



*Organizational Justice and Health. Contextual Determinants and  
Psychobiological Consequences*

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# **Organizational Justice and Health: Contextual Determinants and Psychobiological Consequences**

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## **Summary**

The research presented in this thesis “Organizational Justice and Health: Contextual Determinants and Psychobiological Consequences” aimed to investigate the associations between organizational justice and several aspects of employee health and biological functioning. Organizational justice has been identified as an independent occupational stressor, and pertains to the perceived fairness at the workplace, which involves aspects like fairness of distribution of outcomes like salary, benefits and rewards, fairness of decision-making processes, and fairness experienced in interpersonal interactions. This thesis presents the development and validation of a German organizational justice scale and presents data showing that organizational justice is related to various aspects of subjective health and well-being. Furthermore, the research in this thesis investigated the relation of organizational justice with other job stress conceptualizations, investigated biopsychosocial pathways that may link organizational justice to health, and presents data showing that organizational justice may affect occupational groups (i.e., blue- vs. white-collar workers) differently.

Following a general introduction (Chapter 1), Chapter 2 of this thesis presents the validation of a German 11-item organizational justice questionnaire that aims to measure two aspects organizational justice, i.e., “procedural justice” (the fairness of the decision making process) and “interactional justice” (fairness in interpersonal interactions). The items for this questionnaire were adapted from Moorman’s organizational justice questionnaire. It was tested if this organizational justice scale is associated with poor self-rated health. The results showed a robust internal consistency and the expected 2-factor structure yielding a procedural and interactional subscale. Further, organizational justice as well as procedural and interactional justice proved to be strong predictors of poor self-rated health. This German organizational justice questionnaire thus seems to be a valid and useful tool for observational and intervention studies in occupational settings.

Research has identified work-related stress and its potential mental health-related sequelae, i.e., depression and burnout, as risk factors for tinnitus. The purpose of Chapter 3 therefore was to determine the relationship of organizational justice with tinnitus, and to examine depression and burnout as potential mediators. The results confirmed that organizational justice was inversely related to tinnitus, and mediation analyses demonstrated that this association was partly accounted for by individual differences in depressive symptoms and, in particular, burnout. It was proposed that tinnitus might be reduced partly through promotion of organizational justice and burnout preventions.

Musculoskeletal pain, a main source work absenteeism, has been found to co-occur with psychosocial job stress. However, it was elusive which aspects of job stress show the strongest association with musculoskeletal symptoms. In addition, this association might be different for various occupation types. Chapter 4 aimed to examine independent and combined associations of organizational justice, the effort-reward-imbalance model, and the job-demand-control model with musculoskeletal pain, and analysed this data separately for white- and blue-collar workers. It was hypothesized that different stressors may drive the association of job stress with musculoskeletal symptoms for white- and blue-collar workers. Based on the existing literature and theoretical considerations, it was thought that organizational justice and effort-reward-imbalance would be the strongest determinants for musculoskeletal symptoms for white-collar workers, while for blue-collar worker effort-reward-imbalance and job-demand-control were predicted to show the strongest associations. In addition, the synergetic effects of the three job stress conceptualizations were explored. In line with predictions, organizational justice and effort-reward-imbalance emerged as independent correlates with musculoskeletal symptoms in white-collar worker. In blue-collar workers, all three models robustly predicted musculoskeletal symptoms, but after mutual adjustments, effort-reward-imbalance and job-demand-control emerged as the strongest correlates. Synergetic effects of the three job stress concepts were also found in both occupational groups.

Perceived injustice at work predicts coronary heart disease and vagal dysregulation represents a potential psychobiological pathway. The aim of Chapter 5 was to examine associations of organizational justice with heart rate variability. Based on theoretical considerations, it was predicted that the association is more pronounced among white-collar than among blue-collar workers. Results revealed that both dimensions of organizational justice (i.e., interactional and procedural) were associated with reduced heart rate variability in white-collar workers, but that this association was virtually absent in blue-collar workers.

Results identified cardiac vagal dysregulation as a possible pathway linking organizational justice to cardiovascular health and revealed the physiological impact of organizational justice to vary between white-collar and blue-collar workers.

Chapter 6 focused on impaired regulation of immunological and inflammatory pathways as potential mechanisms linking organizational injustice to poor health. Specifically, the association of organizational justice with leukocyte glucocorticoid sensitivity was examined. Glucocorticoid sensitivity was hypothesized to be attenuated in individuals perceiving lower organizational justice, as compared to those perceiving higher justice at work. This hypothesis was confirmed. These findings identified a novel biological pathway by which organizational justice may affect health.

The overall conclusion of the presented research was that low organizational justice is independently associated with occupational health risk. Physiological stress response pathways appear to – at least in part – transmit the ill-health effects. These health effects appeared strongest for white-collar workers.

The discussion of this thesis addresses a number of challenges and opportunities. For example, consensus on a standardized organizational justice questionnaire would be advantageous to compare results across studies and countries. Conducting intervention studies would be an important next step for organizational justice research. Specifically, low justice might negatively affect health, but whether increased justice could promote health still needs to be demonstrated. In addition, further integrating biology, including neuroscience, is likely to provide utilizable knowledge about justice representations and judgments and their impact on health.