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Why drivers use cell phones and support legislation to restrict this practice

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ABSTRACT

The use of cell phones while driving is ubiquitous, particularly in countries where the practice is legal. However, surveys indicate that most drivers favor legislation to limit the use of mobile devices during the operation of a vehicle. A study was conducted to understand this inconsistency between what drivers do and what they advocate for others. Participants completed a survey about their driving attitudes, abilities, and behaviors. Following previous research, drivers reported using cell phones for benefits such as getting work done. The hypocrisy of using cell phones while advocating restrictions appears to stem from differences in the perceived safety risks of self vs. others' use of cell phones. Many if not most drivers believe they can drive safely while using mobile devices. However, they lack confidence in others' ability to drive safely while distracted and believe that others' use of cell phones is dangerous. The threat to public safety of others' usage of mobile devices was one of the strongest independent predictors of support for legislation to restrict cell phone use.

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1. Introduction

Cell phone use while driving is ubiquitous. The National Highway Traffic Safety Administration (2011) estimates that at any point during the day, 9% of drivers are using cell phones in the United States. Even in countries such as Australia and the United Kingdom where there are strong regulations in place, 1–2% of drivers have been observed using hand-held mobile phones (Glendon and Sutton, 2005; McEvoy et al., 2005; World Health Organization, 2011). This is a major public safety issue because of the number of crashes that are attributable to distracted driving (e.g., National Safety Council White Paper, 2010) and the substantial body of empirical evidence showing the impairments from talking on a cell phone. Studies of the processes underlying these driving deficits indicate that conversation disrupts scanning and change detection in complex visual scenes (McCarley et al., 2004), delays the reaction time to imperative events (Caird et al., 2008; Horrey and Wickens, 2006; Strayer and Johnston, 2001; Strayer et al., 2003), and may cause a form of inattention blindness whereby observers often fail to notice information that falls directly in their line of gaze (Strayer and Drews, 2007). In fact, epidemiological studies have reported that the crash risk may rise to the level associated with the legal limit of alcohol (Redelmeier and Tibshirani, 1997; McEvoy et al., 2005; for a contrasting view, see Klauer et al., 2014; Dingus et al., 2006).

The ubiquity of cell phone use is surprising because drivers are often cognizant of the risks of this behavior. A AAA Foundation for Traffic Safety (2013) study conducted in the United States revealed that the majority of respondents believe that driving while using a cell phone is a very serious (57.7%) or serious (30.9%) threat to their personal safety. Moreover, an average of 70% of respondents strongly or somewhat strongly support laws restricting hand-held cell phone use by drivers and approximately 45% strongly or somewhat strongly support a total ban on cell phone use while driving. Although the exact proportion of drivers in the United States who use mobile devices while supporting laws restricting their use is unclear, these data seem to suggest that many people engage in the very behavior they would outlaw or restrict.

Research on hypocrisy has shown that it is common for people to "say one thing and do another", and advocate pro-social behaviors that they do not themselves perform regularly (e.g., Barden et al., 2005; Batson et al., 1997; Valdesolo and DeSteno, 2008). The

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purpose of our study was to explain the hypocrisy of drivers using cell phones while supporting legislation to restrict the practice by others. To explain the inconsistency, the study sought a broad understanding of the various contributors to cell phone use and support for legislation in a country where strong and widespread restrictions on cellular communication while driving have not been imposed.

1.1. The perceived benefits and risks of cell phone usage while driving

Research indicates that drivers use cell phones to stay in touch with others (e.g., Walsh and White, 2006), receive information (e.g., White et al., 2010), and perform work duties outside of the office (e.g., Eost and Flyte, 1998). Drivers commonly feel social pressure to respond to calls (Waddell and Weiner, 2014). However, they refrain from using their phones because of the perceived dangers as well as the potential fines from being caught in regions where usage is restricted (e.g., Gauld et al., 2014). Another important predictor of cell phone usage is perceived norms (Atchley et al., 2012; Nemme and White, 2010; Walsh et al., 2008) which are strongly associated with the expected costs of using a cell phone while driving.

In general, drivers appear to use cell phones because the perceived benefits outweigh the costs (Walsh and White, 2006). Although drivers seem to be aware of the dangers of cellular communication during the operation of a vehicle, they tend to believe that the likelihood of an accident is lower for self than for others (White et al., 2004). This is consistent with studies of self-assessment which have found that people often exaggerate the favorableness of their abilities, skills, and traits (e.g., Alicke and Govorun, 2005; Dunning et al., 2004; for limitations, see Moore, 2007) and research on public safety showing that motorists commonly overestimate their driving skills and abilities (Horrey et al., 2015; Horswill et al., 2004; Sundström, 2008). We believe that in the United States, a large proportion of drivers are overconfident about their ability to drive safely while distracted which may increase their willingness to use mobile devices behind the wheel.

Few studies have examined the factors contributing to support for regulation of the use of cellular devices while driving. White et al. (2007) suggest that legislative support may be heavily influenced by the perceived dangers of others' usage of mobile phones. In a reanalysis of their earlier work (White et al., 2004), they found that amongst drivers who reported using a mobile phone, "regulatory preferences were more influenced by perceived risks to others. . . than the self. . . .this finding suggests their calls for regulation are primarily based on concerns about other people's behavior rather than their own" (White et al., 2007, p. 743).

1.2. A study of driving attitudes, behaviors, and abilities

A survey was conducted to estimate the proportion of drivers who use cell phones while supporting legislation to restrict the practice, and to understand this inconsistency between what drivers do and what they advocate. As reflected by our review, there have been numerous well conducted studies of the perceived benefits and risks of cellular communication while driving. However, to our knowledge, there have been no comprehensive examinations of the motivations underlying the advocacy of regulation. Moreover, no studies have examined the driving attitudes, beliefs, and abilities contributing to legislative support and cell phone usage together in a single study to account for drivers' hypocrisy.

Participants in our study reported the risks and benefits of their cell phone use and others' cell phone use while driving. They also assessed their abilities and other drivers' abilities to drive safely while distracted. Finally, they completed the Operation Span task which has been used previously to measure multitasking ability (Sanbonmatsu et al., 2013). Following previous research (e.g., Eost and Flyte, 1998; White et al., 2010), participants were expected to report specific benefits from talking on a cell phone such as getting work done and connecting with friends that predict self-reported cell phone usage while driving. In contrast, we anticipated they would report benefitting little from other drivers' usage of cell phones. We also expected that drivers would generally be aware of the dangers of talking on a cell phone and that their risk assessments would be negatively correlated with self-reported cellular communication behind the wheel. However, it was predicted that participants would see others' usage of cell phones as a much greater threat to public safety than their own (White et al., 2004). Severe concerns about the safeness of other's use of mobile devices were expected to be a major contributor to support for legislation (White et al., 2007) and the inconsistency between what drivers do and the policies they advocate.

Finally, the study examined the important relations between perceived and actual multi-tasking ability, and self-reported cell phone use and support for regulation. A simple but elegant measure of working memory is the Operation Span (OSPAN) task developed by Engle (2002). In the OSPAN task, people simultaneously attempt to perform two independent tasks that compete for limited capacity attention (Watson and Strayer, 2010). Thus, the OSPAN task has been used in prior research to measure multitasking ability (Sanbonmatsu et al., 2013). Following this previous work and prior demonstrations of the tenuous relation between self-assessments and performance (for a review, see Dunning et al., 2004), we expected little correspondence between participants' subjective beliefs about their ability to drive safely while distracted and their ability to multitask as measured by the OSPAN task. We further anticipated that perceived ability rather than actual ability would be more predictive of the perceived risks and self-reported use of cell phones, and support for legislative restrictions.

2. Methodology

2.1. Participants

The study was conducted in the United States in the state of Utah where texting on a cell phone while driving is illegal but talking on a cell phone is permitted. Two hundred and forty-nine University of Utah undergraduates (141 female and 108 male) participated in the study for extra course credit. The undergraduates ranged in age from 18 to 44, with an average age of 22. Inclusion in the study was limited to students who owned a cell phone and reported driving at least occasionally (i.e., who did not respond "0" when asked "how many minutes per day do you spend driving?"), and who met the performance criteria on the OSPAN task.

2.2. Procedure

The students participated individually in a laboratory. They began the "study of driving and driving attitudes" by answering questions on a computer about their cell phone use while driving and their ability to drive safely while distracted. This was followed by questions about their support for legislation restricting cell phone use and their general attitudes toward cell phone use while driving. Participants were then asked about the benefits and costs of cell phone use, and the costs of driving while intoxicated. The specific measures are described in detail below. The questions were presented in the same order for all participants. The OSPAN task was administered last in order to reduce any possible effects of fatigue on questionnaire responding.

2.3. Measures

2.3.1. Cell phone use while driving

Participants indicated "how often do you use your cell phone while driving?" on a 5 point scale anchored by *never/rarely when I drive* and *every time I drive*. They also reported the percentage of the time they are on the phone while driving, if they use their cell phone while driving.

2.3.2. Perceived ability to drive safely while talking on a cell phone

Participants answered the questions "To what extent are you capable of driving safely while engaging in another task such as talking on the cell phone?" and "To what extent are adults in the general population capable of driving safely while engaging in another task such as talking on the cell phone" on 7 point scales anchored by "1" = *not at all capable* and "7" = *highly capable*. They also ranked their ability to drive safely while talking on a cell phone relative to other college students on a percentage scale on which 0 indicated *I'm at the very bottom*, 50 indicated *I'm exactly average*, and 100 indicated *I'm at the very top*. They also ranked their abilities relative to other adults in the general population on the same percentage scale.

2.3.3. Support for legislation restricting cell phone use while driving

Participants indicated their agreement with the statements "Talking on a cell phone is a matter of public safety; laws should be passed to restrict the usage of cell phones and driving" and "I oppose laws that limit the use of cell phones while driving" on a scale containing four possible responses: *strongly disagree*, *disagree*, *agree*, and *strongly agree*. This four-point scale was presented on all of the measures of agreement or disagreement.

2.3.4. General attitudes toward talking on a cell phone while driving

Participants indicated their attitudes toward their usage of cell phones while driving and their attitudes toward others' usage of cell phones while driving. Specifically, they reported their agreement with the statements "I like to talk on a cell phone when I am driving", "I feel positively about talking on a cell phone while I drive", "I feel positively about other people talking on a cell phone while they drive" and "I like other people to talk on a cell phone when they are driving".

2.3.5. Perceived benefits of talking on a cell phone while driving

Participants indicated their agreement with the statement "I benefit from talking on a cell phone while I drive". They also conveyed their perceptions of the specific benefits of their cell phone usage by indicating their agreement with the statements "Talking on a cell phone when I am driving makes driving less boring for me", "Talking on a cell phone when I am driving enables me to connect with friends and family", and "Talking on a cell phone when I am driving enables me to get work or other things done". Finally, they conveyed the perceived benefits of others' usage of cell phones by indicating their agreement with the statement "I benefit from other people talking on a cell phone while they drive".

2.3.6. Perceived risks of talking on a cell phone while driving

Participants reported the perceived costs of their talking on a cell phone while driving by indicating their agreement with the statements "Talking on a cell phone when I am driving could diminish my standing in my community and my standing among my peers", "Talking on a cell phone when I am driving could have severe negative legal and financial consequences for me", "Talking on a cell phone when I am driving threatens the safety and well-being of other people", and "Talking on a cell phone when I am driving threatens my personal safety and well-being". They also conveyed the perceived risks of others talking on a cell phone by indicating their agreement with the statements "People talking on a cell phone while driving threatens the safety and well-being of others" and "People talking on a cell phone while driving threatens my personal safety and well-being". Finally, participants conveyed their agreement with the statement "Talking on a cell phone while driving is a socially accepted practice in our country".

2.3.7. Perceived risks of drinking and driving

Research has shown that the effects of cellular communication on driving safety are comparable to the impairments induced by drinking (Strayer et al., 2006). In our study, measures of the perceived costs of drinking and driving were administered in order to provide a comparative baseline for assessing participants' estimations of the risks of talking on a cell phone while driving. Participants indicated their agreement with the statements "Driving when I am intoxicated could have severe negative legal and financial consequences for me", "Driving when I am intoxicated could diminish my standing in my community and my standing amongst my peers", "Driving when I am intoxicated threatens the safety and well-being of other people", and "Driving when I am intoxicated threatens my personal safety and well-being". Additionally, they conveyed their agreement with the statement "Drinking and driving is a socially accepted practice in our country".

2.3.8. Operation span task (OSPAN)

An automated version of the OSPAN task was administered (Unsworth et al., 2005). Participants were asked to remember a series of 3–7 letters that were interspersed with 12 math problems in which an equation and possible solution were presented for verification. They indicated whether the solutions to the math problems were true or false and recalled the letters in the order that they were presented. Trials were pseudorandomized such that participants were unable to predict the set size of upcoming equation–letter pairs. Participants were given points equal to the set size when all of the letters in that set were recalled correctly in serial order (i.e., an absolute span score). Math accuracy was also tracked, and feedback was provided to participants during the task to encourage compliance with the instructions.

3. Results

In the measures of agreement and disagreement, a response of *strongly disagree* was coded as a 1, *disagree* was coded as a 2, *agree* was coded as a 3, and *strongly agree* was coded as a 4. Hence, a mean below the midpoint of 2.5 reflected a tendency for participants in the sample to disagree with a statement while a mean above the midpoint reflected a tendency for participants to agree with a statement. The mean levels of agreement with the various statements about cell phone use and driving across the sample are presented in Tables 2 and 3.

3.1. Frequency of participants using cell phones and supporting legislation

Participants were asked "How often do you use your cell phone while driving?" Only 22.5% of participants responded *never or rarely*. The majority (51%) responded *occasionally* while the remaining participants reported using a cell phone *often* (17%), *almost always* (5%), or *always* (4%). The mean reported frequency of cell phone use while driving on the 5 point scale was 2.17 with a standard deviation of 0.97. Participants also estimated the percentage of time they were on the phone (if they were inclined to use their cell phone while driving). They reported using their phone 15% percent

Table 1
Number of participants using a cell phone while driving and supporting legislation restricting cell phone use while driving.

		Use cell phone while driving?		Total
		No	Yes	
Support legislation restricting cell phone use?	No	12	83	95
	Yes	44	110	154
Total		56	193	249

of the time with a standard deviation of 17.9%. The reported frequency of cell phone use was strongly correlated with the reported percentage of the time on the phone while driving, $r(247) = .61$, $p < 0.001$.[1] Because the estimated percentage of time on the cell phone while driving was limited to participants who used their cell phone while driving, the first and more inclusive question (the reported frequency) was used in the primary analyses.

Participants were categorized dichotomously as either using a cell phone while driving (*occasionally*, *often*, *almost always* or *always*) or as *never or rarely* using a cell phone while driving. A chi-square analysis indicated that the proportion of participants using a cell phone while driving at least occasionally was significantly greater than the proportion who *never or rarely* did, X^2 (1, $N = 249$) = 75.39, $p < 0.001$ (see Table 1). The proportion of participants using a cell phone vs. not using a cell phone while driving was not found to differ as a function of gender, $X^2(1, N = 249) = 0.01$, $p = 0.93$.

On the measures of attitudes toward the regulation of mobile device usage, participants tended to agree with the statement "Talking on a cell phone is a matter of public safety; laws should be passed to restrict the usage of cell phones and driving" ($M = 2.79$), and disagree with the statement "I oppose laws that limit the use of cell phones while driving" ($M = 2.16$). Agreement with the two statements was highly negatively correlated, $r(247) = -0.73$, $p < 0.001$. Consequently, the latter was reverse coded and the two items were averaged to create a general index of support for legislation to restrict cell phone use while driving. Participants were then categorized dichotomously as either supporting ($M > 2.5$) or not supporting legislation ($M <$ or $= 2.5$) to restrict cell phone usage. A chi square analysis indicated that there was a higher proportion of participants supporting legislation than not supporting legislation, X^2 (1, $N = 249$) = 13.98, $p < 0.001$. The support for legislation to impose restrictions did not vary as a function of gender, X^2 (1, $N = 249$) = 1.59.

From Table 1 it is apparent that the largest category of participants reported using cell phones behind the wheel while simultaneously supporting restrictive legislation. Thus, the largest proportion were "hypocrites" of sorts who advocated driving laws and policies that were inconsistent with their personal driving practices. Note that we dichotomized these measures in order to present the basic proportion of drivers who use cell phones while supporting legislation to restrict this practice. However, raw scores were used in the correlational analyses examining the predictors of these variables.

The frequency of cell phone use while driving was negatively correlated with support for legislation to restrict the usage of mobile devices, $r(247) = -0.33$, $p < 0.001$. Thus, users of cell phones while driving tended to be less supportive of legislation than non-users.

[1] Following Cohen (1988, see also Rosenthal, 1996), we interpret a correlation of 0.1 as a small/weak effect, a correlation of 0.3 as a medium/modest effect, a correlation of 0.5 as a large/strong effect, and a correlation 0.7 or larger as a very large effect.

3.2. General attitudes toward cell phone use while driving

Participants tended to disagree with the statements "I like to talk on a cell phone when I am driving" ($M = 2.27$) and "I feel positively about talking on a cell phone while I drive" ($M = 2.27$). Their responding to the two statements was highly correlated, $r(247) = 0.69$, $p < 0.001$. Consequently, the responses were averaged to create a composite measure of attitudes toward self-usage of cell phones while driving. Participants' generally disagreed strongly with the statements "I like other people to talk on a cell phone when they are driving" ($M = 1.67$) and "I feel positively about other people talking on a cell phone while they drive" ($M = 1.76$) indicating that their attitudes toward others' usage of cell phones were decidedly negative. Because responses to the two statements were highly correlated, $r(247) = 0.70$, $p < 0.001$, they were averaged to create a composite measure of attitudes toward others' usage of cell phones while driving.

A *t*-test comparison between general attitudes toward self-usage of cell phones versus others' usage of cell phones indicated that participants felt much more negatively about others' talking than their own talking on cell phones while driving, $t(248) = 14.92$, $p < 0.001$. Nevertheless, attitudes toward personal usage of cell phones and attitudes towards others' usage were highly positively correlated, $r(247) = 0.56$, $p < 0.001$. Thus, when participants felt positively about their own use of cell phones behind the wheel, they tended to feel positively about others' use of cell phones.

3.3. Perceived and actual ability to drive safely while using a cell phone

Participants ranked their ability to drive safely while distracted relative to adults and relative to other college students on a percentile scale on which 0% indicated *I'm at the bottom* and 100% indicated *I'm at the very top*. Their percentile ranking of their distracted driving ability relative to that of other college students ($M = 63.84$) was highly correlated with their percentile ranking relative to adults in the general population ($M = 62.38$), $r(247) = 0.93$, $p < 0.001$. Consequently, the two percentage estimates were averaged to create a general self-ranking of distracted driving ability. The mean percentage estimate across all participants was 63.0 ($SD = 20.08$). A score of 50 on the measure was *exactly average*. A comparison of the mean percentage estimate with 50 indicated that participants' generally estimated their ability to drive safely while distracted to be significantly higher than average, $t(248) = 10.3$, $p < 0.001$. Of the 249 total participants, 35 estimated their ability was below average, 54 estimated they were exactly average, and 160 estimated they were above average. A binomial test indicated that the proportion of participants judging their distracted driving ability to be better than average was higher than would be expected by chance, $p < .001$. Thus, participants in our study substantially overestimated their ability to drive safely while distracted.

Participants also judged "To what extent are you capable of driving safely while engaging in another task such as talking on the cell phone?" and "To what extent are adults in the general population capable of driving safely while engaging in another task such as talking on the cell phone" on a 7 point scale anchored by *not at all capable* and *highly capable*. Comparisons with the midpoint on the scale (4) suggests that participants tended to believe they were capable of driving safely while using a cell phone, $M = 4.88$, $t(248) = 10.46$, $p < 0.001$, but that others were not capable of driving safely while using a cell phone, $M = 3.70$, $t(248) = 3.88$, $p < 0.001$. A *t*-test indicated that participants perceived they were more capable of driving safely while engaging in another task than others, $t(248) = 15.19$, $p < 0.001$. Nevertheless, participants' judgments of their own ability to drive safely while distracted and their judg-

Table 2
Perceived benefits of talking on a cell phone while driving.

	Mean	SD	Comparison with midpoint (t)
I benefit from talking on a cell phone while I drive	2.22	0.76	5.86***
I benefit from other people talking on a cell phone while they drive	1.74	0.70	17.06***
Talking on a cell phone when I am driving makes driving less boring for me	2.32	0.81	3.57***
Talking on a cell phone when I am driving enables me to connect with friends and family	2.70	0.74	4.32***
Talking on a cell phone when I am driving enables me to get work or other things done	2.60	0.83	2.11*

Notes: N = 249. Mean responses on a 4 item scale anchored by 1 = *strongly disagree* and 4 = *strongly agree.*
* Significant at $p < .05$ level.
*** Significant at $p < .001$ level.

Table 3
Perceived risks of talking on a cell phone while driving versus driving while intoxicated.

	Mean	SD	Comparison with midpoint (t)
Risks of talking on a phone while driving			
Talking on a cell phone when I am driving could diminish my standing in my community and my standing among my peers	2.12	0.70	8.64***
Talking on a cell phone when I am driving could have severe negative legal and financial consequences for me	2.96	0.76	9.42***
Talking on a cell phone when I am driving threatens the safety and well-being of others	3.13	0.70	14.19***
Talking on a cell phone when I am driving threatens my personal safety and well-being	3.06	0.73	12.07***
People talking on a cell phone while driving threatens the safety and well-being of others	3.23	0.60	19.31***
People talking on a cell phone while driving threatens my personal safety and well-being	3.19	0.62	17.32***
Talking on a cell phone while driving is a socially accepted practice in our country	2.90	0.69	9.20***
Risks of drinking and driving			
Driving when I am intoxicated could have severe negative legal and financial consequences for me	3.85	0.44	48.73***
Driving when I am intoxicated could diminish my standing in my community and my standing amongst my peers	3.62	0.64	27.42***
Driving when I am intoxicated threatens the safety and well-being of other people	3.85	0.40	53.43***
Driving when I am intoxicated threatens my personal safety and well-being	3.86	0.40	54.74***
Drinking and driving is a socially accepted practice in our country	1.66	0.74	17.87***

Notes: N = 249. Mean responses on a 4 item scale anchored by 1 = *strongly disagree* and 4 = *strongly agree.*
*** Significant at $p < 0.001$ level.

ments of others were highly correlated, $r(248) = 0.54$, $p < 0.001$. When participants perceived themselves to be capable of driving safely while talking on a cell phone, they tended to also see others as being similarly capable.

Participants' judgments of their ability to drive safely on the 7 point scale were highly correlated with their mean percentile ranking of their distracted driving ability, $r(247) = 0.66$, $p < 0.001$. Thus, there was a high degree of convergence between the two different self-assessments of the ability to drive safely while distracted. Because the 7 point scale measure of the ability to drive distracted was a companion measure to the perceived capacity of others to drive distracted (which was expected to be an important predictor of support for legislation), it was featured in the subsequent analyses.

The OSPAN task served as our measure of multitasking ability. Following Unsworth et al. (2005), 61 participants who failed to correctly verify at least 80 percent of the math problems were excluded from the analysis. The number of memory words recalled in the correct order were summed to determine the absolute OSPAN task score. This is the measure most commonly used in the literature (Unsworth et al., 2005) and the measure that was used in the primary analyses. The absolute score was highly correlated with the total score, $r(247) = 0.88$, $p < 0.001$, which sums all of the letters correctly recalled in serial order. The mean absolute score was 44 with a standard deviation of 16, and the mean total score was 59 with a standard deviation of 13. Participants' actual multitasking ability as measured by the OSPAN was not significantly correlated with their perceptions of their ability to drive safely while distracted, $r(248) = -0.08$, or their perceptions of others' ability to drive safely while distracted. $r(247) = -0.08$. Note that if anything, the correlations were slightly negative.

3.4. Perceived benefits and costs of cell phone use while driving

In assessing the benefits and costs of cell phone use, participants tended to disagree slightly with the statement "I benefit from talking on a cell phone while I drive" and disagree strongly with the statement "I benefit from other people talking on a cell phone while they drive" (see Table 2). A comparison of their agreement with the two statements revealed that participants perceived that they benefitted more from their talking on a cell phone than from others talking on a cell phone, $t(248) = 9.37$, $p < 0.001$. Participants tended to disagree with the statement "Talking on a cell phone when I am driving makes driving less boring for me". However, they were inclined to agree with the statements "Talking on a cell phone when I am driving enables me to connect with friends and family" and "Talking on a cell phone when I am driving enables me to get work or other things done".

Participants generally recognized that using a cell phone while operating a motor vehicle is risky (see Table 3). They tended to agree with the statements "Talking on a cell phone when I am driving could have severe negative legal and financial consequences for me", "Talking on a cell phone when I am driving threatens the safety and well-being of other people", and "Talking on a cell phone when I am driving threatens my personal safety and well-being". However, they tended to disagree with the statement that "Talking on a cell phone when I am driving could diminish my standing in my community and my standing among my peers".

Following White et al. (2004), participants perceived even greater risk in others' usage of cell phones while driving. For example, they conveyed significant agreement with the statement "People talking on a cell phone while driving threatens my personal safety and well-being safety", which exceeded their agreement with the statement "Talking on a cell phone when I am driv-

ing threatens my personal safety and well-being", $t(248) = 3.68$, $p < 0.001$. Thus, participants generally perceived that others' usage of cell phones while driving was a threat to the safety of the public and themselves, and that this was a much greater safety threat than their own personal usage of cell phones.

Although participants perceived others' usage of cellular communications while driving to be a substantially greater threat to safety than their own usage, the two beliefs were highly correlated. For example, participants who believed that others' usage of cell phones was a threat to public safety also believed that their personal usage of cell phones was a threat to the safety of others, $r(247) = 0.64$, $p < 0.0001$.

Participants were well aware of the risks of drinking and driving. They agreed strongly with all of the statements about the risks of driving while intoxicated. Comparisons with the perceived risks of using a cell phone while driving revealed that drinking and driving was believed to be a greater threat to the safety and well-being of others, $t(248) = 16.42$, $p < 0.001$, a greater threat to participants' personal safety and well-being, $t(248) = 17.69$, $p < 0.001$, more likely to entail negative legal and financial consequences, $t(248) = 17.52$, $p < 0.001$, and more likely to diminish standing in the community, $t(248) = 26.51$, $p < 0.001$. Not surprisingly, driving while intoxicated was also perceived to be much less socially acceptable than using a cell phone and driving, $t(248) = 21.79$, $p < 0.001$.

3.5. Predictors of self-reported use of cell phones while driving

A series of correlational analyses examined the important predictors of cell phone use and attitudes toward cell phone use while driving. These correlations were accompanied by a set of companion analyses comparing participants who reported using cell phones vs. participants who reported never or rarely using cell phones while driving. These analyses and means are presented in Table 4.

Not surprisingly, participants' attitudes toward their usage of cell phones while driving and their self-reported usage of cell phones while driving were highly correlated, $r(247) = 0.61$, $p < 0.001$. Because these two variables were strongly statistically and theoretically related, they were similarly predicted by the exact same set of variables. The predictors of cell phone use that are described below also predicted general attitudes toward cell phone use and driving.

Talking on a cell phone while driving was strongly predicted by the perceived benefits of cellular communication. Participants who talk on a cell phone while driving were much more likely than those who do not talk on a cell phone to report benefiting from both their personal use of cell phones and others' use of cell phones. Moreover, they were much more apt to believe that talking on a cell phone makes driving less boring, connects them with friends and family, and enables them to get more done.

Cell phone use while driving was negatively correlated with the perceptions of the costs of cell phone usage. Participants who use cell phones were less likely than non-users to see their personal use of a cell phone as a threat to their safety and the safety of others. They were also less likely to see others' use of a cell phone as a threat to their safety and others' safety. Moreover, they were less apt to believe that their use of phones while driving could diminish their standing and more likely to believe that talking on a cell phone while driving is a socially acceptable practice, though the latter dichotomous comparison between users and non-users of cell phones was not significant.

The perceived benefits appear to be a stronger determinant of cell phone use while driving than the perceived risks. For example, the ability to connect with friends and family was correlated more strongly (when the differences in the signs were corrected) with talking on a cell phone than the threat to drivers' personal safety, $r(249) = 0.36$ vs. $r(249) = -0.20$, $z = 1.93$, $p = 0.054$. Similarly, getting work done was correlated more strongly with talking on a cell phone than the threat to personal safety, $r(249) = 0.50$ vs. $r(249) = -0.20$, $z = 2.84$, $p < 0.001$.

Cell phone use while driving was positively correlated with the *perceived* ability to drive safely when distracted. Participants who talk on cell phones behind the wheel were much more likely to believe they could drive safely while distracted than participants who do not use cell phones. They were also more likely to believe that others could drive safely while distracted. Cell phone use while driving was negatively correlated with the actual ability to multitask as measured by the OSPAN task.[2] Cell phone use increased as the actual ability to multitask decreased, though the dichotomous comparison between frequent and non-frequent cell phone users was not significant. Thus, the usage of cell phones appears to be motivated more by people's self-conceptions of their ability to drive safely when distracted than by their actual multitasking ability.

3.6. Predictors of support for legislation to restrict the use of cell phones while driving

Table 5 presents the predictors of participants' attitudes toward others' use of cell phones and their support for legislation restricting the use of cell phone use while driving. A companion analysis compared participants who support legislation and who do not support legislation to restrict cell phone usage.

Attitudes toward others' usage of cell phones while driving were negatively correlated with support for legislation to restrict the use of cell phones while driving, $r(247) = -0.45$, $p < 0.001$. As the favorableness of participants' evaluations of others using a cell phone decreased, their support for legislation increased. Participants' attitudes toward their own usage of cell phones were also highly negatively correlated with their support for legislation to restrict the use of cell phones while driving, $r(247) = -0.46$, $p < 0.001$. Hence, when participants felt negatively about talking on a cell phone while driving, they were more supportive of legislation to restrict cell phone usage.

The support for legislation restricting cell phones use was strongly related to the perceived risks of others' usage of cell phone behind the wheel. Supporters of legislation were much more likely than non-supporters to see others' use of cell phones as a threat to their safety and the safety of others, and their own use of a cell phone as a threat to their safety and others' safety. In addition, they were more apt to believe that their use of phones while driving could diminish their standing, and have negative legal and financial consequences.

The perceived ability to drive safely while distracted was strongly predictive of support for legislation to restrict cell phone usage. Participants who supported legislation were much less likely than non-supporters to perceive that they and others were capable of driving safely while distracted. The support for laws to restrict the use of cell phones was not significantly correlated with the actual ability to multitask as measured by the OSPAN.

Finally, support for legislation was strongly predicted by the perceived benefits of cell phone use while driving. Supporters of legislation were much more likely than non-supporters to believe that the benefits of others' usage of cell phones while driving are low. They were also less likely to believe that they generally benefited from their personal usage of cell phones, and that talking on a cell phone has specific benefits such as facilitating work.

[2] The negative correlation between self-reported cell phone use and OSPAN performance was reported in Sanbonmatsu et al. (2013). This is the only finding that was previously published.

Table 4
Correlates of attitudes toward and frequency of cell phone use while driving, and comparison of mean beliefs of participants who use or do not use cell phones while driving.

	Attitudes toward self-usage of cell phone while driving (correlations)	Frequency of cell phone usage while driving (correlations)	Beliefs of participants who use cell phones while driving (means)	Beliefs of participants who do not use cell phones while driving (means)	Comparison users vs. non-users (t)
Ability to drive safely while using a phone					
Perceived ability to drive safely while distracted	0.44**	0.43**	5.15	3.95	6.45***
Perceived ability of others to drive safely while distracted	0.22**	0.16*	3.86	3.14	3.97***
Multitasking ability (OSPAN performance)	−0.20**	−0.16*	43.38	44.41	0.41
Benefits of talking on phone while driving					
I benefit from talking on a cell phone while I drive	0.41**	0.37**	2.36	1.73	5.74***
I benefit from other people talking on a cell phone while they drive	0.33**	0.25**	1.83	1.43	3.93***
Talking on a cell phone when I am driving makes driving less boring for me	0.47**	0.29**	2.44	1.89	4.65***
Talking on a cell phone when I am driving enables me to connect with friends and family	0.50**	0.36**	2.84	2.23	5.74***
Talking on a cell phone when I am driving enables me to get work or other things done	0.51**	0.50**	2.80	1.96	7.32***
Costs of talking on phone while driving					
Talking on a cell phone when I am driving could diminish my standing in my community and my standing among my peers	−0.16*	−0.20**	2.07	2.29	2.07*
Talking on a cell phone when I am driving could have severe negative legal and financial consequences for me	−0.12	−0.06	2.90	3.00	0.49
Talking on a cell phone when I am driving threatens the safety and well-being of others	−0.34**	−0.25**	3.03	3.49	4.38***
Talking on a cell phone when I am driving threatens my personal safety and well-being	−0.36**	−0.20**	2.96	3.39	4.05***
People talking on a cell phone while driving threatens the safety and well-being of others	−0.29**	−0.16*	3.19	3.38	2.10*
People talking on a cell phone while driving threatens my personal safety and well-being	−0.29**	−0.17**	3.15	3.38	2.47*
Talking on a cell phone while driving is a socially accepted practice in our country	0.21**	0.17**	2.91	2.88	0.31

Notes: N = 249.

* Significant at $p < 0.05$ level.

** Significant at $p < 0.01$ level.

*** Significant at $p < 0.001$ level.

Table 5
Correlates of attitudes toward others' use of cell phones and support for legislation restricting cell phone use, and comparison of mean beliefs of participants who support or do not support legislation restricting the use of cell phones while driving.

	Attitudes toward others' phone usage while driving (correlations)	Support for laws restricting phone usage while driving (correlations)	Beliefs of participants who support legislation restricting cell phone use (means)	Beliefs of participants who do not support legislation restricting cell phone use (means)	Comparison supporters vs. non-supporters (t)
Ability to drive safely while using a phone					
Perceived ability to drive safely while distracted	0.26**	−0.38**	4.51	5.48	6.04***
Perceived ability of others to drive safely while distracted	0.34**	−0.28**	3.45	4.11	4.25***
Multitasking ability (OSPAN performance)	−0.13*	0.12	44.42	42.31	0.98
Benefits of talking on phone while driving					
I benefit from talking on a cell phone while I drive	0.30**	−0.42**	2.01	2.55	5.71***
I benefit from other people talking on a cell phone while they drive	0.48**	−0.45**	1.55	2.05	5.84***
Talking on a cell phone when I am driving makes driving less boring for me	0.35**	−0.28**	2.16	2.57	3.97***
Talking on a cell phone when I am driving enables me to connect with friends and family	0.35**	−0.36**	2.54	2.97	4.62***
Talking on a cell phone when I am driving enables me to get work or other things done	0.40**	−0.28**	2.50	2.79	2.72**
Costs of talking on phone while driving					
Talking on a cell phone when I am driving could diminish my standing in my community and my standing among my peers	−0.07	0.20**	2.21	1.97	2.65**
Talking on a cell phone when I am driving could have severe negative legal and financial consequences for me	−0.09	0.27**	3.10	2.72	4.01***
Talking on a cell phone when I am driving threatens the safety and well-being of others	−0.33**	0.47**	3.36	2.76	8.04***
Talking on a cell phone when I am driving threatens my personal safety and well-being	−0.28**	0.47**	3.30	2.66	7.63***
People talking on a cell phone while driving threatens the safety and well-being of others	−0.33**	0.54**	3.44	2.88	7.26***
People talking on a cell phone while driving threatens my personal safety and well-being	−0.53**	0.51**	3.41	2.85	7.39***
Talking on a cell phone while driving is a socially accepted practice in our country	0.09	−0.13*	2.85	2.98	1.44

Notes: N = 249.

* Significant at $p < 0.05$ level.

** Significant at $p < 0.01$ level.

*** Significant at $p < 0.001$ level.

3.7. The relation between the ability to drive safely and the perceived risks of distracted driving

We anticipated that the perceived risks of talking on a cell phone would be dependent on the perceived ability to drive safely while distracted. As expected, self-assessments of the ability to drive safely while distracted were negatively correlated with the beliefs that talking on a cell phone is a threat to the safety and well-being of self, $r(249) = -0.36$, $p < 0.001$, and others, $r(249) = -0.38$, $p < 0.001$. Perceived ability was also significantly negatively correlated with the beliefs that talking on a cell phone could have severe legal and financial consequences, $r(249) = -0.18$, $p = 0.004$, and diminish standing, $r(249) = -0.18$, $p = 0.004$. Perceptions of others' ability to drive safely while distracted were similarly negatively correlated with the beliefs that others talking on a cell phone is a threat to the safety and well-being of self, $r(249) = -0.26$, $p < 0.001$, and others $r(249) = -0.25$, $p < 0.001$. In contrast, the objective ability to multitask as measured by the OSPAN task was not significantly correlated with the belief that talking on a cell phone is a threat to the safety and well-being of self, $r(249) = -0.03$, $p = 0.43$, or others, $r(249) = -0.05$, $p = 0.64$.

3.8. Multiple regression analyses

Multiple linear regression was used to determine the unique contributors to cell phone use while driving. Based upon the univariate analyses reported above, cell phone use while driving was regressed on the perceived ability of both self and others to drive safely while distracted, multitasking ability (OSPAN), the various perceived costs to both self and others of using a cell phone, and the perceived benefits of using a cell phone. General attitudes toward cell phone use while driving were not included in the analysis because attitudes were found to be a broad construct that was closely linked to cell phone use while driving that was predicted by the same set of variables. The standardized beta coefficients for the regression analysis are provided in Table 6. The overall regression model was highly significant, $F(15, 233) = 10.00$, $p < 0.001$, $R = 0.62$, $SE = 0.78$; over 39% of the variance in self-reported cell phone use while driving was accounted for by the predictors. An examination of the beta coefficients indicates that one of the strongest independent predictors of cell phone use while driving was participants' assessments of their ability to drive safely while distracted. As individuals' confidence in their ability to drive safely increased, their willingness to talk on a cell phone increased. Cell phone use while driving was also independently predicted by the perceived benefits of cell phone use. One of the strongest of these predictors was participants' belief that they could get work and other things done by talking on a cell phone while driving.

A similar regression analysis examined the contributors to support for legislation restricting the usage of cell phones while driving. All of the factors that were significantly correlated with this variable in the previous univariate analyses were included in the model. General attitudes toward usage of cell phones while driving were not included in the analysis because they were closely linked to legislative support and predicted by the same set of variables. As expected, the regression equation was highly significant, $F(15, 233) = 14.23$, $p < 0.001$, $R = 0.68$, $SE = 0.51$, as the predictors accounted for 46% of the variance. Examination of the beta coefficients (see Table 7) indicates that one of the strongest independent predictors of support for legislation was the belief that other drivers' usage of cell phones is a threat to public safety. Legislative support was also independently predicted by the extent to which participants perceived they personally benefited from both others' cellular communications and their own cellular communications while driving. Finally, participants' belief in their ability to drive safely while distracted independently predicted support for the passage of laws to restrict cell phone use.

3.9. Accounting for the inconsistency between cell phone use and support for legislation

To understand the hypocrisy of using cell phones while supporting restrictions, we examined whether there were important discrepancies between the general predictors of mobile phone usage and the general predictors of legislative support. The perceived benefits of cell phone usage (e.g., "Talking on a cell phone when I am driving enables me to connect with friends and family") were strongly predictive of both cell phone usage and legislative preferences. For example, the belief that "I benefit from talking on a cell phone while I drive" was strongly positively correlated with cell phone usage, $r(249) = 0.37$, and strongly negatively correlated with support for legislation, $r(249) = -0.42$. There were no differences in the strength of these correlations when the signs were equated, $z = 0.66$. Moreover, the regression analyses showed that the belief "I benefit from talking on a cell phone while I drive" independently predicted both cell phone usage ($\beta = 0.146$) and support for legislation ($\beta = -0.162$). Thus, the perceived benefits do not appear to have contributed to the hypocrisy of personally using cell phones while supporting restrictions on the use of cell phones by others; drivers who perceived they benefited from cellular communication tended to oppose restrictions on cell phone usage.

In contrast, the perceived risks of cellular communication while driving were generally much more predictive of participants' support for restrictions than their personal usage of cell phones. The correlation between the threat to personal safety presented by others' use of cell phones and support for legislation was much stronger than the correlation between the threat to personal safety presented by drivers' own use of cell phones and cell phone usage, $r(249) = 0.51$ vs. $r(249) = -0.20$, $z = 3.99$ when correcting for the differences in the signs, $p < 0.001$. Similarly the correlation between the danger to public safety presented by others' use of cell phones and support for legislation was much stronger than the correlation between the danger to public safety presented by drivers' use of cell phones and their cell phone usage, $r(249) = 0.54$ vs. $r(249) = -0.25$, $z = 4.10$ when correcting for the differences in the signs, $p < 0.001$. Moreover, the regression analyses revealed that the perceived safety risk of others' usage of mobile devices was a strong predictor of support for restrictions ($\beta = 0.32$) while the perceived safety risk of cellular communication by self or others did not independently predict personal cell phone use.

Why are perceived safety concerns linked to support for legislation but not the personal use of cellular devices? As we discussed earlier, many if not most drivers believe that they can drive safely while distracted and downplay the risks of cellular communication to personal and public safety. However, people lack confidence in others' ability to drive safely while distracted and believe that others' use of cell phones is dangerous. As we discussed above, the threat of others' usage of cell phones to public safety is one of the strongest independent predictors of support for legislation to restrict cell phone use.

4. Discussion

Our study of driving attitudes and beliefs helps to explain why people talk on a cell phone at least occasionally while driving (78% in our sample) and why people support legislation to restrict this practice (62% in our sample). The measures of the perceived benefits and risks of cell phone use while driving, and perceived and actual multitasking ability together accounted for almost 40% of the variance of self-reported cellular communication while driving and

Table 6
Linear regression standardized Beta coefficients and corresponding t-scores of the significant independent predictors of frequency of cell phone use while driving.

	Beta	t-score
Perceived ability to drive safely while distracted	0.296	4.30***
Multitasking ability (OSPAN performance)	−0.129	2.40*
I benefit from talking on a cell phone while I drive	0.146	2.13*
Talking on a cell phone when I am driving enables me to get work or other things done	0.289	4.21***
Talking on a cell phone when I am driving could diminish my standing in my community and my standing among my peers	−0.147	2.50*

Note: Beta refers to the standardized coefficients.
* Significant at $p < 0.05$ level.
*** Significant at $p < 0.001$ level.

Table 7
Linear regression standardized Beta coefficients and corresponding t-scores of the significant independent predictors of support for laws restricting cell phone use while driving.

	Beta	t-score
Perceived ability to drive safely while distracted	−0.185	2.88**
I benefit from talking on a cell phone while I drive	−0.162	2.52*
I benefit from other people talking on a cell phone while they drive	−0.191	3.18**
Talking on a cell phone when I am driving enables me to connect with friends and family	−0.159	2.45*
Talking on a cell phone when I am driving enables me to get work or other things done	0.128	1.98*
People talking on a cell phone while driving threatens the safety and well-being of others	0.320	2.74**

Note: Beta refers to the standardized coefficients.
* Significant at $p < 0.05$ level.
** Significant at $p < 0.01$ level.

over 45% of the variance of support for laws to restrict cell phone use. Thus, a broad and important set of contributors were identified and reported in the results. More importantly, our study helps to understand the hypocrisy of drivers who talk on a cell phone while supporting legislation to restrict the practice (44% in our sample).

In line with previous research (e.g., Eost and Flyte, 1998; Walsh and White, 2006; White et al., 2010), the findings indicate that drivers are motivated to use cell phones by a variety of perceived benefits. Drivers commonly talk on cell phones to connect with family and friends, alleviate boredom, and get work done. They generally recognize the risks of cellular communication during the operation of a motor vehicle. However, many appear to downplay the risks of their personal use of cellular devices. They believe that talking on a cell phone is not nearly as dangerous as drinking and driving, and they saw others' usage of cell phones as much riskier than their own. Following Walsh and White (2006), our study suggests that the perceived benefits are a stronger determinant of cell phone usage than the perceived risks.

Why do drivers downplay the risks of mobile phone usage? Our study shows that many people believe they can drive safely while using a cell phone and most overestimate their ability to do so relative to others. The more participants' self-assessments were inflated, the more likely they were to report using a cell phone while driving. As expected, these self-assessments were negatively correlated with estimations of the risks and positively correlated with estimations of the benefits of cellular communication while driving. However, our findings suggest there is little relation between individuals' conceptions of their ability to drive safely while distracted and their actual ability to multitask as measured by the OSPAN task. Even more alarmingly, multitasking ability was negatively correlated with participants' self-reported usage of cell phones while driving. The regression analysis indicated that participants' confidence in their ability to drive safely while distracted was one of the strongest independent predictors of their usage of cell phones. Thus, cell phone usage appears to be motivated more by people's misconceptions about their ability to drive safely when distracted than by their actual multitasking ability.

Our study was novel in providing a broad understanding of the motivations underlying the support for laws restricting cell phone usage. Following White et al. (2007), the preference for legislation to restrict cellular communication during the operation of a motor vehicle appears to be heavily driven by the perceived risks of others' usage of cell phones. Although motorists are confident in their personal driving abilities, they generally do not believe that other people are capable of driving safely while talking on a cell phone. This lack of confidence in others was highly positively correlated with estimations of the risks of others' usage of cellular communications while operating a motor vehicle. The belief that others' use of cell phones while driving is a threat to the safety and well-being of others, in turn, was one of the strongest independent predictors of support for laws to restrict cell phone use. Most participants also reported that they did not benefit from other people's usage of cell phones while driving. As the perceived benefits of personal and others' usage of cellular communications decreased, support for legislation to restrict cell phone use while driving increased.

Finally, the study found that the largest proportion of drivers use cell phones while supporting legislation to restrict the practice by others. Our analysis of driving attitudes and beliefs helps to explain the apparent hypocrisy of these drivers. Motorists are generally much more concerned about the risks presented by others' cell phone use than the risks presented by their own cell phone use. Many engage in cellular communication because they believe they can drive safely and downplay the risks. However, they support regulation because they lack confidence in others' ability and believe that others' use of cell phones is dangerous. The general support for legislation suggests that most people are willing to give up their own usage of cell phones if the threat to public and personal safety presented by cellular communication by others is diminished.

The study helps to understand why many drivers use cell phones while supporting legislation to restrict this behavior. However, caution should be exercised in drawing conclusions about the causality of the predictors because the data were entirely correlational. The causal relations between some of the predictor variables and our measures of cell phone usage and support for legislation are actually likely to be bidirectional. For example, the negative correlation between cell phone usage and perceived risk may stem, in part, from the effort of drivers to rationalize their cell phone behavior. A second limitation with our study is the reliance on self-reports. We assumed that participants faithfully reported their driving attitudes, beliefs, and behaviors, and that they were aware of the

benefits and costs shaping their behavior. Our concerns about this methodological problem are somewhat diminished by the likelihood that the social desirability pressures that commonly bias more socially sensitive surveys are less apt to have operated in the self-reporting of driving behaviors and attitudes. Although our study was characterized by these methodological shortcomings, the alternatives to the correlational, self-report approach that was taken are somewhat limited. Manipulation of the dangers and benefits of cell phone use on our roadways in an experiment was not very feasible and unlikely to have generated an enthusiastic institutional review board response. Moreover, an experimental design would have severely restricted the scope of the benefits and costs that could have been investigated.

Participation in our study was limited to United States drivers. Although we believe that the basic motivations for using cell phones while driving and concerns about other drivers' usage of cell phones are similar across countries, there is likely to be considerable cultural variability in the perceived personal risk of cell phone use and drivers' confidence in their ability to drive safely while talking on a phone. Another potential limitation is that participants were drawn from a pool of undergraduates between the ages of 18 and 40. Additionally, a number of participants who did not meet the performance criteria on the OSPAN task were excluded. One way to determine the degree to which the data obtained in our study are representative of the population at large is to compare similar items on our survey and the Safety Culture Survey (SCS) conducted by the AAA Foundation for Traffic Safety (2013) which used a nationally representative sample of 3303 U.S. resident drivers between the ages of 16 and 75. When asked "*In the past 30 days, how often have you talked on a cell phone while you were driving*", 69% of SCS respondents answered in the affirmative while 78% of our participants responded "occasionally", "often", "almost always", or "always" to the question "*How often do you use your cell phone while driving*". 66.5% of SCS respondents indicated some level of support in response to the question "*How strongly do you support or oppose having a law against using a hand-held cell phone while driving for all drivers*. . ." whereas 62% of our participants endorsed the statement that ". . .*laws should be passed to restrict the usage of cell phones and driving*". Finally, in our survey, the item "*People talking on a cell phone while driving threatens my personal safety and well being*" had a mean of 3.19 with a standard deviation of 0.62. The SCS item "*How much of a threat to your personal safety are drivers talking on a cell phone*" had a rating of 3.44, a difference that is within one-half standard deviation of the rating on our survey. Thus, there is reasonably good agreement between the ratings of similar items on the nationally representative SCS and our survey.

Although the present study delineated a number of important attitudes and beliefs predicting the usage of cell phones while driving, the study did not investigate how and when they influence driving behavior. The perceived benefits and risks of cellular communication may affect the intended use of cell phones prior to the operation of a motor vehicle. For example, drivers may turn off their phones before starting their cars or form the intention not to respond to incoming calls. These attitudes and beliefs may also influence more proximal decisions about using a cell phone during driving. However, the management of distractions behind the wheel is a complex process that is affected by a host of factors including experience and age, driving habits, fatigue, and the level of engagement or disengagement in the driving task (Lee, 2014). In many driving contexts, the willingness and ability to consider the benefits and risks of using a cell phone may be compromised.

Research is beginning to provide a more complete picture of why and when people multitask. Our previous work (Sanbonmatsu et al., 2013) suggests that people often engage in multiple tasks because of the self-regulatory challenges of inhibiting secondary task involvement and focusing on one activity at a time (see also Ophir et al., 2009). In addition, they are often motivated by the stimulation or sensation of performing multiple tasks simultaneously. Our findings have also shown that people multi-task because they lack awareness of the adverse effects of engaging in multiple tasks simultaneously (Sanbonmatsu et al., 2015). Following previous research (e.g., Walsh and White, 2006), the present study indicates that the likelihood of multitasking is heavily dependent on the perceived costs and benefits. Individuals are especially likely to engage in multiple tasks such as talking on a cell phone and driving when the benefits are perceived to be high and the risks are underestimated. The findings suggest that overconfidence in the ability to perform multiple tasks simultaneously contributes to the pervasiveness of multitasking.

Studies have shown that when people are made aware of their hypocrisy, they are more likely to begin to "practice what they preach" in order to reduce the dissonance induced by the inconsistency of their actions (e.g., Aronson et al., 1991; Stone and Fernandez, 2008). This suggests that one means of diminishing the hazardous use of cell phones behind the wheel may be to increase public awareness of the discrepancy that commonly exists between what drivers do and the driving regulations they advocate. Drivers may also benefit from learning that their confidence in their ability to drive safely while distracted may be misplaced. Heightened awareness of driver overconfidence may contribute to more realistic assessments of the risks of distracted driving and diminish cellular communication during the operation of a motor vehicle.

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