Commuting Stress and How New Information Technologies Could Help

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Introduction

It is undeniable that the way to work is mostly one of the less enjoyable events of the day and can cause psychological as well as physiological strain.

Up to today research has clearly shown, that commuting stress is affected by variables such as *control* (Kluger, 1998; Sposato, 2011), *predictability* (Evans, Wener, & Phillips, 2002; Sposato, 2011), the *duration of the commute* (Evans & Wener, 2006; Sposato, 2011) and *impedance* (Novaco, Stokols. Cambpell, & Stokols, 1979). From the mostly atheoretical work, two major theory based approaches stand out: Novaco et al.' (1979) theory of impedance, argueing, that the stress commuters experience is a function of how hindered they are in reaching their workplace and Kluger's (1998) refinement of the impedance theory, which highlights control as the salient factor.

The present study investigates the impact of several factors on the stress that commuters experience and clarifies possible relations between variables, with the main hypotheses being: (a) Control is the most prominent predictor of commuting stress. (b) The effect of predictability is not linked to the precondition of lack of control. (c) The duration of the commute has a moderating effect.

Method

For the purpose of this study, an online questionnaire was completed by 363 commuters of the Vienna region (54% women, 37 mean age, 33.9% cyclists, 40.1% public transport users, 25.1% drivers).

Analysis was carried out using multiple regression with single predictors (control, predictability, duration of the commute, impedance, costs & years of commuting) and interaction terms.

Results

Results suggest that control is the most powerful predictor of stress. The duration of the commute significantly interacts with control, yielding that the effect of control grows over time. Moreover control significantly interacts with predictability, indicating a reciprocal aggravation of the effects of both variables.

Discussion

Based on these findings a new research model is proposed. Furthermore the results are discussed in the light of possibilities that information technologies can provide and the experience gained in a related project on the development of a new route-guiding platform. Measures that could positively affect the experience of commuters are presented, in particular concerning the usage of mobile devices combined with real time traffic information.

References

Evans, G. W. & Wener, R. E. (2006). Rail commuting duration and passenger stress. *Health Psychology, 25(3),* 408-412.

Evans, G. W., Wener, R. E. & Phillips, D. (2002). The morning rush hour: Predictability and commuter stress. *Environment and Behavior, 34*(4), 521-530.

Kluger, A. N. (1998). Commute variability and strain. *Journal of Organizational Behavior, 19*(2), 147-165.

Novaco, R. W., Stokols, D., Campbell, J., & Stokols, J. (1979). Transportation, Stress, and Community Psychology. *American Journal of Community Psychology, 7*(4), 361-380.

Sposato, R. G. (2011). *Stress und Lebensqualität bei PendlerInnen.* Saarbrücken: VDM Verlag Dr. Müller.