Attention

It is illegal to use mobile phones while driving and this includes the use of hands-free equipment. However, many people continue to break the law. Draw on theories and research in attention to produce an argument which would convince law breakers to stop using their phones while driving.

This essay aims to explore attention and its theories and relate them with research about using mobile phones while driving in order to produce an argument which would convince law breakers to stop using their phones while driving. Firstly, an explanation of attention and its theories will be presented.

Attention may be defined as a cognitive process of selectively concentrating on one aspect of the environment while ignoring other things. Attention has also been referred to as the allocation of processing resources (Anderson, John R. 2004). There are three main theories of attention: Broadbent (1958), Treisman (1960), and Deutsch and Deutsch (1963). The British psychologist Donald Broadbent put forward the first detailed theory of attention. His filter theory was based on findings from the shadowing (a task in which there are two auditory messages, one of which has to be repeated back aloud or shadowed) and dichotic listening (a task in which pairs of items are presented one to each ear, followed by recall of all items) (Eysenck 2004). In this type of experiment, subjects would use a set of headphones to listen to two streams of words in different ears and selectively attend to one stream. After the task, the experimenter would question the subjects about the content of the unattended stream. Treisman (attenuation theory) found that selective attention was more flexible than was assumed by Broadbent. She found with shadowing task that the participants sometimes said a word that had been presented on the unattended message. This is known as 'breakthrough', and mostly occurs when the word on the unattended message is highly probable in the context of the message on the attended channel. (Eysenck 2004) However,

the same findings were also explained by Deutsch and Deutsch. They claimed that all stimuli are analysed for at least some aspects of meaning, with the most important or relevant stimulus determining the response. This theory differs from filter theory and attenuation theory in placing the bottleneck closer to the response end of the processing system (Eysenck 2004). In short, all of these theories are relevant. It reveals that people are not able to pay attention for more than one thing at a time which requires responsibility as for example using mobile phone and driving at the same time.

Mobile phone use whilst driving is a serious issue as life gets busier. Time used up while driving is increasingly viewed as unproductive and is seen as an opportunity for accomplishing other tasks such as maintaining contact with the office, home and personal friends. Driving while using a mobile phone can cause both physical and cognitive distraction. Specifically, using a mobile phone while driving can significantly impair a driver's: reaction time, visual search patterns, ability to maintain speed, ability to judge safe gaps in the traffic, and general awareness of other traffic. Mobile phone use also often involves associated tasks that may further distract the driver. These activities can include writing down phone numbers on a piece of paper whilst driving or writing down dates or notes in diaries. Sending a text message while driving is likely to be even more risky. Run-off-the-road crashes and 'rear end' crashes are the most common types of crashes associated with mobile phone usage. The current penalty for driving while using a handheld mobile phone is a £1000 and 3 penalty points. Using a mobile phone whilst driving, is the third most common 'on the spot' driving offence behind speeding and the non-wearing of seatbelts (Road Safety 2007).

The law banning use of handheld mobile phones while driving presupposes that it's the handling aspect of mobile use that's dangerous rather than the communication aspect. Now a study by psychologists at the University of Illinois has added to the evidence showing that hands-free phones could be dangerous too. Dozens of students sat at the wheel of a driving simulator and aimed to

maintain their lane position and speed as steadily as possible. While driving, they sometimes had to complete a second task that involved either judging the accuracy of statements about the relative location of two campus buildings (speech comprehension), or they had to repeatedly describe the relative location of different campus buildings (speech production). When performing either of the secondary tasks, the students were less able to maintain a steady speed or maintain a steady distance behind another vehicle, compared with when they were driving without distraction. The authors said their results support the notion that "it's the cognitive demands associated with communication via wireless phones, rather than use of the phone itself, that interferes with driving performance" (Kubose, Bock, Dell, Garnsey, Kramer, Mayhugh 2005). This research provides proof that it is more difficult for people to maintain a steady speed and distance while driving behind other vehicles, because of not being able to judge accuracy correctly.

To sum it all up, using mobile phones while driving can even be fatal. According to the attention theories which were found by Broadbent (1958), Treisman (1960), and Deutsch and Deutsch (1963) we can draw a conclusion that people can't do more than one thing at the same time which requires responsibility and attention because they can't concentrate properly on both of them. The research provides reasonable arguments which prove that driving and using mobile phone at the same time can cause problems in judging object distances correctly, and as a result of that people have to realise that using mobile phone is not worth risking, because it could lead to a tragedy.

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