Dude, calm down! De-escalating Driving Anger using in-car information

Sabine Wollstädt1, Mark Vollrath2, Hans-Rüdiger Pfister1

1Leuphana University Lüneburg, 2Braunschweig University of Technology
Addressing Anger Antecedents

\[ \text{Situation} \rightarrow \text{Attention} \rightarrow \text{Appraisal} \rightarrow \text{Response} \]

- **Distraction** (Attentional Deployment)
- **Reappraisal** (Cognitive Change)

\(^1\)Gross, 2007
Addressing Anger Antecedents

Reappraisal reduces anger and risky driving behaviour (e.g. Deffenbacher et al., 2002)

Reappraising information reduced bad driving behaviour (Harris & Nass, 2011)

Distraction has benefits in high-intensity situation (Sheppes, 2011)

Distracting positive stimuli leads to slower driving (Chan & Singhal, 2013)
Research Aim

Aim 1: Down-regulating anger with distracting and reappraising in-vehicle information

Aim 2: Identifying superior in-vehicle information for events with a low vs. high anger-intensity
Method

Participants: 55 (61.8% female, Age 18-37, M=22.04; 75.74km/w & 5,172km/y)

Driving Events: Traffic jam, tailgater, and slow car

Treatment: In-vehicle information: Distracting or reappraising information

Measure: Anger-rating, heart rate, driving behaviour
In-Vehicle Information

Distracting Information

Did you know? Business Psychologist Holger Schröder implemented a new strategy for the Lufthansa Human Factors training department. He was subsequently promoted to the local Lufthansa corporate business development department. He is currently recruiting recent psychology university graduates for internship positions.

Reappraising Information

The vehicle in front of you is travelling below the speed limit. This road is frequented by people who are from overseas or interstate. It is common for GPS signals to be lost on country roads. It is likely that the person in front is simply waiting for their GPS to come back online before returning to the speed limit.
RESULTS

Mean Anger Difference

Mean Speed Difference

Anger Event

* p < .05
Preliminary Conclusion

- Reappraising in-vehicle information yielded promising effects on anger regulation.
- Especially in low-anger events.
- Distracting in-vehicle information showed benefits for speed in high-anger events.
Limitations

Manipulation

• Distracting information did not meet drivers' interest

Measure

• Did we distract their attention? Did they reappraise the situation?
Future Research

Upcoming experiment exploring drivers thoughts in anger-provoking driving events

• They are asked to think aloud while driving

• While listening to reappraising in-vehicle information

• But controlled for individual differences in reappraisal usage
Thank you very much!
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