

Effects of time pressure on feelings of stress, activation and arousal, and drivers' risk taking behaviour

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Abstract

Main goal of the present study was to evaluate the impact of time pressure on the affective state of the participants and their choice of risky behaviour in a simulated driving situation. Two groups participated, an experimental group (with time pressure) and a control group (without time pressure). The results showed that the participants who were instructed to drive with time restrictions felt more activation, more aroused, more stressed and drove faster than the drivers without the time constraints.

Introduction

In today's fast changing world "being under time pressure" and feelings of being rushed are increasingly common perceptions. Time pressure results when a time constraint induces feeling of stress and creates a need to cope with the limited time (Ordoñez and Benson, 1997). The decisions that a driver must take in any route are usually made under some form of time constraint (Dirección General de Tráfico, 1997; Rothengatter, 1997). A number of studies have hypothesised that temporary restrictions could cause changes in the subject's affective state and induce feelings of time pressure or stress (Maule & Hockey, 1993; Svenson & Benson, 1993). Time pressure may also influence decision making in different traffic situations (Näätänen & Summala, 1976). For example, researchers have found that when under time pressure drivers choose higher speeds and shorter headway distances (Van der Hulst, 1999). Drivers often report driving faster because they are in a hurry (Adams-Guppy & Guppy, 1995; Gabany, Plumer & Grigg, 1997). Therefore, drivers are placing themselves (and others) at risk, as one of the main causes of motor vehicle crashes is excessive speed (De Rozas & Yagüe, 1999; Megía, Morales & Nájera, 1995). Since reducing the duration of the journey has a high priority, drivers travel faster (Kanellaidis, 1995). The main goal of this study was to evaluate the impact of a limited time interval (time pressure) on the affective state of the participants and in their choice of risky behaviour in a simulated driving situation.

In D. de Waard, K.A. Brookhuis, J. Moraal, and A. Toffetti (2002), *Human Factors in Transportation, Communication, Health, and the Workplace* (pp. 245 - 248). Maastricht, the Netherlands: Shaker.