

WORK ENVIRONMENT AND WELL-BEING OF ACADEMIC FACULTY IN CZECH UNIVERSITIES: A PILOT STUDY

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Abstract

This article addresses the relationship between the work environment and the well-being of academic faculties in public Czech universities. It presents findings from a pilot study conducted at a Faculty of Arts at a major Czech university. The aims of the study were to describe the Faculty's work environment and to examine the impact of specific work environment variables on the well-being of academic employees. In total, 236 academics participated in the study. The results showed relatively high job satisfaction and high work engagement at all academic levels. The Faculty's organizational climate (measured using the Organizational Climate Measure; Patterson, Patterson, West, Shackleton, Dawson, Lanthorn, Mailis & Wallace, 2005) was defined by high autonomy and involvement in decision making, as well as relatively low pressure to produce. The Faculty's psychosocial work environment (measured using the Copenhagen Psychosocial Questionnaire II; Kristensen, Hannerz, Høgh & Borg, 2005) was defined by a strong social community and social support. Based on these findings, the authors suggest that the Faculty's work environment corresponds to the Humboldtian type of governance, defined by academic self-rule and a culture of collegiality, and they compare this type of governance with the market governance prevalent in Anglo-American contexts. The study contributes to the recent debates about national differences in academic governance by discussing how specific aspects of Humboldtian and market governance may contribute to well-being in academia.

Keywords

work environment, universities, organizational climate, job satisfaction, academic governance

Introduction

Over the past decade, organizational researchers have paid increasing attention to the quality of the work environment in universities and its impact on the well-being of the academic faculty (e.g., Bentley, Coates, Dobson, Goedegebuure & Meek, 2013; Houston, Meyer & Paewai, 2006; Fredman & Doughney, 2012; Winefield, Gillespie, Stough, Dua, Hapuarachchi & Boyd, 2003; Shin & Jung, 2013; Schulz, 2013). This surge of interest has been commonly linked to the ‘rise of the neoliberal university’ (Davies, Gottsche & Bansel, 2006) in Anglo-American countries, i.e., the new form of academic governance characterized by the neoliberalization of higher education. The concept of neoliberalization generally refers to the transformation of Western universities from institutions producing a public good to institutions directed by the values of entrepreneurialism and profit-making (Thornton, 2004). A number of studies have indicated that the neoliberalization of universities has had detrimental effects on employee relations and well-being, including increases in levels of occupational stress and in the incidence of hostile workplace behaviours (e.g., Thornton, 2004; Tytherleigh, Webb, Cooper & Ricketts, 2005; Twale & Luca, 2008; Shin & Jung, 2013; Zabrodska, Linnell, Laws & Davies, 2011). Such research, however, has generally been limited to market-driven economies in which neoliberalism has become the dominant form of academic governance, particularly in the UK, the US, Canada, Australia, and New Zealand. In contrast, the academic work environments in countries with different forms of academic governance, such as the Czech Republic and other Central Eastern European (CEE) countries, have rarely been considered.

We suggest that due to the specific historical development of the Czech Republic, research into work environments in Czech universities may provide an important contribution to global debates about national differences in university governance and their impact on the well-being of academics (see Bentley et al., 2013; Shin & Jung, 2013). This is because Czech universities offer a distinctive mix of academic governance styles, differing in many respects from the market governance prevalent in Anglo-American¹ contexts. As Shin and Jung (2013) discuss, three major types of academic governance

¹ Throughout the study, we use the term ‘Anglo-American’ to refer to the developed English-speaking countries, including the UK, the U.S., Canada, Australia, and New Zealand. While this term may lead to over-generalizations, we use it to reflect the relatively coherent findings in these countries about the deterioration of work environments in universities and the attribution of its causes to the marketization of universities.

have been identified: a market (neoliberal) model, an academic oligarchy, and a state-controlled model (see also Dobbins & Knill, 2009; Pesik & Gounko, 2011). After the fall of communism in 1989, Czech universities gained considerable independence as a counter-reaction to the previous communist regime, which was characterized by extreme state control of universities (a state-controlled model). In the past two decades, the Czech university system of governance has been referred to as an academic oligarchy or the ‘Humboldtian model of academic self-rule’ (Dobbins & Knill, 2009). This type of governance is characterized by strong academic autonomy, with relatively low influence from the state and other external stakeholders, such as businesses. In this respect, an academic oligarchy can be viewed as the opposite of neoliberal governance, in which academics have relatively less autonomy and academic jobs are to a large extent determined by the market and external stakeholders (Shin & Jung, 2013). However, due to recent pressures toward neoliberalization in European higher education, the dominance of the academic oligarchy in Czech universities has been disrupted by discourses of marketization. Thus, the current situation in Czech public universities has been described as a unique mix of the Humboldtian model of academic self-rule and emerging elements of market orientation (Pesik & Gounko, 2011). The questions then arise: how can this unique mix be described in terms of work environment variables, and what is its impact on the well-being of the academic faculty?

In this paper, we begin to address this question by examining the relationship between the academic work environment and the well-being of academics in the context of the changing Czech university sector. Specifically, we report findings from a pilot study of the work environment at a Faculty of Arts at a major public Czech university (hereafter called ‘the Faculty’). This pilot study is a preliminary part of a larger project, ‘Work Environment Quality and Employee Well-being in Public Higher Education’ (2014–2016), which will examine the relationship between well-being in academia and work environments in Czech public universities. While there have been numerous debates about the state of Czech public universities (e.g., Hampl, 2012; Matějů, 2009), these debates have tended to emphasize economic and political arguments. In contrast, empirical analyses from the perspective of organizational psychology have been generally absent (for an exception, see Matějů & Fischer, 2009). Our project aims to address this gap by providing a complex analysis of work conditions in Czech universities, including basic work environment variables such as organizational climate, job demands, work organization, interpersonal relationships and leadership, and conditions related to the individual-work interface (see Kristensen et al., 2005).

In the following section, we define our conceptual framework, particularly the concepts of employee well-being and work environment, and apply these

concepts to the context of academia. We then describe the research aims and methodology of the study and report the main findings. Specifically, we present findings related to the level of well-being of academics at the Faculty, describe the Faculty's organizational climate and psychosocial work environment, and then identify the main work environment predictors of well-being of academics in the Faculty. We conclude by discussing our findings in the context of academic governance and by considering the implications of the study for both research and practice.

Employee well-being in academia: The conceptual framework

Psychological well-being is typically conceptualized as having three dimensions: positive cognitive evaluation of various areas of life, relative prevalence of positive emotions, and relative absence of negative emotions (Diener, Suh & Lucas, 1999). In the context of an organization, these three dimensions of well-being involve job satisfaction, job engagement, and mental health (Danna & Griffin, 1999). Drawing on this theoretical framework, the current study conceptualized employee well-being as consisting of three dimensions: *job satisfaction* (i.e., cognitive evaluations of one's work), *work engagement* (i.e., positive emotions related to work, namely vigour, dedication, and absorption) (Schaufeli, Bakker & Salanova, 2006), and *absence of negative emotions related to stress and burn-out*. As described in the Methodology section, we used selected scales from the Copenhagen Psychosocial Questionnaire (Kristensen et al., 2005) and the Utrecht Work Engagement Scale (Schaufelli et al., 2006) to measure these variables.

Organizational research provides evidence that employee well-being is strongly influenced by the quality of the work environment, including leadership practices, appropriate workload, and the quality of relationships with co-workers (e.g., Deci & Ryan, 2008; Kuoppala, Lamminpää, Liira & Vainio, 2008; Stansfeld & Candy, 2006). Employee well-being has been found to correlate positively with a high level of employee participation and democratic management (Knudsen, Bucks & Lindt, 2011), with job autonomy, and with informal support from supervisors and colleagues (Thompson & Prottas, 2005). In contrast, negative correlations have been found with excessively difficult work tasks, lack of goal clarity, and expectations of organizational change (Vartia, 2001). In the university sector specifically, studies have mostly focused on the negative impact of managerial reforms on the well-being of academics due to the neoliberalization of universities in Anglo-American contexts. These studies have consistently indicated that neoliberal reforms have reduced job satisfaction and increased job stress among academics (Shin & Jung, 2013). Specifically, the well-being of academic

faculties has been found to be negatively affected by reduced academic autonomy (Fredman & Doughney, 2012), increased workloads, and high job insecurity (Gillespie, Walsh, Winefield, Dua & Stough, 2001). Studies have also pointed to increased role conflict and role stress under managerial reforms (Schulz, 2013).

In the current study, we conceptualized the academic work environment as a multidimensional construct that involved a relatively broad number of organizational variables. This wide range of variables was employed because the aim of the study was not only to examine predictors of the well-being of academic employees, but also to provide a complex description of the work environment at the Faculty. On the general level, we measured two major work environment domains: employee perceptions of the *organizational climate* (Patterson et al., 2005) and direct employee experience with various aspects of the *psychosocial work environment* (Kristensen et al., 2005). The first domain, the organizational climate, is defined as shared employee perceptions of organizational practices and procedures (Patterson et al., 2005). Rather than referring to individual employee work experiences, the organizational climate reflects shared employee perceptions of how things are usually done in the organization. The concept of organizational climate allows the comparison of organizations in terms of various climates, such as climates for innovation, pressure to produce, or autonomy (ibid). We used this concept to assess the extent to which the Faculty's climate involved aspects of Humboldtian or market-oriented governance. The second domain, the psychosocial work environment, refers to the direct personal experiences of individual employees with their organization. In contrast to the organizational climate, the psychosocial work environment reflects the specificity of individual workplace experiences rather than shared organizational practices. Drawing on the framework proposed by Kristensen et al. (2005), we defined the psychosocial work environment as involving four main dimensions: job demands, work organization, interpersonal relations and leadership, and the work-individual interface. The details of all the measured dimensions are described in the Methodology section.

Aims of the study

This pilot study is a questionnaire correlation study conducted at a selected Faculty of Arts at a major Czech public university. The study is a preliminary part of a full-scale comparative research project that will examine work environment quality and its impact on the well-being of academic faculty. We specifically selected a Faculty of Arts for the study, as we assumed that a human sciences-oriented institution would be less affected by the emerging

trends of neoliberalization than natural or technical sciences-oriented institutions, and that it would consequently provide deeper insights into the specificity of Humboldtian governance.² The data were collected at the Faculty in the Spring Semester of 2014. Anticipating that the research participants would be concerned about their anonymity, we conducted the study via an electronic questionnaire which protects the anonymity of the participants and simultaneously enables them to be open in their responses (Hewson, Laurent & Vogel, 1996). Before administering the questionnaire, the authors sought permission from the senior management of the Faculty to conduct the research.³ After obtaining permission, relevant information about the research with a link to our web-based questionnaire was provided via university e-mail to all academic employees, including PhD students involved in teaching and research. Non-academic employees were not included in the study.

Sample

In total, 236 academic employees completed the questionnaire. A slightly higher number of women participated in the study (58.5%). Women were more represented in lower-level positions (e.g., 66.7% of the participating women were PhD students), while men dominated the higher-level positions (of the associate professors and professors, 66.7% were men). All age groups were represented, spanning from 25 to 79 years of age. The highest-represented age group were younger employees, particularly 30–39 years (33.9%) and 25–29 years (28.8%), followed by 40–49 years (15.7%). In terms of academic positions, 40.2% of participants were doctoral and postdoctoral students, 37.2% were assistant professors⁴, and 18.2% were associate professors or professors. The majority of the participants (79.1%) reported that their job at the Faculty was their sole or primary source of income. Of all the participants, 18.5% identified themselves as being in leadership positions, as leaders of the Faculty, of the department, or of research teams.

² To our knowledge, no systematic comparison of different levels of marketization across scientific disciplines has yet been conducted in the Czech Republic. However, a number of research workshops concerning scientific practices in the Czech Republic (e.g., organized by Gender & Science) have indicated that natural and technical sciences evince a stronger tendency to adopt market-oriented reforms than humanities and social sciences, including practices such as entrepreneurship and performance-based management.

³ The ethics approval for the study was granted in 2013 by the Institutional Board of the Institute of Psychology, Czech Academy of Sciences, prior to the project's start date.

⁴ 'Senior lecturers' in the British context.

Measures

We designed our questionnaire based on previously established findings concerning work environments and well-being in academia (e.g., Fredman & Doughney, 2012; Winefield et al. 2003; Shin & Jung, 2013; Schulz, 2013). Questions concerned the respondents' demographic characteristics (age, gender, etc.) and employment variables (formal position, type of contract, length of employment, etc.), scales measuring work environment variables, and scales measuring three aspects of employee well-being.

Employee well-being was defined as consisting of job satisfaction, work engagement, and relative absence of stress and burn-out (see the Conceptual Framework section). To measure job satisfaction, we used the 'job satisfaction' scale from the Copenhagen Psychosocial Questionnaire II (COPSOQ II; Kristensen et al., 2005). This scale measures both general job satisfaction (through the question: 'How pleased are you with your job as a whole, with everything taken into consideration?') as well as satisfaction with specific aspects of the job, such as working conditions and work prospects. We also added a question addressing satisfaction with salary, as a previous national survey among academics indicated its importance (Matějů & Fisher, 2009). To measure employee work engagement, we used the Utrecht Work Engagement Scale (UWES, Schaufeli et al., 2006) which approaches work engagement as playing a positive role in work-related well-being, characterized by vigour, dedication, and absorption (Schaufeli & Bakker, 2004). Finally, to measure perceived stress and burn-out, we used 'stress' and 'burn-out' scales from COPSOQ II.

To measure the Faculty organizational climate, we used selected scales from the Organizational Climate Measure (OCM, Patterson et al., 2005). Seven scales were selected to examine the extent to which the Faculty climate corresponded to the Humboldtian type of governance or the market-oriented model. These scales included: Autonomy (scope of influence academics have over their work), Involvement (participation of academics in governance and decision-making), Formalization (the Faculty's concern with formal rules and procedures), Flexibility and Innovation (the Faculty's orientation towards change and innovation), Outward Focus (the Faculty's orientation towards external and market demands), Performance Feedback (the Faculty's emphasis on the measurement of academic job performance), and Pressure to Produce (pressure on academics to meet targets). Based on a literature review (e.g., Pesik & Gounko, 2011; Shin & Jung, 2013), we defined Autonomy and Involvement as features of Humboldtian governance, while Formalization, Flexibility and Innovation, Outward Focus, Performance Feedback, and Pressure to Produce were defined as market-oriented features. In other words, we presumed that a typical Humboldtian climate would include high scores

on Autonomy and Involvement and low scores on Formalization, Flexibility and Innovation, Outward Focus, Performance Feedback, and Pressure to Produce. We presumed that a typical market-oriented climate would be defined by opposite scores.

To measure respondents' direct experiences with psychosocial work environments, we used selected scales from COPSOQ II. This questionnaire is a comprehensive instrument that incorporates most of the crucial work environment variables as defined across major organizational theories (Kristensen et al., 2005). In order to gain a complex description of the Faculty work environment, we selected a broad number of variables from COPSOQ II divided into four major dimensions: Demand scales (Quantitative Demands), Work Organization scales (Influence, Possibilities for Development, Meaning of Work, Commitment to the Workplace), Interpersonal Relations and Leadership scales (Rewards, Role Clarity, Role Conflict, Quality of Leadership, Social Support from Supervisor, Social Support from Colleagues, Social Community at Work), and Work-Individual Interface scales (Job Insecurity, Work-Family Conflict). As noted above, COPSOQ II differs from OCM in that it examines individual employee experiences rather than shared organizational practices. Thus, for instance, the difference between Quantitative Demands measured using COPSOQ II and Pressure to Produce measured using OCM is that the former focuses solely on individual experiences of job demand (how demanding is my own job), while the latter focuses on the organizational climate shared by all employees (how much pressure this organization generally puts on academics to produce).

All of the questionnaires were translated into Czech using a standard back translation procedure. The questionnaires were translated from English to Czech by an independent translator, revised by the authors of the study, and then back-translated by another translator to verify the accuracy of the translation. Subsequently, the authors evaluated the quality of the back-translation (i.e., the similarity between both English versions) and made minor amendments.

Analysis

We used SPSS 21.0 software to analyse the questionnaire data. Basic findings (sample descriptions, including job-related well-being and work environment aspects) were obtained using descriptive statistics. Correlational analysis (Spearman's correlation coefficient) and regression analyses were used to assess the relationships between various aspects of work environment quality and employee well-being.

Results

Employee Well-being

We measured three aspects of employee well-being: job satisfaction, work engagement, and absence of stress and burn-out. In terms of job satisfaction, the majority of the respondents (87.3%) reported that they were satisfied or very satisfied with their job. Interestingly, respondents reported that they were more satisfied with their job in general than with specific aspects of the job. Thus, while 87.3% of the respondents reported that they were satisfied with their job when all its aspects were taken into consideration, 26.4–38.9% of the respondents felt dissatisfied with particular aspects of the job. As shown in Table 1, respondents were most often dissatisfied with their pay (38.9%) and work prospects (33.2%).

Table 1
Job Satisfaction

Satisfaction With...	Satisfied	Dissatisfied
Job as a whole, everything taken into consideration	87.3%	12.7%
Work conditions	73.6%	26.4%
Job content	71.6%	28.4%
Work prospects	66.8%	33.2%
Pay	61.1%	38.9%

Note: The category 'satisfied' combines the responses of 'very satisfied' and 'satisfied'. The category 'dissatisfied' combines the responses of 'dissatisfied' and 'very dissatisfied'.

The difference between general and specific job satisfaction in our sample indicates that the respondents may be predominantly motivated not by external rewards related to their job but by its intrinsic characteristics. In other words, the difference suggests that the respondents may be more motivated by their interest in the job itself (i.e., intrinsic motivation) than by the material benefits of the job, such as pay or promotion. This conclusion can be supported by the results of the Work Engagement Scale (UWES; for details, see the Methodology section), which measured respondents' experiences of positive emotions related to intrinsic motivation, as manifested through vigour, dedication, and absorption in work. As shown in Figure 1, respondents scored relatively high on all three aspects of work engagement, particularly on dedication and absorption. The relatively high scores on dedication and absorption indicate that the majority of the respondents regularly experienced strong identification with the job (dedication) and felt immersed in it (absorption).

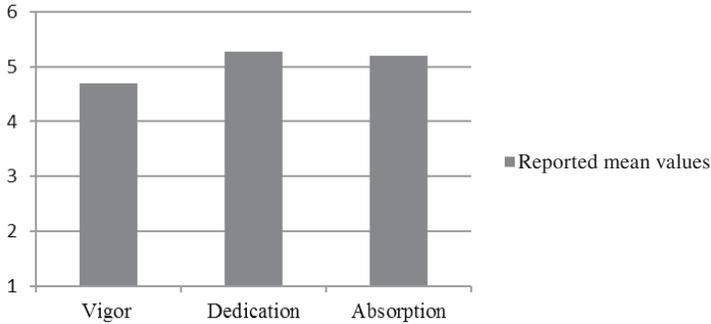


Figure 1

Frequency of emotions related to work engagement

(As reported on a scale of 1 to 7: (1) Never, (2) Almost never, (3) Rarely, (4) Sometimes, (5) Often, (6) Very often, (7) Always)

Similarly, most of the participants experienced various symptoms related to stress or burn-out, such as exhaustion or tension, relatively rarely. However, some of the respondents (between 14–22% of the sample) experienced negative emotions related to stress or burn-out regularly (see Table 2).

Table 2

Stress and Burn-Out

Experience of ...	Regularly	Occasionally	Rarely
Emotions related to burn-out	14.9%	34.9%	50.2%
Emotions related to stress	20.8%	38.6%	40.7%

The results suggest that the respondents' well-being within our sample was relatively high. The respondents reported that they were satisfied with their jobs in general, although they were less satisfied with some aspects of their jobs. They reported high levels of work engagement, and most of them reported relatively low levels of negative emotions related to stress and burn-out.

Perception of organizational climate

Organizational climate refers to the shared employee perceptions of organizational processes and practices (Patterson et al., 2005). The results of the OCM showed that the climate dimensions in which respondents reported the highest estimates were Autonomy and Involvement (see Figure 2). This means that the respondents perceived the Faculty climate as providing them with a large degree of freedom in defining their work and as including them in decision-making processes. For instance, the majority of the respondents agreed with statements such as ‘Management let academics make their own decision much of the time’ (87.4%) and ‘At this workplace, information is widely shared’ (71.4%). High scores on the Autonomy scale also mean that the respondents mostly disagreed with statements such as ‘People at the top tightly control the work of those below them’. These results can also be interpreted as an indication of democratic leadership as opposed to authoritarian management. It is necessary to note, however, that questions regarding the management referred to the respondents’ direct managers (i.e., mostly Department Chairs⁵) rather than to management at the Faculty level. The respondents’ perceptions of the senior management at the Faculty level may therefore differ.

The lowest mean scores, by contrast, were reported on the scales Pressure to Produce and Performance Feedback. The relatively low score on the Pressure to Produce scale indicates that respondents perceived their workplaces as not particularly demanding with respect to workload and pressure on academics to meet targets. For instance, 77% of the respondents agreed with the statement ‘In general, people’s workloads are not particularly demanding’. The performance feedback scale refers to the extent to which the organization emphasizes the measurement of employee performance and provides employees with feedback. The relatively low scores suggest that the respondents felt that academics in general received relatively little feedback on their work and that performance measures were not regularly applied.

⁵ ‘Heads of Department’ in the British context.

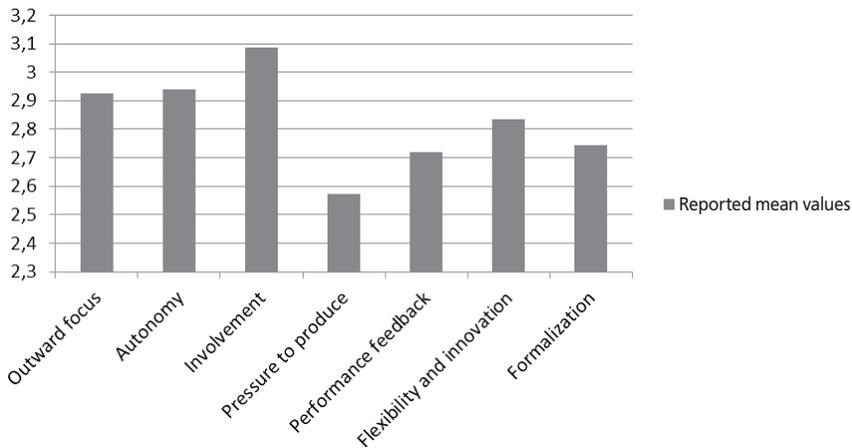


Figure 2

Employee perceptions of organizational climate

(As reported on a scale of 1 to 4: 1 (Definitely false), 2 (Mostly false), 3 (Mostly true), 4 (Definitely true))

Perceived psychosocial work environment

In contrast to general perceptions of the organizational climate, the psychosocial work environment (as measured by COPSOQ II) refers to the individual experiences of the respondents with their workplace. As shown in Figure 3, the respondents reported a relatively small degree of role conflicts and high role clarity. This indicates that respondents felt their job objectives and areas of responsibility were clearly defined, with few conflicts among the various aspects of their jobs. The respondents also reported relatively few quantitative demands, suggesting that they did not feel particularly pressured by their work and had adequate time to complete their work tasks, which was consistent with their perception of the organizational climate. At the same time, respondents reported a positive social environment at work, as indicated by relatively high scores on scales of social community, support from supervisors, and support from colleagues. The majority of the respondents reported that there was a good atmosphere between them and their colleagues (79.4%), and that they received support to a large extent both from their direct superiors (72.1%) and from their colleagues (69.5%). The respondents also reported a high commitment to their workplace, with 75.9% of the respondents reporting that their workplace was very important to them. In contrast, relatively lower numbers of the respondents reported negative perceptions of their workplace in terms of work-individual interface, such as job insecurity and work-family conflict (see Table 4).

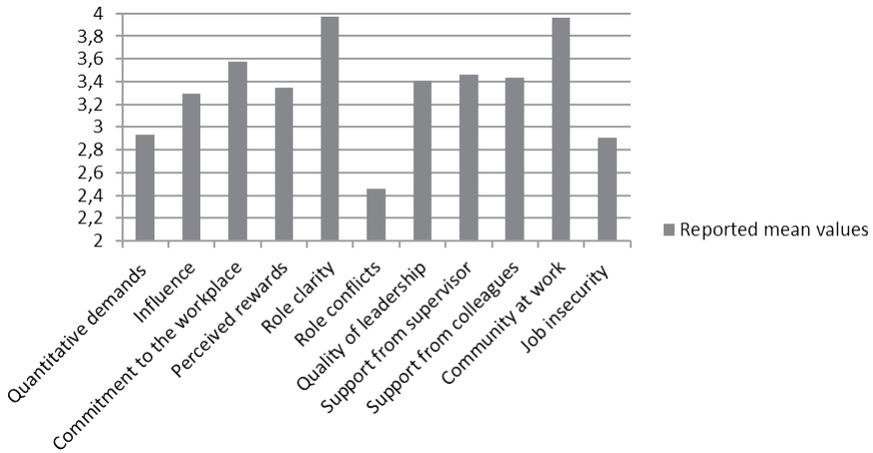


Figure 3
Perceived psychosocial work environment
 (As reported on a scale of 1 to 5: Experiencing ... 1 (To a very small extent), 2 (To a small extent), 3 (Somewhat), 4 (To a large extent), 5 (To a very large extent))

Table 4
Psychosocial Work Environment (selected items)

Dimension	Type of Experience (Corresponding scale)	To a (very) Large Degree	Somewhat	To a (very) Small Degree
Interpersonal relations and leadership	Experiencing good relationships with colleagues (Social Community)	79.4%	16.2%	4.4%
	Obtaining social support from a supervisor (Social Support)	72.1%	17.6%	10.3%
	Perceiving leadership as being of high quality (Leadership)	48.7%	35.5%	15.8%
	Obtaining social support from colleagues (Social Support)	69.5%	22.3%	8.2%
	Being respected at work (Rewards)	60.7%	29.1%	10.2%
Work organization	Experiencing the workplace as very important (Commitment to the Workplace)	75.9%	19.8%	4.3%
Work-individual interface	Being afraid of losing one's job (Job Insecurity)	18.9%	33%	47.9%
	Experiencing work as negatively impacting personal life (Work-Family Conflict)	13.6%	34%	52.3%

Organizational climate and well-being of academic faculty

In order to improve the work conditions of academic employees, it is crucial to examine the relationship between employee experiences with their work environment and employee well-being. In the current study, job satisfaction significantly correlated with all of the measured dimensions of organizational climate, except Pressure to Produce and Formalization. The dimensions most highly correlated with job satisfaction were Involvement, Performance Feedback, and Flexibility and Innovation (see Table 5). The respondents who were more satisfied with their work tended to perceive their workplaces as including the academics in decision-making processes, providing them with feedback about the quality of their work, and encouraging and supporting new ideas (and vice versa).

Considering other aspects of employee well-being (see Table 5), the work engagement of the respondents correlated most strongly with the scales of Outward Focus, Autonomy, Involvement, and Flexibility and Innovation. These results show that motivated employees tended to perceive their workplaces as supporting employees in applying their expertise, providing employees with a higher degree of freedom, involving them in decision-making, and supporting new ideas. In contrast, symptoms of stress and burn-out were negatively correlated with Involvement and positively correlated with Pressures to Produce. This suggested that the respondents who experienced higher levels of stress and burn-out perceived their workplaces as not involving the academics in decision-making and putting them under pressure to meet targets. It is interesting to note that Pressure to Produce, one of the key aspects of the market-oriented model, was significantly correlated only with these two negative aspects of employee well-being.

Table 5

*Employee Perception of Organizational Climate and Well-being**Note: NS – not significant; * 5% level of significance; ** 1% level of significance*

	Job satisfaction	Motivation (Vigour)	Motivation (Dedication)	Motivation (Absorption)	Perceived stress	Symptoms of burn-out
Focus on quality	,349**	NS	,155*	NS	NS	NS
Outward focus	,357**	,214**	,260**	NS	-,177**	NS
Perceived autonomy	,370**	,176**	,135*	NS	-,204**	NS
Employees' involvement	,546**	,207**	,157*	NS	-,274**	-,148*
Pressure to produce	NS	NS	NS	NS	,148*	,214**
Performance feedback	,416**	NS	NS	NS	-,194**	NS
Flexibility and innovation	,521**	,252**	,271**	,152*	-,212**	NS
Formalization	NS	NS	NS	NS	NS	NS

Psychosocial work environment and well-being of academic faculty

In comparison with the shared perceptions of organizational climate, respondents' direct experience with their work environment was correlated more strongly with all of the measured aspects of employee well-being. Job satisfaction was significantly correlated with all of the aspects of respondents' experiences with their work environment, except Quantitative Demands. We observed a very strong correlation between job satisfaction and Commitment to the Workplace and Rewards and Quality of Leadership. Other social aspects of the workplace, such as Social Community at Work and Social Support from Colleagues, were also strongly correlated with job satisfaction. Interestingly, Quantitative Demands showed a significant negative correlation with all of the dimensions of work motivation. Stress and bullying were also significantly correlated with all of the aspects of employee work experiences, although with emphasis on different variables. Most significant correlates of stress and burn-out were Work-Family Conflict, Role Conflicts, Quantitative Demands, and low Influence (over one's work). As with other aspects of well-being, stress and burn-out were significantly correlated with perceived social aspects of the work environment, particularly Social Support and Quality of Leadership (see Table 6).

Table 6

*Employee Experiences of Work Environment and Well-being**Note: NS – not significant; * 5% level of significance; ** 1% level of significance*

	Job satisfaction	Motivation (Vigour)	Motivation (Dedication)	Motivation (Absorption)	Perceived stress	Symptoms of burn-out
Quantitative demands	NS	-,272**	-,265**	-,145*	,344**	,342**
Influence	,426**	,263**	,232**	,190**	-,374**	-,345**
Commitment to the workplace	,645**	,470**	,441**	,326**	-,237**	-,163*
Perceived rewards	,763**	,243**	,253**	NS	-,279**	-,175**
Role clarity	,430**	,320**	,321**	,230**	-,285**	-,165*
Role conflicts	-,336**	NS	-,157*	NS	,344**	,275**
Quality of leadership	,569**	,222**	,204**	NS	-,291**	-,138*
Support from supervisor	,431**	,302**	,205**	,157*	-,279**	-,134*
Support from colleagues	,436**	,273**	,200**	,189**	-,238**	NS
Community at work	,449**	,228**	,164*	,148*	-,279**	-,166*
Job insecurity	-,257**	-,163*	NS	NS	,277**	,306**
Work-family conflict	-,270**	-,228**	-,181**	NS	,494**	,453**

Perceived work environment as a predictor of employee well-being

Most of the measured aspects of perceived work environment showed significant correlations with employee well-being. Therefore, we conducted a regression analysis to estimate the explanatory power of the specific work environment variables in regard to respondent well-being. The results showed that direct employee experience with the psychosocial work environment measured by COPSOQ II explained almost twice as much variance in job satisfaction as the perception of organizational climate measured by OCM. In both questionnaires, most of the variance in job satisfaction was explained by relatively few variables.

Regarding the perception of organizational climate, job satisfaction was associated positively with Autonomy, Involvement, Flexibility and Innovation, and Performance Feedback, and negatively with Pressure to Produce ($F(5, 226)=27,587, p<.001, R=.616$, which explained 36.5% of variance in job

satisfaction). Adding other OCM variables did not significantly increase the explanatory power of the model.

Regarding the direct experience with the psychosocial work environment, job satisfaction was associated positively with Rewards, Commitment to the Workplace, and Quality of Leadership, and negatively with Role Conflicts ($F(4, 222)=97,284, p<.001, R=.798$, which explained 63% of variance in job satisfaction). Adding other COPSOQ variables did not significantly increase the explanatory power of the model.

Some aspects of direct experience with the work environment also predicted a significant portion of variance in burn-out and stress (which may be regarded as an opposite of job satisfaction). Burn-out was associated positively with Work-Family Conflict, Job Insecurity, perceived lack of Influence, and Quantitative Demands ($F(4, 228)=24,861, p<.001, R=.551$, which explained 29.1% of variance in burn-out).

Discussion

Research into academic governance indicates that the Czech public university sector is characterised by a unique mix of governance based on an academic oligarchy and an emerging market orientation (Dobbins & Knill, 2009; Pesik & Gouanko, 2011). Hence, it can be assumed that universities and faculties in the Czech Republic differ in the extent to which their governance corresponds to the previously dominant model of academic self-rule and to what extent they incorporate market-driven features. Our findings suggested that, consistent with our expectations, the organizational climate at the selected Faculty corresponded to the model of Humboldtian governance. Specifically, the Faculty's climate was characterized by a high level of autonomy and involvement of academics in decision-making processes, which are considered to be the distinctive features of academic self-rule (Dobbins & Knill, 2009; Shin & Jung, 2013). While the OCM does not include measures of social support, the results of the COPSOQ II showed that the respondents reported strong social community and support from their direct supervisors as well as colleagues. Overall, the combination of a high level of autonomy, participation, and strong social community implied that the Faculty's climate corresponded to what has been called the classical model of a 'collegial university' (Schulz, 2013). This model has been described as the 'idyllic and relatively protected' (Schulz, 2013, p. 465) form of academic governance, which persists in some European countries, but which has been disrupted in market-oriented education in Anglo-American contexts.

In terms of employee well-being, we found that the respondents in our sample scored high on job satisfaction. A majority of the respondents (87.3%)

reported being very satisfied or satisfied with their jobs as a whole, while only 12.7% were dissatisfied. These findings are particularly interesting in comparison with international studies conducted in countries in which the market-oriented reforms of higher education have been most pronounced, such as the UK and Australia. For instance, in a recent study among Australian academics, Fredman and Doughney (2012) found that only 30% of their respondents reported being satisfied with their job, while 42% (or 59%, depending on different indicators) were dissatisfied. Similarly, a large comparative study in 19 higher education systems⁶ conducted by Shin and Jung (2013) showed that the lowest job satisfaction was reported by academics in countries with strong performance-based managerial systems (such as the UK and Australia). This study also proposed a typology of higher education systems based on job satisfaction and job stress and classified the UK and Australia as countries with low satisfaction and high stress. In contrast, European countries with strong professoriate-oriented systems were classified as high satisfaction and low stress, which also corresponds to our findings.

While respondents in our sample reported high general job satisfaction, they were less satisfied with specific aspects of the job. A plausible interpretation is that respondents were primarily motivated by the intrinsic characteristics of the job. Their lower satisfaction with external aspects of the job, such as pay, therefore did not affect their general job satisfaction. The importance of intrinsic motivation for academic workers has also been identified in Anglo-American contexts. These studies typically quote deteriorating work environments, along with increased stress and health issues due to the neoliberalization of universities (Thorton, 2004; Tytherleigh et al., 2005; Winefield et al., 2003). However, these studies also indicate that academics can be relatively satisfied with their jobs despite these worsening conditions (Houston et al., 2006), due to their high intrinsic motivation (Shin & Jung, 2013). We suggest that the vital role of intrinsic motivation among academics also implies that academics can be more dissatisfied with external conditions, if these conditions collide with their intrinsic interest in the job (such as increased managerial control). This relationship between work environment, intrinsic motivation, and job satisfaction can be explained in the framework of self-determination theory (Gagné & Deci, 2005). Self-determination theory proposes that intrinsic motivation and, consequently, job satisfaction are supported by work climates that emphasize the autonomy of employees and the development of their competence. We found that the factors of the work

⁶ The Czech Republic was not included in the study.

environment which were in accord with these 'basic needs', namely employee autonomy, involvement, and lack of pressure to produce, explained a relatively large variation in job satisfaction.

The Humboldtian type of governance includes internal accountability (i.e., academics are accountable to each other rather than to external stakeholders, such as businesses) and a relatively high empowerment and social status for the academics, which has been contrasted with external accountability and reduced power of the academics in market-oriented models (Shin & Jung, 2013). Given these features, it is not surprising that Humboldtian governance is believed to have a positive impact on academic well-being, while market governance is believed to have the opposite effect (Bentley et al., 2013; Shin & Jung, 2013). This is consistent with our findings, which showed that job satisfaction in our sample was significantly correlated with distinctive features of academic self-rule, namely employee autonomy and involvement in decision-making. At the same time, job satisfaction showed negative correlations with pressure for academics to produce and meet targets, an aspect of organizational climate typically linked to market-oriented governance. Additionally, we found that a perceived lack of influence over the job and high quantitative demands were significantly correlated with employee burn-out. In these respects, our findings are consistent with studies showing that 'academic freedom, shared governance, and faculty empowerment' are critical for job satisfaction in academia (Shin & Jung, 2013, p. 6).

On the other hand, job satisfaction in our sample also showed significant positive correlations with two aspects of organizational climate that we defined as features of market-oriented governance, namely with an emphasis on flexibility and innovation and with job performance feedback. This finding can be explained in the framework of the self-determination theory (Gagné & Deci, 2005). Specifically, in a climate supportive of employee autonomy, these variables may be perceived as supporting the development of employee competence and therefore positively impacting job satisfaction. For academics strongly dedicated to their jobs, performance feedback is vital to improve their competence, while organizational support for innovation allows them to further progress in their work. In contrast, in neoliberal governance characterized by reduced academic autonomy and high job insecurity, the same variables may reduce job satisfaction. For instance, various measures of job performance may reduce job satisfaction because academics perceive them as unjustified managerial control. Similarly, the emphasis on innovation may also have a detrimental impact on job satisfaction because it can be experienced as additional pressure (e.g., pressure to constantly adapt to changing conditions and demands). Thus, we would suggest that the impact of these two variables will differ based on the broader social context of academic governance, namely the extent of academic autonomy. An

autonomy-supporting climate therefore seems to be crucial in determining the impact of other aspects of organizational climate on employee well-being.

While the scope of this pilot study is limited due to its small and homogeneous sample, the study has several practical implications. In terms of organizational climate, the Faculty management's support of autonomy and of the participation of academics in Faculty affairs seems to be crucial for preserving the current levels of well-being of its academic employees. In addition, a stronger emphasis on job performance may be needed to provide the academics with feedback on their work and to further support their intrinsic motivation. In terms of the psychosocial work environment, academics in our sample reported a high quality environment in relation to the majority of the basic work environment variables, including a strong social community, good social support, good quality leadership, and high role clarity. However, almost half of the academics to some extent experienced job insecurity and work-family conflicts, which were found to significantly predict burn-out. Thus, from the perspective of university management, it could be useful to adopt measures to address these two issues. Measures reducing work-family conflict in academia could include job sharing, remote working, provision of on-site childcare, and a 'core hours' policy (scheduling all meetings within the core working hours of 10am and 4pm). Finally, approximately one quarter of the respondents reported being dissatisfied with their pay and work prospects. While it may be difficult to affect employee salaries, better work prospects can be addressed through a stronger emphasis on career development.

Conclusions, limitations, and future directions

This pilot study examined the relationship between the work environment and the well-being of academic employees in the context of changing university governance in the Czech Republic. By identifying specific work environment variables that positively and negatively affected the well-being of the academics at a selected Faculty, the study has contributed to recent debates about national differences in academic governance and its impact on academic well-being (e.g., Bentley et al., 2013; Shin & Jung, 2013). Specifically, we found that the well-being of the academic faculty was positively correlated with those work environment variables which can be linked to academic self-rule, namely autonomy, involvement in decision-making, low pressure to produce, and strong social community. In contrast, negative emotions related to stress and burn-out were associated with work environment features generally attributed to market governance, including a perceived lack of influence and high quantitative demands. At the same

time, two variables defined as an aspect of market governance, namely emphasis on performance measurement and on flexibility and innovation, were also positively related to academic job satisfaction. Based on these findings, we have suggested that the well-being of academic employees may increase with a stronger emphasis on some 'market' features of the work environment, but only if these features are implemented in the broader context of academic autonomy.

The study has several limitations. First, it employed a cross-sectional correlational design, which limits the possibility of causal interpretations of the relationships between the discussed aspects of work environments and employee well-being. Second, some sub-groups (particularly younger academics) were over-represented in our sample. The results might have been swayed in this direction as the size of our sample did not allow us to analyze differences between specific sub-groups of academics. Third, our findings were based on a small sample coming from one homogenous academic institution. To fully understand the impact of different forms of academic governance and related work environments on academic well-being, a large scale comparative study across different faculties and universities is needed.

The limitations of this pilot study simultaneously indicate areas for future research. In the full-scale study that stems from this pilot, we intend to conduct a representative comparison of types of governance across all major Czech public universities. We expect that the relationships between work environment and academic well-being will differ, based on the extent to which specific academic institutions incorporate academic self-rule and market-oriented governance. A larger and representative research sample will also allow us to conduct more detailed analyses regarding different sub-groups of academic employees. In particular, the analysis should involve differences in job satisfaction among sub-groups of employees based on variables such as age, position, and length of employment, which have been found to affect employee relations in Czech academia (Zabrodska & Kveton, 2013). Our findings also suggest that a more complex model of the relationship between work environments and employee well-being needs to be developed. In particular, such a model should clearly distinguish between general perceptions of organizational climate and individual employee experiences with their workplaces. It is also vital to take into account possible mediating factors, such as employee motivation or personality. Thus, for instance, future research could examine the mediating role of employee motivation in the relationship between organizational climate and job satisfaction. Finally, it is also important to incorporate measures of academic productivity into the research. While job satisfaction has been found to positively affect employee productivity, further research is needed to examine the relationship between these variables in Czech academia.

Acknowledgements

This work was supported by the Czech Science Foundation research grant ‘Work Environment Quality and Employee Well-being in Public Higher Education’ (Grant No. GA14-02098S), with the support of RVO 68081740.

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