Thrill and adventure seeking in risky driving at work: The moderating role of safety climate

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A B S T R A C T

Introduction Within many industrialized countries, the leading cause of worker fatalities and serious injuries can be attributed to road trauma. In non-occupational research, high levels of sensation seeking personality, and specifically thrill and adventure seeking, have been associated with risky driving behaviors. In work driving literature, high organizational safety climate has been associated with reduced risky driving in work drivers. However, the extent that factors such as safety climate and thrill seeking interact in regard to work driving safety remains unclear, and the current research examined this interaction. Methods A total of 1,011 work drivers from four organizations participated in the research. Surveys were distributed online and hardcopies were sent via mail. The survey included measures of thrill and adventure seeking, safety climate and work-related driving behaviors, as well as questions relating to participant demographics and information about their work driving. Results The results demonstrated that safety climate significantly moderated the effect of thrill and adventure seeking trait on driving errors, driving violations, and driving while fatigued. Conclusion These results suggest that the development of a strong safety climate has the potential to improve work driving safety outcomes by reducing the impact of particular personality traits such as thrill seeking within an organizational context.

Practical application To improve work driving safety, organizations and management need to develop strategies to encourage and foster positive work driving safety climate, particularly within work settings that may attract thrill and adventure seeking employees.

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1. Introduction

A high proportion of the traffic activity in Australia involves work-related driving. The Australian Bureau of Statistics (2015) reported that 18% of the total number of kilometers traveled by Australians in 2014 were business-related and 25.4% involved travel to and from work. In addition, previous research also indicates the majority of new vehicles purchased within Australia were for organizational work. In previous research (2014) were business-related and 25.4% involved travel to and from work, it is not surprising that a high proportion of road crashes in Australia are work-related and that crashes have been identified as the leading cause of fatalities at work (Safe Work Australia, 2015; Wishart, Rowland, Freeman, & Davey, 2011b). Safe Work Australia (2015) reported that two-thirds of the total work-related fatalities in Australian organizations involved a vehicle (e.g., vehicle collision, rollover of non-road vehicle) over the 2003 to 2015 period (Safe Work Australia, 2015). On average, around 30% to 35% of work fatalities are attributed to a vehicle collision each year (Safe Work Australia, 2015). This finding is similar to other industrialized countries such as France (Fort, Ndagire, Gadebeku, Hours, & Charbotel, 2016) and the United States (Bureau of Labor Statistics, 2016). In addition to these human costs, work-related road crash injuries and fatalities place a noticeable financial burden on the Australian government and the organizations (Davey & Banks, 2005). Davey and Banks (2005) estimated that a work-related crash costs organizations an average of $28,000 for each insurance claim. These crashes also have indeterminate costs, not necessarily factored into cost calculations to businesses and to the community, such as absence from work, compensation, and loss of productivity due to down time (Murray, Newnam, Watson, Davey, & Schonfeld, 2003).

Despite the alarming statistics and the legislative requirement for organizations to manage employees’ safety while driving for work, previous research suggests that organizations often fail to adequately manage this risk with the same commitment as other workplace hazards (Rowland, Davey, Freeman, & Wishart, 2008; Wishart, 2015; Wishart et al., 2011b; Wishart, Rowland, Freeman, & Davey, 2011a). One of the challenges associated with managing work driving safety is the complexity of the inter-related issues that influence work driving safety as demonstrated by the Occupational Light Vehicle (OLV) Use Systems Model (Stuckey, Lamontagne, Glass, & Sim, 2010). The OLV-use Systems Model highlights five levels of influence which consist
of the driver, immediate physical environment (the vehicle), external environment (road), organizational environment, and external influences (policy and legislation). This model has been used within the work driving safety research to better understand the complex factors outside the direct control of the driver (e.g., organizational environment) as well as the drivers' characteristics (e.g., gender, driving exposure) that can have an influence on their safety while driving for work (Stuckey et al., 2010; Wishart, 2015).

In an attempt to better understand these inter-related influences, researchers have investigated the impact of psychosocial and personality factors within the work driving setting (e.g., Newnam & Watson, 2011; Seibokaite & Endriulaitiene, 2012; Wills, Watson, & Biggs, 2006; Wills, Watson, & Biggs, 2009). For instance, when considering the interaction between personality, safety climate, and work motivation and their effect on risky driving practices, inferences made by Seibokaite and Endriulaitiene (2012) suggest that “socially-oriented” (i.e., those high on agreeableness, conscientiousness, extraversion, and openness) drivers are more likely to drive safely if their perception of safety climate was high and they have high work motivation. This argument suggests that safety climate may have the potential to mitigate work driving risk by exerting a positive influence on the relationship between various personality factors (e.g., thrill and adventure seeking) and work driving behaviors.

The role of dispositional characteristics on occupational safety incidents has been explored by a number of researchers (e.g., Clarke & Robertson, 2005, 2008). However, recent studies have shown that only particular facets of personality have more influential associations with occupational safety behaviors (Beus, Dhanani, & McCord, 2015).

Beus et al. (2015) found that sensation seeking (ρ = .27) is more strongly related to workers’ risky behaviors compared to the Big Five personality traits of neuroticism (ρ = .13) and extraversion (ρ = .10). In general road safety literature, sensation seeking has also been found to be a better predictor of risky driving behaviors compared to other higher-order personality traits (e.g., Dahlen, Martin, Ragan, & Kuhlman, 2005; Jonah, 1997; Schwebel, Severson, Ball, & Rizzo, 2006). For instance, Schwebel et al. (2006) found that sensation seeking is a better predictor of self-reported driving violations (measured by the Driving Behaviour Questionnaire and Driving Habits Questionnaire), than conscientiousness and hostile traits.

Sensation seeking is a trait defined by an individual’s tendency to search for novel, intense, and varied sensations and his or her willingness to take risks to experience such sensations (Zuckerman, 1994). Individuals who have high levels of sensation seeking traits are more likely to seek out pleasure and excitement and tend to underestimate risks or perceive them as a challenge (Zuckerman, 1994). Earlier research synthesis of sensation seeking and risky driving behaviors found a positive and moderate relationship between sensation seeking personality and risky driving behaviors (i.e., drink driving, speeding, and non-seatbelt use) with correlations between 0.30 and 0.40 (Jonah, 1997). Further, Jonah (1997) noted that sensation seeking accounted for 10–15% of variance when measuring risky driving behaviors. Within this synthesis, Jonah (1997) also found that in one of the four dimensions of sensation seeking identified by Zuckerman (1994), thrill and adventure seeking appears to have the strongest relationship with risky driving behavior.

Thrill and adventure seeking is defined as one’s desire to engage in physical activities that elicit unusual experiences and sensations from the individual (Zuckerman, 1994). When applied to the driving setting, individuals with high levels of thrill and adventure seeking trait may perceive the risks associated with their unsafe driving behaviors, but still accept the risk in order to experience the thrill associated with that behavior (Jonah, 1997). In non-occupational research, researchers found that individuals are more likely to engage in various risky behaviors especially if they value the risk in a positive manner (Hatfield, Fernandes, & Job, 2014). Furthermore, if individuals are engaging in risky behaviors that elicit high levels of thrill and adventure seeking and no immediate negative consequences were experienced, then those individuals are more likely to engage in similar risky behavior in the future (Jonah, 1997).

Thrill and adventure seeking may explain at an individual level why some employees tend to engage in risky driving behaviors even within a work setting. Observational field research using male taxi drivers found that those with high-risk personalities were more likely to exhibit risky driving behaviors, such as speeding and careless maneuvering (Burns & Wilde, 1995). Furthermore, in a study using a large sample of Australian work drivers, it was found that employees high in the thrill and adventure-seeking trait were more likely to engage in risky driving behaviors, such as committing errors and violations and driving while distracted and fatigued (Wishart, Somoray, & Rowland, 2017). These studies suggest an employee’s thrill and adventure seeking personality profile is an important factor to consider when examining risky behaviors in occupational settings, such as risky behaviors when driving for work.

1.1. Safety climate and work-related driving behaviors

In addition to workers’ thrill and adventure seeking personality trait, safety climate has been identified as one of the integral factors that impact on employees’ driving behavior (Amponsah-Tawiah & Mensah, 2016; Newnam & Watson, 2011; Wills et al., 2006; Wills et al., 2009). Within occupational safety research, safety climate represents workers’ perceptions of their organization’s safety culture and practices (Zohar, 1980, 2010), which consequently influence their own occupational behavior such as driving for work. DeJoy (1994) proposed that safety climate could be explained using the attribution theory. Based on this theory, safety climates are inferences that employees make about their organization’s safety practices, which consequently shape their behaviors at work (DeJoy, 1994). In other words, employee behavior is shaped or influenced by their perceptions about the importance and relevance placed on aspects of safety within the organizational context. This concept has also been applied within the work driving setting, with safety climate specifically attributed to the importance that organizations place on fleet safety policies and practices, and safe driving behaviors of their workers (Wills et al., 2009).

Previous research has suggested that improving safety climate in organizations may have a positive impact on employees’ safety while driving for work (Amponsah-Tawiah & Mensah, 2016; Wills et al., 2006; Wills et al., 2009). For instance, Wills et al. (2009) found that employees’ perception of safety climate was a significant predictor of safe work driving behavior. Furthermore, safety climate explained the largest variance of work driver’s behaviors compared to the employees’ safety attitudes, perceived behavioral control, subjective norms, situational factors, and driving experience (Wills et al., 2009). Similarly, other studies found that safety climate significantly predicted fatigue-related near misses in work drivers (Strahan, Watson, & Lennon, 2008). These researches on safety climate have demonstrated that, while driving behaviors are influenced by dispositional characteristics such as age, gender, and personality traits (Darby, Murray, & Raeside, 2009), management practices could also impact on their workers’ driving behaviors (Mooren, Grzебieta, Williamson, Olivier, & Friswell, 2014; Wills et al., 2009).

Outside work driving research, several studies found the interacting effect of safety climate on the relationship of personality and safety-related behaviors. For example, in the meta-analysis conducted by Beus et al. (2015), the combination of conscientiousness, agreeableness, and neuroticism personality traits and safety climate measures accounted for nearly half (R² = .43) of the total variance found in safety behaviors. Safety climate, however, accounted for more of the explained variance (66.8%) compared to personality traits (33.2%). This finding demonstrated that, while personality accounted for a substantial variance in safety behaviors, safety climate was the stronger correlate.

However, although thrill and adventure seeking has been found to be a better predictor of risky driving behavior compared to other personality
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