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Minding Your Mobile Manners: A Cross-National Comparison

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Minding Your Mobile Manners: A Cross-National Comparison

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Abstract

Mobile phones offer a new marketing channel, but socially there are concerns about their intrusiveness. Marketers need to understand the social etiquettes governing their use in order to exploit their value. In addition, the use of mobiles whilst driving is the cause of car accidents and is illegal in some parts of the world. A study of 893 United States, Australian and Chinese tertiary students showed that there was widespread but not universal agreement that usage was inappropriate in places of worship, classrooms and libraries or while driving a car. Australian and Chinese students were more tolerant of mobile usage than Americans in most situations, apart from use while driving. The study showed a conflict between actual driving behaviour and views on the desirability of using mobiles while driving. The persistence of talking while driving should be a concern to those who promote road safety. Use of SMS was more broadly tolerated in class and in picture theatres than was speaking on a mobile phone. The use of inbound and outbound telemarketing is limited by the social etiquettes discovered. Further research into tolerable mobile behaviour in various public and private spaces is required in order to make best use of this marketing medium.

Introduction

Marketers have an interest in emerging technologies for three reasons -- to market them, to use them as new communications media or to engage in social marketing where the new technologies foster behaviours society finds unacceptable. A classic new technology is the mobile phone, first introduced in the US in 1973 (Bellis 2007). Initial adoption was slow, but in the 1990s, smaller phones were introduced, new features added and coverage extended. Adoption, especially by younger groups, has been high in all sufficiently affluent markets (e.g. Kataria 2006). The growth in short messaging services (SMS) has also been spectacular. China reportedly sends 15.6 billion SMS messages per month (Itfacts 2007). Similar heavy usage patterns were reported in the US (Lawson 2004) and Australia (ACA 2003).

Inevitably society will develop sets of social rules (e.g. AMTA 2004) to regulate emerging social behaviours if it deems them to be illegal, unsafe or merely undesirable. These reflect both utilitarian moral values and deontological views that some behaviours are wrong (Thiroux and Kraseman 2007), such as talking loudly in a place of worship or dangerous, such as using a mobile phone while driving. Marketers may be asked to design social marketing campaigns aimed at responsible use of mobiles in public places and in private spaces, like cars. In order to design such campaigns, marketers need knowledge of the social etiquette of mobile phone usage in such situations. This study explores a set of social rules in three cultures by extending work initially conducted in the United States (Lipscomb et al. 2007) to one that may be considered similar, Australia and one that may be thought different, namely China. However, because the study focuses on younger people who are studying-- a rival surmise is that youth culture may be stronger in this new area of behaviour than are mainstream cultures, promoting similar rules and socialisation in all groups.

Mobile phones can be observed to facilitate informal, loosely defined social groups. They are now seen as agents of socialisation because they foster social development and exchange (Wakefield 2003). Events, social gatherings and word of mouth can all be organised on the fly by these groups (Ling and Yttri 2002). In addition, a convergence of technologies such as music players, portable internet connections, PDAs and basic cameras have encouraged extended mobile use beyond the home and office. Marketers have begun to use the mobile phone as a promotional medium of choice to young people. Chat lines and groups, downloaded ring tones, SMS promotions and spam, competitions entered by SMS and evictions from television reality shows organized through SMS are all examples of this use.

All this suggests that the mobile phone has become part of the way of life of most people of a middle class background, especially students among whom ownership appears nearly universal. The ubiquity of mobile phones on campuses and in urban environments beyond the home and office is obvious. This very ubiquity has created two real sets of social problems, each likely to spawn ethical rules about how consumers should behave (Srivastava 2006).

First, car accidents involving the continuing use of mobile phones and even texting while driving have raised safety issues and contributed to accidents (McEvoy et al. 2006). As a consequence some countries like Australia banned mobile use unless it is hands free, as have some States in the United States (Cellular News 2007; Krotz 2007) and some districts in China (including Shenzhen, the site of the current study). Even where hands free phones are used, the increased cognitive load and driver distractions interfere with driving skills (Hancock et al. 2003).

While usage occurs even when it is illegal (McEvoy et al. 2006), it is *hypothesized (H1) that in Australia and China this practice is more likely to be condemned as socially inappropriate than in the United States.*

Second, as those in public life will attest, the sheer reach of mobile phones creates a potential for intrusiveness. Train travelers (Samuels and Jaffe 1994; Moran 2005), funeral attendees (Singh 2003), concert pianists (Silva 2001), restaurant goers (Bradley and Shaw 2004) and education commentators (Campbell 2006) have all noted the intrusiveness wrought by these devices. Talking on the phone means that people in carshot are forced to listen. In addition, ring tones are designed to attract attention. In public spaces like a lecture theatre, the stage belongs to the presenter not the person called. Thus mobile phone use is most unlikely to be supported morally in such places, whereas fewer restrictions may be apparent in spaces like supermarkets where there is already bustle and noise. It is harder to predict inter-country differences, though mobile penetration has been lower in the US than elsewhere in the OECD (ACA 2003), including Australia. While there might be stereotypes about how various cultures behave in public spaces, universal student cultures may render that irrelevant.

It was therefore *hypothesized that there would be similarities in the three countries in terms of public spaces (H2).*

In private spaces, it was *hypothesized that in the US, social rules would be stronger for religious places (H3), given stronger levels of devotion there (USA Today 2005) than in Australia or presumably, China.*

SMS texting is a more private, less intrusive activity (Geser 2004) and thus it was *hypothesized to be acceptable in a wider range of situations than would talking on a mobile phone (H4)*.

Method

This study was conducted by means of surveys among tertiary education students in Australia, the United States and China. Such groups are appropriate for this type of study because of the far higher incidence of mobile phone usage among younger people (Greenspan 2004), the fact that many are studying away from family or school friends and a likely peer pressure to have and use mobiles. In Australia, the sample consisted of 179 students drawn from second year undergraduate and graduate students in marketing at an Australian university in Victoria. In the US, the sample was based on 614 college and postgraduate business students in Louisiana, North Dakota, Connecticut, Colorado, California, Wisconsin and West Virginia. In China, the study consisted of 100 business students, mainly postgraduate, studying marketing at a University in Shenzhen where the language of instruction was English. All the Australian, US and Chinese students used mobile phones, confirming their ubiquity. The Australian and US data were collected in 2004 and 2005, the data from China in 2006.

The questionnaire was based on one first used in the American study (Totten et al. 2005) among business students in the United States. The questions were based on previous literature on places where mobile phones were said to be intrusive, on focus groups held with students in the US, on observation and on informal discussions with students. Each item shown in Table 1 was in the form of a 5-point Likert scale ranging from Disagree Strongly (1) to Agree Strongly (5). In order to avoid halo effects, the direction of half the items was reversed. The format was kept the same for both countries, except that in Australia and China the term “mobile phone” was used in place of “cell phone” in the US. In addition, questions were added to the Australian and China questionnaires about SMS etiquette, using items that matched those for mobile phone talk. Questionnaires were a single double-sided sheet given out in class for self-completion.

The 5% significance level was used, appropriate to the size of the samples. As the between group variances were not always homogeneous, Tamhane’s T2 post-hoc comparisons were used throughout.

Results

Results were computed separately for mobile phone speech and SMS usage.

Mobile Phone Speech

Table 1 shows the reported frequencies of use. Usage was high in all groups, at least daily for 80 per cent or more of people. Usage was somewhat higher in China than elsewhere (comparing the combined “up to once a week” with the other groups, $\chi^2(8) = 55.7$).

	Country of Origin			Total
	USA	Australia	China	
Less than once a month	.5%	.6%		.5%
Once a week	.3%			.2%
Two or three times a month	.8%	.6%		.7%
Once a week	2.0%	.6%	1.0%	1.6%
Several times during the week	12.5%	13.1%	5.0%	11.8%
Daily	16.0%	24.4%	41.0%	20.5%
Two to five times a day	27.0%	34.1%	13.0%	26.8%
More than 5 times a day	40.9%	26.7%	40.0%	37.9%
n=	607	176	100	883

Table 1 **Reported Mobile Phone Usage**

The results for attitudes to mobile phone usage are shown in Table 2. Respondents read a statement about mobile phone use and were asked to rate it for the level of agreement or disagreement using a five-point Likert scale. They revealed a set of social rules regarding the inappropriateness of talking on a mobile phone in situations such as in class or in a place of worship. They also showed an acceptance of use in places such as supermarkets or of using mobiles hands-free while driving a car. Given only a five-point rating scale, variability was high suggesting a widespread divergence of opinion on social etiquette. The widest variability was noted for talking on a mobile phone in a movie theatre – a minority of people saw this use as being acceptable even during a movie.

In the column labelled “F” in Table 2, is the outcome of a two-way ANOVA based on country of residence (COR) and extent of Use (as shown in Table 1). The following uses were judged as inappropriate overall (a mean below 3) – using a mobile whilst driving, in a place of worship, in class, in a library or during a movie. Other activities were judged as more appropriate.

There were clear differences between the three countries in terms of etiquette. The first was talking on a hand-held mobile while driving. In the US, 88 per cent reported doing so, as did 44 per cent of Australian students and 10 per cent of Chinese students. In Australia and China (Shenzhen) this is illegal behaviour and it was far less tolerated and less often reported. These results strongly support Hypothesis 1. In the US, talking on cell phones while driving is banned in some States but not others. In terms of country comparisons, both China and Australia were different from the US, but not from each other. Frequency of use of mobile phones had no overall effect. As expected, those who used a mobile while driving were more likely to find it appropriate, $\chi^2(4) = 29.0$. However, of the 609 people who reported driving while using their mobile, 200 thought it was inappropriate behaviour.

In contrast, when hands free use while driving was considered, the country differences just failed to reach significance, while there was a slight effect of frequency of use. People who reported using their phones at least five times a day were more likely to approve than those who reported just daily usage. As expected, overall more people felt it appropriate to use a hand-free phone while driving rather than use a hand-held phone ($t(858) = 24.7$).

<i>Mobile/cell phone talk</i>	<i>USA</i>		<i>Australia</i>		<i>China</i>		<i>F</i>	
	\bar{x}	<i>s.d</i>	\bar{x}	<i>s.d</i>	\bar{x}	<i>s.d</i>	COR	Use
It is appropriate to use a hand-held mobile while driving.	2.9	1.2	2.1	1.4	1.8	1.2	10.02	0.88
It is appropriate to use a mobile during worship/church.*	1.5	1.1	1.8	1.3	2.4	1.4	7.87	0.41
It is appropriate to use a mobile during a class.*	1.5	1.1	2.0	1.3	2.4	1.5	4.79	0.91
It is appropriate to use a hands-free phone while driving.	4.1	1.2	4.1	1.1	3.3	1.3	2.82	2.45
It is appropriate to use a mobile in a restaurant.	3.0	1.2	3.4	1.3	3.6	1.1	10.08	1.28
It is appropriate to use a mobile in a library.*	2.1	1.3	2.3	1.2	2.3	1.5	0.97	1.11
It is appropriate to use a mobile on public transportation.	3.7	1.1	3.8	1.3	3.4	1.1	1.25	1.96
It is appropriate to use a mobile in the bathroom.*	3.3	1.3	3.4	1.3	3.0	1.1	0.97	0.48
It is appropriate to use a mobile in the supermarket.*	4.1	1.2	4.2	1.2	3.4	1.3	1.44	0.37
It is appropriate to use a mobile in a movie theatre (during a movie)	2.0	1.6	2.2	1.6	2.2	1.4	1.52	0.09
	n = 570		159		96			

* Actual item wording was “inappropriate”. However, the scores on these items were reversed for comparability. Statistically significant two-way ANOVA main effects are shown in **bold**.

Table 2: Summary Results for Suitability Items for Making Calls

In places of worship, there were again clear country differences, with the US students being least likely to approve and the Chinese most likely. Both were significantly different from Australian students. Again, frequency of use had no direct effect, though there was a significant interaction between country and usage level. Essentially frequent users in China were even more likely to approve the use of mobiles. For classroom use, Australian and Chinese students were more likely to approve of their use than were their American counterparts. Similarly both groups were more likely than were their American counterparts to approve mobile use in restaurants.

There were no differences between the groups in terms of use of mobiles in a library. On average, most people in all groups felt it was somewhat inappropriate. There were similarly no differences between groups in terms of use while on public transport – in all countries the majority approved.

No differences were found in the appropriateness of use in the bathroom, with the majority finding this acceptable. No exploration was made in the study of the acceptability of more private moments in using the bathroom for mobile use. The more public spaces appeared not to be off limits. Supermarket use showed no overall differences, though a significant sub-effect was found for Chinese students who judged it less acceptable than their Western counterparts. All groups were equally likely to condemn phone conversations during a movie.

The findings suggest there was no unidimensionality with respect to the tolerance of mobile phone use across a variety of settings. The law and some social conventions are likely to play out differently. In order to assess this, an exploratory factor analysis on these items was conducted. The analysis used generalized least squares with an oblimin rotation. Table 3 shows the resulting structure matrix. The KMO measure was adequate at 0.62.

	1	2	3	4
It is appropriate to use a hand-held mobile while driving.	.088	-.109	.051	.726
It is appropriate to use a mobile during worship/church.*	-.160	.752	-.085	-.168
It is appropriate to use a mobile during a class.*	-.047	.964	-.043	-.142
It is appropriate to use a hands-free phone while driving.	.016	-.111	.285	.307
It is appropriate to use a mobile in a restaurant.	.104	.071	.251	.091
It is appropriate to use a mobile in a library.*	-.022	.437	-.062	-.004
It is appropriate to use a mobile on public transportation.	.172	-.101	.879	.197
It is appropriate to use a mobile in the bathroom.*	.302	.015	.067	.045
It is appropriate to use a mobile in the supermarket.*	.971	-.286	.251	.000
It is appropriate to use a mobile in a movie theatre (during a movie)	-.068	.062	-.251	.045

Table 3 **Exploratory Factor Analysis of Mobile Phone Speech Situations**

As the previous analysis indicated, there was no single etiquette factor. Factor one focused on public spaces (supermarkets and bathrooms) where use was acceptable. In contrast, Factor 2 focused on public spaces where conversations might be thought inappropriate presumably because they would interfere with the major purpose of other people in that space such as listening to a lecture or a sermon.

A further analysis showed that 13 per cent did not object (that is, give a score below 3) to any of the three usage situations, including eight per cent who thought usage in all such situations was appropriate. Hypothesis 2 was therefore not supported. However, given the fact that three situations loaded on this factor, not just places of worship, the country differences may relate more to the use of public space than the religious aspect. Thus, although Hypothesis 3 was supported, the basis may not have been the more secular nature of Australian and Chinese society.

Factor 3 was concerned with public transport, while Factor 4 related to the use of mobiles while driving. Factors 1 and 3 were weakly correlated ($r = 0.21$) as were factors 3 and 4 ($r = 0.16$).

Overall the results indicated well understood social rules and laws about the appropriateness of mobile phone use. Chinese and Australian students were somewhat more permissive in what was acceptable than their US counterparts. Hypothesis 1 was therefore supported. There were a minority group of individuals in all three societies, but particularly in Australia and

China, who were willing to use their phones oblivious to the opprobrium of the majority. Anecdotal evidence supports this.

Texting

The appropriateness of using text messages was tested in China and Australia, using the same situations as for speaking on mobile phones, except for the use of texting hands free. Table 4 shows the details. Acceptable usage occasions were on public transport, in a restaurant or in a supermarket. Socially shunned places were in a religious setting and while driving.

<i>Mobile use of texting</i>	<i>Australia</i>		<i>China</i>		<i>F</i> COR	<i>t</i> Use	<i>t</i>
	\bar{x}	<i>s.d</i>	\bar{x}	<i>s.d</i>			
It is appropriate to use a hand-held mobile while driving.	2.1	1.4	1.6	1.1	3.46	0.13	1.2
It is appropriate to use a mobile during worship/church.*	2.2	1.3	2.6	1.4	5.19	0.29	-3.8
It is appropriate to use a mobile during a class.*	2.8	1.4	2.6	1.4	0.86	1.04	-6.4
It is appropriate to use a mobile in a restaurant.	3.6	1.3	3.8	1.2	1.29	1.36	-2.2
It is appropriate to use a mobile in a library.*	3.3	1.4	2.9	1.5	0.01	0.60	-8.0
It is appropriate to use a mobile on public transportation.	4.0	1.3	3.9	1.1	0.04	0.11	-3.8
It is appropriate to use a mobile in the bathroom.*	3.5	1.3	3.0	1.3	0.92	0.75	-1.1
It is appropriate to use a mobile in the supermarket.*	4.1	1.2	3.4	1.4	0.94	0.40	0.6
It is appropriate to use a mobile in a movie theatre (during a movie)	2.9	1.5	2.9	1.5	1.16	0.96	-5.3
n =	160		99		259	259	252 [@]

* Actual item wording was “inappropriate”. However, the scores on these items were reversed for comparability. Statistically significant two-way ANOVA main effects are shown in **bold**. [@]Minimum sample size for all items.

Table 4 **Appropriateness of SMS Texting**

For each circumstance, t-tests were used to make a comparison between using mobile phones for speech with using mobile phones for SMS. As Hypothesis 4 predicted, SMS was more approved in a variety of situations – on public transportation, in worship, in class, in a restaurant, in a library and in a movie theatre. There was only one inter-country difference. Those in China were more likely to believe it appropriate to use text messaging while in a place of worship. No differences by frequency of mobile phone use were found.

An exploratory factor analysis of these items is shown in Table 5, again using generalized least squares with a direct oblimin rotation. The KMO at 0.56 was marginal. Three factors were found. The first approved of the use of texting in public spaces such as transport or restaurants – presumably situations where people feel free to communicate with others. The second factor concerned texting in more awkward places like supermarkets, the bathroom and in libraries. Australian students scored more highly on this factor than their Chinese counterparts ($t(196) = 4.16$). The final factor concerned texting in public spaces where quietness on the part of participants might be expected – in a place of worship, in a lecture, a library or in a movie. One item – texting while driving – did not load highly on any factor suggesting it was in another domain of behaviour. There were no significant correlations between the factors.

	1	2	3
It is appropriate to use a hand-held mobile while driving.	-0.233	-0.012	0.077
It is appropriate to use a mobile during worship/church.*	-0.186	0.118	0.540
It is appropriate to use a mobile during a class.*	0.048	0.110	0.742
It is appropriate to use a mobile in a restaurant.	0.392	0.173	0.063
It is appropriate to use a mobile in a library.*	-0.001	0.390	0.479
It is appropriate to use a mobile on public transportation.	0.980	-0.051	0.086
It is appropriate to use a mobile in the bathroom.*	0.031	0.633	0.216
It is appropriate to use a mobile in the supermarket.*	0.178	0.797	-0.164
It is appropriate to use a mobile in a movie theatre (during a movie)	0.032	-0.075	0.377

Table 5 **Exploratory Factor Analysis of Mobile Texting Situations**

Table 6 summarises the outcome of the hypotheses.

No	Hypothesis	Outcome
1	Usage of mobile phones in cars more likely to be judged inappropriate in Australia and China, rather than in the US	Supported
2	All three countries would show a similar pattern of mobile use approval in public places	Not supported
3	Usage of mobile phones is less likely to be accepted in places of worship in the US than in Australia or China	Supported, but basis may be wider than religious concerns
4	Texting will be more acceptable than using mobiles in public spaces (Australia and China only)	Partly supported, but no differences in bathrooms, supermarkets or driving.

Table 6 **Outcome of Hypotheses**

Discussion

Social marketing has worked to instill appropriate attitudes to driving and mobile talking/texting in Australia and China. Yet over half the licensed drivers in Australia have used a mobile to talk while driving and a minority used SMS (McEvoy et al. 2006). These practices were far more common among younger drivers. At a time when there are plenty of

asynchronous alternatives to talking on the phone, such as email and texting, the need to talk while driving is puzzling. The evidence suggests legislation helps reduce usage (Townsend 2006) as do simple warnings (Clayton et al. 2006). Yet the practice is so entrenched that in a country like Australia that people will risk accidents, fines and a loss of their driving licence to continue a habit they believe is both morally wrong and probably know is illegal. In the United States, mobile use while driving has been increasing (Anon. 2006) even though the majority regards it as unacceptable. So why is this behaviour so persistent and can social marketing actually be used to prevent it? There is a clear need for research to see what combination of legislation, penalties and social persuasion would work best to reduce this dangerous practice.

The study has also helped redefine our notions of what is acceptable in shared public spaces. Of most interest were public spaces like a place of worship, the classroom and the library. Here the major issue appeared to be the interference caused to the major activity occurring in that space. For example, libraries are a space for quiet study and in lectures a conversation would disrupt those nearby trying to listen. Similarly a place of worship was also a place where quiet contemplation would be disrupted. These social norms rules varied very little by the extent of usage.

The study also showed that there was a minority of people who were prepared to use their phones in circumstances most people would find undesirable, such as in a place of worship, in a lecture or in a library. Social sanctions appear not to have worked with this group, accounting for the reports noted earlier and consumers' anecdotal experience of surprising and insensitive usage. Since it is this exceptional behaviour which is most likely to cause offence, social marketers need to research whether this behaviour results from different notions of public/private space or from a sociopathic tendency to disregard others.

Public transport is a public space considered separately from the others. Clearly it is a noisy environment in which people have to speak loudly to make themselves heard. As the other passengers are a captive audience, it might have been expected that all societies would largely condemn this practice. That was not the case; a majority of our respondents supported it. More work is needed on this social space – as other activities such as playing portable music players or eating are all acceptable in these spaces. In some countries like Japan, speaking on a mobile violates social norms and usage is limited (Okabe and Ito 2006), though texting is not. The forthcoming use of mobiles on flights may create yet more issues for a captive nearby audience – and for researchers.

For reasons which are not entirely clear, use of mobiles for speaking and texting in supermarkets and bathrooms appear to gain similar types of approval or disapproval across groups. Apart from cubicles in bathrooms, these are still public spaces shared with a few people nearby but all going about their separate business with minimal interaction. Perhaps this is a space where people are on their own. Thus the disruption to group interaction is less.

As far as texting was concerned, use in movie theatres while the film was in progress, was added to the list. Texting in the darkened movie theatre results in the backlight being evident, causing a minor visual disruption. Given that much entertainment, such as reality television, includes an interactive element, discussing the movie while experiencing it may appeal to many. Further research into the nature of this entertainment experience is clearly warranted.

This study has focused on younger groups of students in three cultures. In general Australian and Chinese consumers were more permissive in terms of mobile use than were their American counterparts in a variety of situations. Whether these differences also apply in a broad range of age groups or educational levels is open to further research.

This study was mostly concerned with making voice calls out loud or using SMS in disruptive situations, the backlight in a darkened place or the click of keys. Where messages are listened to using an earpiece or text is keyed silently, the disruption will be to the social dialogue with others in the user's space, not the disruption. Further research could tease out the importance of these social factors.

Social rules about using mobile phones are likely to restrict marketing opportunities. As an inbound marketing medium, the facility shown by younger groups in sending text messages means more and more use is likely to be made of this medium, given fewer social restrictions on use. Voice calls inbound may be less likely, since mobility is likely to place people in public spaces or in a car. From an outbound marketing perspective, the fact that phones are tuned to local cells means that the consumer's location is identifiable, allowing messages to be tailored to that location, assuming consumers give their permission for such messages to be sent. Similarly tertiary institutions are starting to choose SMS as an opt-in method for delivering individual study results or as a broadcast medium in emergencies and for general announcements. However, as experience with email spam has shown, there is a natural limit to the extent to which unsolicited messages will be welcomed. In many situations, it will also be unacceptable to take calls.

Other intriguing opportunities for further research are suggested by this study. The first concerns the various personas of the individual – in SMS space and in social space (Kasesniemi and Rautiainen 2002) and private space. Beyond “bathrooms”, there are evidently spaces or occasions where even texting is inappropriate. The growth of camera and video phones adds to the complexity of such issues. The second concerns a possible convergence of SMS with other asynchronous communication media, especially email. Should combined mobile phones with PDA and Internet functions really become mainstream, then email may replace the simple SMS systems. Given that complex emails now involve much more elaborate processing, their use in a public space would be more intrusive than a quick keying of a text message or a quick scan of SMS messages would bring. This suggests that new sets of social rules will develop and marketers will need to be mindful of them.

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