13.0%
sitting with people you know in an informal café	42.7%	22.6%	13.8%
paying at the cash register at a convenience store	57.3%	22.4%	31.6%
walking in public	97.7%	94.6%	73.7%
riding a local bus, tram, or subway	89.5%	67.1%	4.0%

Table 7. Situations in Which “Always” or “Usually” Acceptable to Talk on Mobile Phone

Table 8 summarizes results with respect to text messaging:

Venue	Sweden	US	Japan
eating dinner at home with your family	35.7%	22.8%	22.7%
sitting with people you know in an informal café	64.9%	59.7%	26.7%
paying at the cash register at a convenience store	48.0%	34.2%	47.3%
walking in public	95.3%	84.3%	76.2%
riding a local bus, tram, or subway	98.2%	94.3%	83.7%

Table 8. Situations in Which “Always” or “Usually” Acceptable to Text on Mobile Phone

Tolerance of Self-Expression: Eating Dinner at Home with Family, Sitting with People You Know in Informal Café

The first two questions (eating at home with family members, sitting with friends in an informal café) both involve the physical presence of familiar people. Swedes were more likely to say it is “always” or “usually” acceptable to talk on your mobile phone while eating at home (14.6%)¹⁰ than were Americans (3.5%) or Japanese (13.0%). Swedes were twice as comfortable as Americans talking in a café while with friends (42.7% vs. 22.6%), while the Japanese were much less so (13.8%).

Several Japanese colleagues¹¹ have suggested that in contemporary Japan, cafés are often fashionable places that people perceive as being more “public” than Swedes or Americans might view comparable spaces. While the number of Japanese who felt comfortable talking on the phone at the family dinner table was surprising high (13.0%), we must remember that the mobile phone is an integral – and accepted – part of everyday life in Japan. (In future research, it will be important to study phone use in private space in Japan, by way of comparison with our survey.) With regard to the American data, several focus group participants noted that they felt “left out” if they were eating with someone and that person either made or received a call.

Text messaging while eating at home or at a café with friends was more acceptable across the board than talking. Again, Swedes led those comfortable with the practice (home: 35.7%; café: 64.9%). Americans were far more comfortable texting than talking at the family dinner table (texting: 22.8%; talking: 3.5%). This discrepancy is reminiscent of American classrooms, where students know they are not allowed to talk but believe they can manage (with or without the teacher’s approval) to text.

¹⁰ A TeliaSonera study from 2004 reported that 24.6% of Swedish respondents judged it was always acceptable to talk on their mobile phone during a family dinner (“Swedes Like to Talk While They Eat,” Press Release, TeliaSonera, November 11, 2004).

¹¹ I am grateful to Misa Matsuda and Kumi Iwasaki for discussion of these issues.

The discrepancy between American and Japanese acceptance of texting in cafés when sitting with friends is stark. American are twice as likely as Japanese (US: 59.7%, Japan: 26.7%) to approve of the practice. Again, the explanation probably lies in the fact that Americans are more likely to perceive a venue such as Starbucks as casual space (inviting personal use), while Japanese may see the *kisaten* (coffee shop) as public space requiring public behavior.

Taken together, these data are largely consonant with the cultural description of Swedes and Americans being more tolerant of self-expression (here, communicating with non-present others) than Japanese. The extremely low figure for Americans talking on their phones while at the family dinner table might partly reflect the fact that many American families rarely eat dinner together.¹² When they do, it becomes, by default, a more formal occasion.

Finally, a word on gender issues: Although we have not presented the data here, males from each country were more likely to find talking on their phones in these two circumstances more acceptable than did females.

Public Space for Personal Use: Paying at the Cash Register; Walking in Public; Riding a Local Bus, Tram, or Subway

Swedes were nearly three times as likely as Americans (Sweden: 57.3%; US: 22.4%) and almost twice as likely as Japanese (31.6%) to talk on their phones while conducting a transaction at a convenience store. When it came to texting, Swedes and Japanese were nearly on par (Sweden: 48.0%; Japan: 47.3%), with Americans less likely to be texting (34.2%).

Interpreting these findings necessitates not just an understanding of social custom but also awareness of levels of texting facility, as well as a sense of how subjects may have interpreted the question. The fact that one out of three Japanese felt it was “always” or “usually” acceptable to

¹² One estimate, from a study by ConAgra, is that 40% of American families eat together only three or four times a week (http://findarticles.com/p/articles/mi_m4PRN/is_2003_May_30/ai_n27743326).

talk on their phones while paying at a cash register (compared with only one out of five Americans) may reflect the more general public behavior of many Japanese towards people they don't know. For example, during morning and evening rush hour, many Japanese will shove their way onto commuter trains, essentially ignoring any sense of social decorum. After all, those other people on the train are strangers. Perhaps the same attitude extends to convenience store clerks.

Looking at the Swedish data, it is interesting that while 57.3% felt it was appropriate to talk while conducting a financial transaction,¹³ only 48.0% indicated that texting was appropriate. Informal conversations with Swedish young adults suggested that the problem with texting was more physical than social: It's easier to multitask between talking on the phone and paying money than between texting and paying. Perhaps some of the subjects (Swedish as well as others) took the word "acceptable" to mean "physically reasonable" rather than "socially appropriate." As for discrepancies in texting between Swedes and Japanese on the one hand, and Americans on the other, the Americans had the lowest average experience in texting (Sweden: 6.8 years; Japan: 5.5 years; US: 3.5 years).

When walking in public, Swedes and Americans nearly all felt it was acceptable to talk on their mobile phones (Swedes: 97.7%; US: 94.6%). The Japanese trailed significantly behind (73.7%). These findings are consonant with our initial cultural observation that in both Sweden and the US, it is more appropriate to make private use (here, talking on the phone) of public space than in Japan.

The texting story is a little more complex. The Swedish percentage (95.3%), was only slightly lower than responses for talking while walking in public (97.7%). We have already seen that Swedish use of voice and texting functions on their phones in general is roughly equal.

¹³ Research from 2004 by TeliaSonera found that 81.6% of Swedes felt it was always acceptable to talk on their mobile phone in a shop – though the question did not specify paying at a cash register, which may account for the higher percentage in the TeliaSonera data ("OK to Talk on Your Mobile Phone While Shopping," Press Release, TeliaSonera, November 30, 2004).

American acceptance of texting while walking in public is lower than for talking (talking: 94.6%; texting: 84.3%), which may reflect less texting facility than in Sweden. In the case of Japan, acceptability of talking and texting while walking is roughly equal (talking: 73.7%; texting: 76.2%). However, the explanation for each pattern may be different. On the one hand, Japanese talk relatively little on their phones to begin with, in part because of cultural conventions restricting individual expression in public space. On the other hand, given the complexity of texting in Japanese, it ends up being a more cumbersome task than texting in an alphabetic language such as Swedish or English.

The last question in this cluster explored acceptability of talking or texting while riding local public transportation (a bus, a tram, a subway). The starkest difference was between talking in Sweden and talking in Japan: 89.5% acceptance (i.e., “always” or “usually” acceptable) in Sweden but only 4.0% acceptance in Japan. In the case of Sweden, we see yet one more example of comfort in conducting private business in public space. In Japan, the finding directly reflects explicit social pressure not to speak on a mobile phone while riding in public transportation.¹⁴ On buses in Kyoto, for example, a recorded message asking people to use their mobile phones considerately (meaning, don’t talk, plus don’t use the phone at all around seating for the elderly) is played over and over. On the Tokyo subway system, signs in every car admonish riders not to speak on their phones.

The situation in the US is interesting, but for a different reason. More than half of the American data were collected in the Washington, DC area, which is served by a subway network. (There are also buses, but participants in the survey probably made greater use of the subway.) Although there are no social strictures against using mobile phones (either for talking or texting) on the subway, often the reception is poor – or nonexistent. Therefore, the comparatively low

¹⁴ On longer-distance trains in Japan, riders may speak on their mobile phones in the space between train cars.

percent of Americans (67.1%) who “always” or “usually” found it acceptable to talk on their mobile phones while on local transportation may reflect the fact that calls are commonly dropped while moving through subway tunnels. Support for this hypothesis comes from the fact that subjects in Washington were less likely to find talking on a local bus or subway to be acceptable than subjects from Michigan (the second US data-collection site), where there is only bus service.

Swedes, Americans, and Japanese all found it more acceptable to do texting on local transportation than to talk. The difference between talking and texting sharpest for Japan (talking: 4.0%; texting: 83.7%), which is understandable, given that texting on buses and subways is acceptable, except near seats for the elderly.

Finally, a word on gender issues. Although we have not presented the data here, males from all three countries were more likely than females to find talking on their phones acceptable at the cash register and while riding local transportation. (For walking in public, responses by gender were roughly equal.)

Loudness/Being Bothered

Our next questions concerned how loudly people spoke on their mobile phones and whether subjects were bothered by overhearing particular sorts of conversations. With regard to loudness, we inquired whether the subjects themselves and whether other people spoke more loudly on mobile phones than when speaking face-to-face. Other questions involved the extent to which subjects were bothered when other people spoke loudly and when they heard other people talk about personal affairs. Both clusters of questions correlate with cultural issues:

Question	Cultural Issue
Do you speak more loudly on a mobile phone?	quiet in public space
Do other people speak more loudly on mobile phone?	quiet in public space
Are you bothered when others speak loudly?	tolerance of self-expression
Are you bothered when others talk about personal affairs?	tolerance of self-expression

Note that the first two questions asked about people’s perceptions, which don’t necessarily correspond to actual behavior. Also note that while the first question was limited to people 18-24 years old, we did not specify the age of “other people” who might be speaking loudly.

Table 9 presents findings with respect to speaking loudly “always” or “usually.” Table 10 summarizes data regarding behaviors of others that bothered our subjects “very much”:

Question	Sweden	US	Japan
Do you speak more loudly on a mobile phone?	24.0%	23.9%	9.3%
Do other people speak more loudly on a mobile phone?	50.3%	54.5%	10.0%

Table 9. Responses of “Always” or “Usually” to Questions Regarding Loudness

Question	Sweden	US	Japan
Are you bothered when others speak loudly?	33.9%	61.0%	71.6%
Are you bothered when others talk about personal affairs?	19.3%	34.4%	23.1%

Table 10. Responses of “Very Much” Regarding Being Bothered

Swedes and Americans had similar perceptions regarding the volume of their own speech on mobile phones and the speech of others. While one-quarter of each cohort judged themselves to “always” or “usually” speak more loudly on a mobile phone than face-to-face, half the subjects passed such judgment on other speakers. Japanese respondents were far less prone to perceive themselves – or others – as speaking more loudly on mobile phones (self: 9.3%; others: 10.0%).

We earlier suggested that both Swedes and Japanese are generally quieter in public space than Americans. While the Japanese data support this characterization, Swedes perceive themselves – and others – to be as noisy on their mobile phones as Americans. In interpreting the Swedish and American findings, several factors are relevant. First, we did not ask subjects to rate overall volume level of face-to-face conversations. If these baselines are lower in Sweden than in the US, then mobile phone volume in Sweden could be lower as well. Second, in the Swedish

focus groups, one student indicated he intentionally spoke more softly on his mobile phone than in face-to-face conversation, as a way of not imposing his conversation on others. Third, while I have no hard data, my experience in the US over the past ten years is that as people have become increasingly comfortable using mobile phones, their overall volume level has decreased. That is, I suspect that five years ago, an even higher proportion of Americans would have reported that both they and other people spoke more loudly on mobile phones than face-to-face. And finally, in many societies, it is common to judge others more harshly than we judge ourselves for engaging in the same negative behaviors – helping explain the Swedish and American disparities between questions in Table 9.¹⁵

Swedes were the least bothered by other people’s mobile phone conversations – either because of the volume or the topic (Table 10). Only 33.9% of Swedes indicated they were bothered “very much” when other people spoke loudly – compared with 61.0% of Americans and 71.6% of Japanese. Similarly, only 19.3% of Swedes were bothered “very much” by hearing other people talk about personal affairs on their phones. These findings are consonant with the description of Swedes as tolerant of self-expression.

Americans – who also are often described as tolerant of self-expression – were bothered nearly twice as much as their Swedish counterparts in both situations. This disparity between ideology and practice has many analogues in everyday life: Americans may believe in the US Constitution (and accompanying Bill of Rights) yet support book censorship or telephone wiretapping without search warrants. Many Americans support having the government build low-income housing – just not in their backyard. Just so, while free speech is a cherished American right, a substantial number of our subjects were bothered when others spoke freely – and loudly – on their mobile phones.

¹⁵ While there were a number of gender differences, they were too disparate to report here.

The Japanese were most bothered (71.6%) when others around them spoke loudly on mobile phones. It is useful to put this statistic in context. Japanese are least likely to speak on their mobile phones in general – and especially in public. Moreover, Japan highly values quiet in public space (including in face-to-face conversation). From an early age, Japanese children are trained not to engage in *meiwaku* behavior, that is, behavior that may be bothersome to others. Speaking loudly in public is one form of *meiwaku* behavior, as is speaking at all on your mobile phone while riding a bus or train. Therefore, our Japanese subjects were probably more sensitive than Swedes or Americans to loud mobile phone conversations of other people.

However, this logic seems not to hold when we look at the number of Japanese who indicated they were bothered “very much” when other people talked about personal affairs on mobile phones. Barely one-quarter (23.1%) said that overhearing such conversations was very bothersome, compared with 19.3% of Swedes and 34.4% of Americans.

Why were Japanese bothered even less than Americans? The answer may lie in another aspect of Japanese culture: Ignore people you don’t know. As we noted earlier (see Tables 7 and 8), the Japanese were more likely than Americans to talk or text while paying at a cash register. One hypothesis is that since the Japanese didn’t know the clerk, there was diminished need to engage in the polite behavior of giving the clerk (and the transaction) undivided attention. On buses and commuter trains, Japanese have turned social avoidance into a fine art – fiddling with the non-voice functions of their mobile phones or pretending to sleep so as virtually to isolate themselves from the crowd. Perhaps in the same way, they are more skilled at tuning out other people’s mobile phone conversations, when they occur. In contrast, it seems likely that Swedes are simply less likely to care. (Recall that Swedes were the most comfortable speaking on their phones in all the contexts we noted in Tables 7 and 8.)

One last note on gender: In all three countries, males were more bothered than females at hearing mobile phone conversations concerning other people's private affairs (especially so in Sweden and Japan). It would be interesting to compare this finding with cross-cultural social surveys of male and female gossip, as well as with the extent to which males and females are comfortable talking about their personal affairs face-to-face. In our study, females may have found the conversations more familiar – and more interesting – and therefore less bothersome.

Avoiding Social Contact with Strangers / Feeling Safer at Night

Our last group of questions explored use of mobile phones to avoid contact with strangers,¹⁶ including strangers who might inflict harm. Our questions were:

Do you ever pretend to be talking on your mobile phone to
avoid having a stranger talk with you?
to feel safer when you are walking alone at night?

Do you ever use other functions on your phone (e.g., writing or checking text messages,
listening to music, playing games) to
avoid having a stranger talk with you?
to feel safer when you are walking alone at night?

We were interested in the frequency with which people engaged in these behaviors, tallying responses of “at least once a week” and “about once a month” – which we combined into the category “At least once a month.” These questions relate to two of our cultural considerations: whether strangers will approach you, and the safety of public space.

Table 11 summarizes the percent of subjects who at least once a month used their mobile phones to forestall social contact with strangers, either by pretending to talk or by occupying themselves with other functions:

¹⁶ See Baron 2008 for discussion of use of mobile phones to avoid social contact with acquaintances.

Issue	Sweden	US	Japan
pretend to talk to avoid stranger talking to you	3.5%	15.1%	6.1%
use other functions to avoid stranger talking to you	18.1%	25.6%	25.1%
pretend to talk to feel safer at night	13.5%	22.0%	11.2%
use other functions to feel safer at night	14.6%	19.1%	29.5%

Table 11. “At Least Once a Month” Use Phone to Avoid Strangers / Feel Safer at Night

While 15.1% of Americans pretended to talk to avoid strangers at least once a month, this behavior was infrequent in Sweden (3.5%) or Japan (6.1%). Both in Sweden and Japan, it is far less common for strangers to approach you than in the US. In fact, when I was constructing this questionnaire during my research stay in Göteborg, my students were puzzled by the question: “In Sweden,” they told me, “strangers don’t come up to you.” As for Japan, a personal experience illustrates the paucity of such contact. During my month-long research trip to Japan, I often needed to ask for directions – a normal enough task in the US or most of Europe. However, when I approached a Japanese with my usual, “*Sumimasen*” (‘Excuse me’), I often sensed a level of suspicion. In fact, one well-dressed middle-aged woman fled in the opposite direction when I approached her.

In all three countries, people were more likely to occupy themselves with textual, graphic, or music functions to avoid someone approaching them than to pretend to talk for the same reason. Again, Swedes engaged in such behavior the least (18.1%). In a focus group in Sweden, students explained to me that it made no sense to pretend to talk because “that would be lying.”¹⁷ More than five times as many Swedes used other functions on their phone to avoid strangers. While they might not really have wanted to listen to music or read old text messages, at least they weren’t lying.

¹⁷ Several also were concerned they might be “found out” (e.g., if their phone rang”).

In both the US and Japan, one out of four respondents used other functions at least once a month to avoid having contact with a stranger. However, it does not necessarily follow that “contact” had the same connotation in the two countries. In the US, contact with strangers too often involves the potential for danger, including theft or bodily harm. In Japan, avoidance of strangers is more likely to be motivated by a desire to create personal space when surrounded by other people one doesn’t know – however innocuous they may be.

While gender was not a factor in pretending to talk to avoid contact with strangers, there were strong gender differences when it came to using other functions on the phone to avoid strangers. Table 12 gives the percent of subjects, by gender, who engaged in this behavior at least once a month:

	Sweden	US	Japan
Use other functions to avoid strangers			
males	6.1%	17.2%	20.1%
females	25.7%	28.7%	27.2%

Table 12. Gender Differences in Using Other Functions to Avoid Strangers

While females everywhere were more likely than males to use other phone functions to avoid contact with strangers, four times as many Swedish females did so as males.

Our final questions gauged the extent to which subjects either pretended to talk or used other functions on their phones to feel safer at night. Both Swedes and Japanese pretended to talk (Sweden: 13.5%; Japan: 11.2%), but only half as often as Americans (22.0%). The highest proportion of people using other phone functions to feel safe at night were Japanese (29.5%), followed by Americans (19.1%) and then Swedes (14.6%).

However, when we look at the gender break-down on the two safety questions, we find (Table 13) that females in all three countries account for the preponderance of subjects using these two functions “at least once a month”:

	Sweden	US	Japan
Pretend to talk to feel safer			
males	0.0	6.4	3.9
females	21.9	27.7	14.9
Use other functions to feel safer:			
males	4.6	9.3	13.0
female	21.0	22.7	36.3

Table 13. Gender Differences in Mobile Phone Use to Feel Safer

Females everywhere were far more likely than males to their phones as protective devices.

The proportion of Japanese females who pretended to talk in order to feel safer at night was the smallest of the three countries. The fact that in general Japanese overwhelmingly use their phones for texting functions rather than talking is also reflected in our finding that Japanese females were the most likely (of all three countries) to use “other functions” on their phones to feel safer when walking alone at night. Given the enormous amount of commuting that urban Japanese do – generally alone and often late at night – the fact that Japanese females look to a phone for support is hardly surprising, even if they are not using a function that could summon another person for help.

American students explained to me that they felt potential predators would assume a person talking on a phone could easily summon help, whether this was actually true or not. Given the ubiquity of texting in Japan, perhaps Japanese females projected that potential predators would assume someone using any function on a mobile phone could summon help as well.

IV. Summary and Concluding Remarks

This paper has presented a first look at cross-cultural data on mobile phone use by 18-24 year-old university students in Sweden, the US, and Japan. Our core question has been to what extent cultural issues shape differential use of essentially the same technology.

Our data have involved a broad variety of usage measure. Figure 2 summarizes what we found:

Frequency of Use	Americans talked the most on their mobile phones, and Japanese the least. However, Japanese were the most prolific texters. Swedes were moderate users of both voice and texting functions.
Texting versus IM	Swedes had the longest experience with texting (on mobile phones) and Americans the shortest. Although American had been doing IM (on computers) the longest, they had a slight preference for texting. By contrast, Swedes has a slight preference for IM. Japanese had little IM experience and preferred texting.
Texting versus Talking	Swedes and Americans often choose texting over talking to keep their messages short. Japanese choose (in principle) to talk rather than text because texting took too much effort, though in practice, they used far more texting.
Appropriate Places to Talk	Swedes were the most comfortable talking and texting on mobile phones when in the company of people they knew (eating dinner, at a café) or in public space with strangers (paying at a cash register, walking in public, riding local transportation). Japanese were most reticent to talk while riding local transportation, but also hesitant to talk or text while among friends at a café. Japanese were comparatively comfortable talking and texting while walking in public, but less so than Swedes or Americans.
Loudness/Being Bothered	Swedes and Americans were twice as likely to judge other people as speaking louder (on mobile phones than face-to-face) than they judged themselves to do so. Japanese saw less difference – both for themselves and others. However, Japanese (followed by Americans) were most bothered when others spoke loudly, and Americans (especially males) were most bothered when others discussed personal affairs.
Avoiding Strangers/Safety	Swedes and Japanese rarely pretended to talk to avoid contact with a stranger, but all three groups used other functions on their phone for this purpose. Americans were most likely to pretend to talk to feel safer when walking alone at night. Japanese were most likely to use other functions on their phone for this purpose.

Figure 2. Cross-Cultural Summary

While our focus in this paper is cultural, several of the factors we examined evidence forms of control that users exercise over their interaction with others. Two clear examples are choosing to text rather than talk to keep the message short (used by Swedes and Americans) and using the phone to avoid contact with strangers (particularly strong among Americans, but also employed by Swedes and Japanese through use of other functions than pretending to talk).

How do our data bear on differences in the cultural traits we identified for Sweden, the US, and Japan? Figure 3 summarizes our findings:

	Sweden			US			Japan	
Trait	Y/N	Mobile Evidence	Y/N	Mobile Evidence	Y/N	Mobile Evidence		
Tolerance of self-expression	yes	Most talkers at dinner, in café Least bothered when others speak loudly, discuss personal affairs	yes	Text at dinner (BUT: don't talk at dinner) Some talk, much texting at café BUT: bothered when others speak loudly, talk about personal affairs	no	Fewest talkers in café (BUT text at dinner) Bothered when others speak loudly		
Public space is for personal use	yes	Most talkers at cash register, walking, riding local transportation	yes	Talk while walking, riding local transportation (BUT: not at cash register)	no	Fewest talkers while walking, riding local transportation (BUT: talk at cash register)		
Quiet in public space	yes	Moderate number of voice calls (BUT: judge others speak more loudly on phone than F2F)	no	Largest number of voice calls (BUT: judge other people speak more loudly on phone than F2F)	yes	Smallest number of voice calls Don't speak more loudly on phone than F2F – and others don't either		
Will stranger approach you?	no	Don't pretend to talk (BUT: use other functions)	yes	Pretend to talk, use other functions	no	Don't pretend to talk (BUT: use other functions)		
Safety in public space	yes	BUT: some – esp. females – pretend to talk and use other functions	no	Pretend to talk and use other functions (esp. females for both)	yes	BUT: some pretend to talk and most use other functions (esp. females for both)		

NOTE: “BUT” indicates contrary to cultural prediction

Figure 3. Mobile Phone Evidence Regarding Cultural Traits

Overall, the mobile phone data are largely consonant with the cultural characteristics we identified for Sweden, the US, and Japan. Some of the exceptions can be explained by other cultural or social factors (e.g., Japanese commuting alone at night, females being more vulnerable than males) while others are reminders that we must be cautious in making cultural generalizations and especially cautious in applying generalizations to data collected from a limited demographic sample.

In light of these caveats, these are some preliminary conclusions we can draw about the role of culture in shaping mobile phone practices:

- Swedes are most tolerant of self-expression in the presence of others. Americans present a mixed profile, while Japanese are least permissive.
- Swedes feel most comfortable using public space for personal use, followed by Americans and then Japanese.
- Japanese are the quietest in public space and Americans the least. Japanese are most bothered when others speak loudly.
- Americans use both voice and non-voice functions of mobile phones to avoid contact with strangers, though Swedes and Japanese use largely non-voice functions for this purpose.
- Females in all three countries are more likely than males to use phones to feel safer at night. Americans pretend to talk most often, while Japanese use non-voice functions most often for this purpose.

There are some obvious mismatches between cultural presuppositions and mobile phone behaviors. Americans have mixed sentiments regarding tolerance of self-expression and utilization of public space for personal use. Females in all three groups have safety concerns at night, and all three groups (especially females) devise ways to avoid contact with strangers.

The research reported here contributes to our understanding of how culture impacts mobile phone use. To get a fuller picture, it will be important to consider other cultural variables and additional demographic groups within these three countries, not to mention surveying a broader range of cultures. The other papers in this session help move these objectives forward.

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