

Deindividuation of Drivers: Is Everyone Else a Bad Driver?

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1. Introduction

The reduction of self-consciousness due to anonymity provided by a group or the inability to be individually identified is known as deindividuation (DI; Festinger, Pepitone, & Newcomb, 1952). Previous DI research has been focused on group interactions (Festinger, Pepitone, & newcomb, 1952), anonymity (Zimbardo, 1969), and (more recently) computer-mediated communication (Lee, 2008). One previous study examined DI and driving using environmental observation (Wiesenthal, & Janovjak, 1992). Discourteousness observed in drivers could be related to DI as individuals may feel less identifiable in their vehicle, or may conform to the group-like mentality of others on the roadway.

2. Method

(Thirty-two undergraduate University of Central Florida (UCF) students (13 male and 18 female) participated in this experiment (mean age = 19.38 years). This was a between-subjects experimental design with two conditions; the participant being aware of observation (observed; $n = 16$) and the participant remaining unaware of observation (unobserved; $n = 15$). Participants were required to follow signage, audio, and visual instructions in both conditions. In the observed condition, the experimenter was in the room but was not allowed to speak with the participant. In the unobserved condition the experimenter observed the participant via camera. Participants were required to interact with an I-Sim Driving Simulator and were given a tutorial on how to use the simulator and a practice drive; after which, they were asked to fill out an abbreviated Driver Stress Inventory (DSI; Matthews, Desmond, Joyner, Carcary, & Gilliland, 1996) and Driver Coping Questionnaire (DCQ; Matthews et al., 1996). Participants drove within the experimental simulation and subsequently completed selected subscales of the Dundee Stress State Questionnaire (DSSQ; Matthews, Joyner, Gilliland, Huggins, & Falconer, 1999) and the NASA Task Load Index (TLX; Hart & Staveland, 1988). Driving data included the number of crashes into objects (there were no collisions), duration of time spent deviating from the posted speed limit by 5 mph, failure to signal when changing lanes, and total time spent off-road.

3. Results

Driving data were analyzed using a multivariate ANOVA ($F(1,3) = .420, p = .740, \text{partial } \eta^2 = .045$) but no significance were found. Questionnaire data were analyzed using a multivariate ANOVA ($F(1,6) = 1.181, p = .349, \text{partial } \eta^2 = .228$). Interestingly the TLX sub-scale of performance (successful task completion) approached significance ($F(1,29) = 3.719, p = .064, \text{partial } \eta^2 = .114$).

4. Discussion

This exploratory study attempted to evaluate a series of variables for their potential use as indicators of DI in drivers. Although these data did not show significance as a direct measure of DI, the performance sub-scale of the TLX may be indicative of DI tendencies, and future studies should look to focus on this construct. One potential confound in this study may have been the use of the driving simulator, as participants did not knowingly interact with other people in the simulated environment. Future research efforts should therefore manipulate individuals' ability to see not only the experimenter (i.e., an observer), but also other drivers (i.e., stakeholders in the social roadway environment) we hope to explore this particular alternative research question as our three fixed-base driving simulators are able to accommodate multiple participants in the same simulated scenario. The ecological validity inherent to such an experimental protocol (in which individuals are able to safely interact with fellow drivers) may provide additional interesting insight into the phenomenon of deindividuated drivers.

References

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