Driving styles and their associations with personality and motivation

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**Abstract**

The associations between driving styles and the Big-Five personality factors and perceived costs and benefits of driving were examined in order to obtain a more comprehensive understanding of driving styles. Questionnaires tapping driving style, personality traits, motivations for driving, and background variables were completed by 320 drivers (150 men and 170 women). The results show that each driving style is associated with a unique set of sociodemographic, personality, and motivational factors. The reckless and angry styles were both endorsed more by men than women, by younger drivers, and by those displaying higher levels of Extraversion and thrill seeking, and lower levels of Agreeableness and Conscientiousness. However, whereas the reckless style was also predicted by the perceived costs of driving-related distress, as well as higher perceived risk to life among those with higher education, the angry style was also predicted by perceptions of both control and annoyance among more educated drivers. The anxious style was endorsed more by women, and by drivers lower on Conscientiousness and higher on Neuroticism. Individuals reporting this style regard driving as a cause of distress and annoyance, and, depending on their level of education, perceive it as entailing more risk to life and as a potential damage to their self-image (higher education), or as providing more opportunities for impression management (lower education). The careful driving style was endorsed more by women, and associated with higher Agreeableness, Conscientiousness, and Openness, along with higher pleasure (especially among younger drivers), but lower thrill seeking and worries about damage to self-esteem.

The discussion focuses on the importance of looking at driving styles and their predictors holistically in order to design practical interventions suited to different profiles of drivers.

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1. Introduction

The human factor in driving consists of two elements: driving skills and driving style. Driving style refers to the way a person chooses to drive or to their customary driving mode, including features such as speed, headway, and habitual levels of attentiveness and assertiveness, and it is expected to be influenced by attitudes and beliefs regarding driving, as well as by general needs and values (Elander et al., 1993). Taubman-Ben-Ari et al. (2004) suggested four broad driving styles which are conceptualized in the multidimensional driving style inventory (MDSI): (1) the reckless and careless style, which refers to deliberate violations of safe driving norms and thrill seeking while driving, and is characterized by high speed, illegal passing, and so on; (2) the anxious style, which relates to feelings of alertness and tension, along with ineffective relaxation activities when driving; (3) the angry and hostile style, which refers to expressions of irritation, rage, and hostile attitudes and acts on the road, and is typified by a tendency for aggressive behavior, such as cursing or flashing lights at other drivers; and (d) the patient and careful style, an adaptive style that includes planning ahead, attention to the road, patience, courtesy, calmness, and obedience to traffic regulations. These styles were found to correlate with performance measures collected in a simulator (i.e., driving speed, number of driving maneuvers, passing gaps; Farah et al., 2009). They were also found to be related to various demographic and personality variables on the one hand, and to driving-related measures on the other (Taubman-Ben-Ari et al., 2004).

Basic demographics and certain personality traits have long been cited as central causes of risky driving and traffic crashes (Holland et al., 2010). Some of the major characteristics that have been shown to predict risky driving are lower age and male gender (e.g., Shinar and Compton, 2004), less driving experience (e.g., Kweon and Kockelman, 2003), higher aggression (e.g., Dahlen et al., 2005; Deffenbacher et al., 2003; Ulleberg and Rundmo, 2003), anxiety (e.g., Olteadal and Rundmo, 2006; Westerman and Haigney, 2000), and sensation seeking (e.g., Jonah, 1997; Schwebel et al., 2006; Ulleberg and Rundmo, 2003).