

Contents lists available at ScienceDirect

## Transportation Research Part F

journal homepage: www.elsevier.com/locate/trf



# Media influence on perception of driving risk and behaviors of adolescents and emerging adults \*



Chrysalis L. Wright\*, Kelly Silberman

University of Central Florida, United States

#### ARTICLE INFO

Article history: Received 10 June 2016 Received in revised form 26 January 2018 Accepted 1 February 2018

Keywords: Risky driving Cultivation theory Social cognitive theory Media

#### ABSTRACT

The current study examined the impact of exposure to dangerous driving behaviors via media on the perception of driving risk and driving behaviors by assessing 1356 male and female college students between the ages of 17 and 25. It was hypothesized that (a) increased media exposure to dangerous driving behaviors would be related to positive attitudes regarding risky driving behaviors as well as engaging in such behaviors and (b) media exposures would be related to participant attitudes, which, in turn, would be related to participants driving behaviors. Results of hierarchical regression analyses confirmed that media exposure to dangerous driving behaviors impact attitudes regarding driving and driving behaviors, while controlling for participant age and biological sex, with movie exposure playing a greater role than exposure vi a video games. A Test of Joint Significance confirmed that media exposure to dangerous driving behaviors influence participants attitudes regarding driving, which, in turn, impact reported driving behaviors. Theoretical explanations are discussed.

© 2018 Elsevier Ltd. All rights reserved.

#### 1. Introduction

In 2009, over 76,000 people were involved in fatal automobile accidents (United States Census Bureau, 2012a). Additionally, there were almost 11 billion automobile accidents in 2009 (United States Census Bureau, 2012b). One of the primary contributing factors to motor vehicle collisions is aggressive driving behavior, which includes various dangerous driving actions such as tailgating, cutting off other vehicles, and speeding. Aggressive driving has contributed to approximately 50% of all motor vehicle collisions (Wickens, Wiesenthal, Flora, & Flett, 2011). Additionally, unsafe driving behaviors are the most common cause of road accidents with emerging adults being responsible for 95% of all fatal crashes (Morisset, Terrade, & Somat, 2010).

Younger and newer drivers are more likely to engage in risky driving behaviors, such as speeding and driving under the influence of drugs and alcohol, which contributes to an increase in injuries and accidents on the road (Harbeck & Glendon, 2013). In 2003, motor vehicle accidents were the leading cause of death in college-age youth in the United States (McCarthy, Lynch, & Pederson, 2007). Additionally, biological sex plays a role in risky driving behaviors and automobile accidents, with male drivers engaging in more risky driving behaviors (Li, Baker, Langlois, & Kelen, 1998; Rhodes & Pivik, 2011), violating traffic regulations more, receiving a greater number of fines, and being involved in automobile accidents more often than

<sup>\*</sup> The data presented, the statements made, and the views expressed are solely the responsibility of the authors.

<sup>\*</sup> Corresponding author at: Department of Psychology, University of Central Florida, 4000 Central Florida Blvd, Orlando, FL 32816, United States. E-mail address: Chrysalis.Wright@ucf.edu (C.L. Wright).

female drivers (González-Iglesias, Gómez-Fraguela, & Luengo-Martín, 2012). Males have also reported experiencing more anger while driving than female drivers (González-Iglesias et al., 2012). Furthermore, the National Highway Traffic Safety Administration has reported that not only are male drivers who are involved in fatal crashes more likely to have been speeding than their female counterparts (National Highway Traffic Safety Administration, 2008) but the fatality rate for male drivers is more than triple that of female drivers (National Highway Traffic Safety Administration, 2009).

One potential contributing factor to unsafe and aggressive behaviors on the road is frequent and increased exposures to the portrayal of dangerous driving behaviors in the media. The purpose of this study was to examine the relationship between exposure to dangerous driving behaviors via video games and movies and the reported risky driving behaviors and perceptions of risk among those in late adolescence and emerging adulthood.

#### 1.1. Theoretical perspective

The current study is grounded in two theoretical perspectives: cultivation theory and social cognitive theory, both of which have been examined extensively in media research.

Social cognitive theory states that any type of social behavior can be learned by observing the actions of others (Bandura, 1977). The social behavior can also be influenced by being rewarded or punished for these actions. According to Bandura (2001), people are more likely to display modeled behavior if it results in positive effects than if it has unsatisfactory or negative effects. Additionally, according to Bandura (1986) the person observing the behavior is most likely to familiarize with the same sex as themselves. Therefore, if the person observing the behavior is male, and the person driving recklessly who is either rewarded for their behavior or not punished for the behavior is also male, the male viewer would be more likely to imitate such driving behaviors.

Another theory that supports the assumption that the media influences risky driving behaviors among adolescents and emerging adults is cultivation theory. Cultivation theory specifically looks at how the media influences perception of reality and states that the more a person is exposed to media, the more a person begins to believe that what they are exposed to is normal or real (Gerbner, Gross, Morgan, & Signorielli, 1994). The cultivation framework states that the more people "live" in the media world, the more likely they are to believe that what is portrayed is a reflection of reality (Cohen & Weimann, 2000; Gerbner et al., 1994). Viewers may misinterpret what is real and socially acceptable in the real world versus virtual reality scenarios. Additionally, the level of cultivation can be expected to decrease with a parental co-viewer present (Gerbner, 1998).

#### 1.2. Media influence

Video games have become extremely popular in the United States. There are many ways consumers can play these games, such as through computers, consoles, cell phones, and other various portable devices. Needless to say, players have access to these video games virtually everywhere and anytime. Racing games have become one of the top selling game genres among the video game market (Fischer, Kubitzki, Guter, & Frey, 2007). Within photographically realistic virtual environments, players race through urban and suburban traffic. Driving actions in these games often include competitive and reckless driving, speeding and crashing into other cars or pedestrians, or performing risky stunts with the vehicle. Most actions in racing games imply a very high risk of having an accident or severe crash in a highly realistic virtual road traffic environment. Previous research has found that playing aggressive video games increase aggression-related cognitions, affect, and behaviors (Fischer et al., 2007). The National Television Violence Study (Bushman, 1998) expressed that violent content can be found in 60% of television media and the same goes for video games. Violent and sexual acts on television and video games are becoming a common phenomenon (Ferguson, Cruz, Martinez, Rueda, & Ferguson, 2010).

Video games serve as an opportunity for many individuals to play the role of different people with consequences that go beyond the actual activities replicated in the game (Fischer et al., 2009). Some of the most common hazardous behaviors that are promoted in video games are speeding, tailgating, running red lights, and going in and out of traffic (Fischer et al., 2009). Fischer et al. (2009) mentioned that "racing games make players more comfortable with breaking traffic rules, which carries over to the risk taking in real driving situations" (p. 1397).

The same form of reckless and risky driving behaviors are found in movies and film. Television and movie characters commonly promote extremely risky driving behaviors, and in addition to this, characters are seldom threatened with the adverse consequences of their actions (Beullens & Van den Bulck, 2008). Previous research has found that exposure to these forms of movies is associated with increased levels of risk-taking behaviors and risky driving (Fischer, Vingilis, Greitemeyer, & Vogrincic, 2011). Fischer et al. (2011) go on to conclude that exposure to violent media provides the initial trigger for aggressive behavioral responses. Other research has concluded that risk-taking behaviors among late adolescents (ages 17–19) and emerging adults (ages 20–25) is problematic because exposure to movies portraying risky driving behaviors have conditioned those in this age-range to respect risk-takers as well as to act out risky behaviors while they are driving themselves (Rhodes, Brown, & Edison, 2005). Additionally, several research studies have demonstrated that males are more likely to watch movies containing risky driving behaviors and that males are less likely than females to view dangerous driving behaviors as such (Beullens, Roe, & Van den Bulck, 2011; Beullens & Van den Bulck, 2008).

### Download English Version:

# https://daneshyari.com/en/article/7257930

Download Persian Version:

https://daneshyari.com/article/7257930

<u>Daneshyari.com</u>