



# The factors underlying the decision to text while driving



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## ABSTRACT

Using the Theory of Planned Behaviour (TPB), this study looked at the motivations and reasons behind the behaviour of texting while driving. Following an elicitation study, 150 participants completed a questionnaire measuring self-efficacy and moral norms in addition to traditional TPB variables. Texting while driving was found to be a common behaviour although prevalence varied between age groups. While the youngest age group were more likely to have ever sent a text message while driving, those aged 35–44 years old were most likely to have read a message while driving and to intend to text while driving in the future. Moral norms had the strongest significant correlation with intentions to text while driving. Similar to past research the traditional TPB variables explained significant variance in intentions to perform the behaviour. To be fully effective, future campaigns and interventions to reduce the behaviour are advised to focus on the moral aspect of the behaviour and the beliefs that it saves time and prevents boredom. The setting of campaigns or interventions and the mode of delivery should also be considered. Efforts to deter the behaviour should be aimed at those of all ages and not just younger drivers.

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## 1. Introduction

It is estimated that every year there are over 1.2 million fatalities and 50 million injuries on the roads worldwide (World Health Organization (WHO), 2009). Given the WHO's (2004) view that most traffic collisions are preventable and due to human behaviour, research on the psychology of driving can play a vital role in contributing to knowledge to help prevent road traffic accidents. While factors such as driving under the influence of alcohol or drugs and excessive speed are oft-cited reasons for road traffic injuries, inattention or diverted attention is a growing risk for collisions, contributing to between 2% (Great Britain) and 37% (Spain) of crashes (WHO, 2011). In particular, the WHO recognised the role that mobile phone use while driving may have with regards to distracted driving, reporting that up to 70% of drivers use a mobile phone at least sometimes while driving (WHO, 2011). This use is not limited to talking while driving, with studies suggesting that texting while driving is highly prevalent. Harrison (2011) reported 91% prevalence in a US college student sample, Nelson, Atchley, and Little (2009) reported a 73% prevalence rate, while Hallett, Lambert, and Regan (2012) found 66% of their sample reported texting while driving weekly.

Despite the prevalence and impact of texting while driving, a review of the literature found only a small amount of research has been conducted in this area (Benden, Smith, Henry, & Congleton, 2012). The effects of texting on driving

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performance are a focus of these studies. Using a driving simulator, [Reed and Robbins \(2008\)](#) found that reaction times were 35% slower in their text message writing condition compared with their control group. Although driving speeds were actually slowed by drivers while sending a text message in an effort to redress the risk, this did not stop participants from drifting into adjacent lanes and variability in lane position. They conclude that the risk of an accident from texting while driving is comparable to that of driving under the influence of alcohol or cannabis. Moreover, a greater amount of time spent not looking at the road, increased variability in lane position, and missed lane changes were also discovered using a sample of young drivers ([Hosking, Young, & Regan, 2009](#)). [Drews, Yazdani, Godfrey, Cooper, and Strayer \(2009\)](#) further reported greater collisions from their young sample while texting and driving using a simulator. While concerning, these results do not necessarily suggest a greater risk of crashes in real life. Naturalistic studies involve the use of sensors and in-car cameras to monitor driving performance in everyday life. The use of these systems means that not only can safety critical events and near crashes be examined, but data can be gathered regarding actual crashes, thereby providing more ecologically valid results. Such studies have shown that different tasks associated with mobile phone use carry different risks. Texting is much more of a risk while driving than other phone-related tasks such as dialling or talking ([Hickman, Hanowski, & Bocanegra, 2010](#); [Olson, Hanowski, Hickman, & Bocanegra, 2009](#)).

In response to the number of accidents and potential dangerous consequences, campaigns have been launched to deter this behaviour. An insurance firm has launched the 'X the TXT' programme. Particularly aimed at teenagers, this international campaign attempts to highlight the dangers of texting while driving, and encourages families as a whole to sign a pledge not to text while driving ([Allstate, n.d.](#)). In Northern Ireland, as part of a road safety campaign by the police and government, advertisements have appeared targeting the behaviour. The campaign appears to use the threat of legislation to deter drivers, with the use of the slogan 'Before you text while driving... be prepared to complete your sentence' and an accompanying image of a prison cell. Despite these efforts it is unclear whether campaigns such as these are based on psychological theories. This is important given that rather than the skills of drivers being solely responsible for risky driving behaviour, extra (psychological) factors are also important. For example, [Summala \(2007\)](#) outlines factors that impact on driving behaviour like emotions (comfort, pleasure and so on), time, and motives. Psychological theories, and particularly the Theory of Planned Behaviour (TPB), have much to offer in terms of informing the design and delivery of behaviour change interventions ([Hardeman et al., 2002](#)), including those related to driving.

### 1.1. The Theory of Planned Behaviour

The TPB ([Ajzen, 1991](#)) postulates that intentions are a precursor to behaviour, which in turn are influenced by a number of socio-cognitive variables, namely, attitudes (positive or negative evaluations of the behaviour in question), social norms (the influence of the thoughts and attitudes of others towards the behaviour), and perceived behavioural control (PBC; the extent to which an individual feels able to perform a behaviour) (see [Fig. 1](#)). These variables can be measured both directly to determine the most important predictors of the behaviour in question and indirectly to enhance understanding of the reasons underlying behaviour. Indeed, by measuring these underlying beliefs we can explore why people hold certain attitudes, which in turn can provide valuable information for designing possible behavioural interventions.

The TPB is well placed to examine driving behaviour and has been successfully applied to a variety of risky driving behaviours such as drink driving ([Moan & Rise, 2011](#)), speeding and dangerous overtaking ([Forward, 2009](#)). In fact, research illustrates that it has been successful in changing beliefs and attitudes towards speeding ([Stead, Tagg, MacKintosh, & Eadie,](#)

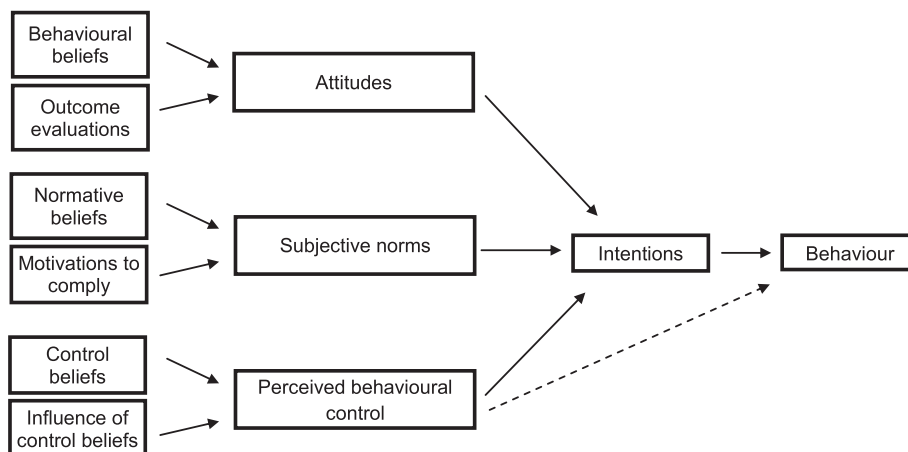


Fig. 1. The Theory of Planned Behaviour.

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