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Author(s): Huhtala, Mari; Tolvanen, Asko; Mauno, Saija; Feldt, Taru

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**The Associations between Ethical Organizational Culture, Burnout and Engagement: A
Multilevel Study**

Huhtala, Mari^{1,3}
Corresponding Author

Tolvanen, Asko²

Mauno, Saija^{1,3}

Feldt, Taru¹

¹Department of Psychology, University of Jyväskylä, Finland

²Methodology Centre for Human Sciences, University of Jyväskylä, University of Jyväskylä,
Finland

³School of Social Sciences and Humanities, University of Tampere, Finland

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Abstract

Purpose – Ethical culture is a specific form of organizational culture (including values and systems that can promote ethical behavior), and as such a socially constructed phenomenon. However, no previous studies have investigated the degree to which employees' perceptions of their organization's ethical culture are shared within work units (departments), which was the first aim of this study. In addition, we studied the associations between ethical culture and occupational well-being (i.e., burnout and work engagement) at both the individual and work-unit levels. **Design/methodology/approach** – The questionnaire data was gathered from 2,146 respondents with various occupations in 245 different work units in one public sector organization. Ethical organizational culture was measured with the Corporate Ethical Virtues scale (CEV), including eight sub-dimensions. **Findings** – Multilevel structural equation modeling showed that 12–27% of the total variance regarding the dimensions of ethical culture was explained by departmental homogeneity (shared experiences). At both the within and between levels, higher perceptions of ethical culture associated with lower burnout and higher work engagement. **Implications** – The results suggest that organizations should support ethical practices at the work-unit level, to enhance work engagement, and should also pay special attention to work units with a low ethical culture because these work environments can expose employees to burnout. **Originality/value** – This is one of the first studies to find evidence of an association between shared experiences of ethical culture and collective feelings of both burnout and work engagement.

Keywords: ethical organizational culture; well-being; multilevel study; burnout; work engagement

Shared ethical culture and well-being

In studies of organizational behavior, the importance of contextual and work-related factors to stress and well-being has been widely established. However, the ethical aspect of work—decisions related to what is the right or wrong thing to do—has received little attention beyond business ethics research. Also the organizational context of ethical decisions, more precisely, *ethical organizational culture*, has previously been studied in relation to work attitudes such as job satisfaction and organizational commitment, but indicators of occupational well-being have mostly been ignored in this context. Occupational well-being can be conceptualized broadly as not merely the absence of stress or fatigue at work, but also the presence of positive experiences for employees (e.g., Van Horn, Taris, Schaufeli, & Schreurs, 2004). In the present study, we examine ethical organizational culture as a shared context for experiences of burnout and work engagement, which have often been seen as the opposite ends of the spectrum of occupational well-being (Schaufeli & Bakker, 2004).

Ethical culture is a specific form of organizational culture, and as such a socially constructed phenomenon (Schein, 1990, 1999). Although shared perceptions are one of the basic premises of an existing culture (e.g., Schein, 1990), to the best of our knowledge no studies have investigated ethical culture using shared level analyses (for a review, see Huhtala, 2013). The contribution of this study to this field is threefold. First, it provides information about the ethical culture of organizations as a group-level phenomenon by using a large sample: multiple work units from one public sector organization. Second, we conceptualize ethical organizational culture using a multi-faceted construct, which takes into account the fact that ethical culture can include different dimensions (Kaptein, 2008). This study expands research on ethical culture by investigating the applicability of a multidimensional approach using a heterogeneous and

hierarchical sample. Third, the present study employs multilevel modeling, which makes it possible to simultaneously investigate both the effects of individual, within work-unit evaluations, and the aggregated, between work-unit evaluations of ethical culture, and their effects on employees' well-being. This adds to what is known about shared experiences related to well-being and the association between ethical culture and these psychological indicators. The results could have important implications for how to develop working environments that increase positive employee-related outcomes at the work-unit level.

Ethical Culture and the Corporate Ethical Virtues Model

Ethical culture can be defined as the shared values, norms and beliefs about ethics that are upheld in an organisation and which can promote ethical conduct (Treviño, 1986; Treviño, Butterfield, & McCabe, 1998). In the present study we focus on ethical culture because it is an example of a virtuous environment, an environment characterised by moral values, assumptions and beliefs. This is also significant in supporting well-being, as the cultural context can have a profound effect on levels of stress and attitudes toward work (Peterson & Wilson, 2002), and ethical values can promote positive interactions among employees (Valentine, Godkin, Fleischman, & Kidwell, 2011). Ethical culture has been shown to relate to better well-being among managers (Huhtala, Feldt, Lämsä, Mauno, & Kinnunen, 2011), but evidence on the level of the organization, based on shared experiences, is lacking. This study aims to shed new light on this topic.

In this study we use the Corporate Ethical Virtues model (CEV; Kaptein, 2008, 2011b) to conceptualize an ethical working environment. The model is grounded on a virtue-based theory of business ethics (Solomon, 2004) which, in line with the cultural theory of Schein (1990), sees individuals as members of organized groups such as corporations. Solomon (2004) highlights

personal integrity, which should be supported by the ethical values and practices of the work community. Kaptein (2008) extended Solomon's theory from individuals to organizations, underlining that also organizations need to possess certain characteristics (virtues) that will lead to ethical actions. In contrast to previous attempts to operationalize ethical culture with a one-dimensional model (Key, 1999; Treviño et al., 1998), Kaptein (1998) found seven organizational factors, virtues, which can contribute to the ethical conduct of employees. This finding was based on a qualitative analysis of 150 actual cases including different types of unethical behavior that were at least partly caused by the organization's culture. This multidimensional model was later empirically tested and validated in four interlocking studies (Kaptein, 2008). The benefit of using a multidimensional model compared to one-dimensional construct is that it enables to investigate whether different dimensions are differently related to certain outcomes, such as unethical behavior or well-being. The dimensions that are found to be most significant in relation to the outcome can be taken into the focus of interventions, for example.

The final CEV model includes eight virtues which should be embodied in the organizational culture (Kaptein, 2008). First, *clarity* of ethical standards refers to concrete and understandable expectations, which support ethical decision-making; vague or ambiguous norms can be a major cause of unethical behavior (Bird & Waters, 1989; Tyler & Blader, 2005). *Congruency of management* was first theorized as a single virtue, but in Kaptein's (2008) study it was found to be a two-dimensional construct. Consequently, the virtue was made more specific, as pertaining to the congruency of 1) supervisors and 2) managers. Thus, the second and third virtues reflect managerial behavior: ethical role modeling by supervisors and senior management. If managers behave unethically, they not only contradict existing ethical expectations but also set an example which signals to employees that unethical actions are allowed. This can expose the

organization to the likelihood of breaches of ethicality (Kaptein, 2008, 2011b). The fourth virtue in the CEV model is *feasibility*, the opportunity or ability to behave ethically. Feasibility includes the actual resources available for ethical actions: sufficient time, financial resources, equipment, and information, and also the personal authority to act according to norms and values without being under pressure to break the rules (Kaptein, 2008, 2011b). Even if the organization has clear ethical standards, if the actual conditions of work do not allow staff to comply with them the result is a higher risk of unethical conduct (Kaptein, 1998).

Fifth, *supportability* refers to creating a shared commitment to ethical behaviors through fair treatment and an organizational atmosphere of mutual trust. According to social bond theory, a lack of attachment or commitment to one's community increases the risk of unethical behavior (Hirschi, 1969), whereas encouraging employees and managers to identify with organizational values increases their intrinsic motivation to comply with ethical standards (Tyler & Blader, 2005). *Transparency*, the sixth virtue, acknowledges that (un)ethical behaviors and their consequences should be perceptible to all members of the organization. This leads to employees being more aware of the consequences of their actions, and increases the possibility of getting caught for unethical conduct: both act as deterrents to unethical behavior (e.g., Hollinger & Clark, 1982; McCabe, Treviño, & Butterfield, 1996). Seventh, *discussability*, the opportunity to raise and discuss ethical issues, can support employees when they face ethical dilemmas. A lack of criticism and limited readiness to discuss ethical issues can lead to unethical behavior (Kaptein, 1998), and persistently avoiding talking about ethical matters can result in higher levels of moral stress (Bird & Waters, 1989). Finally, the virtue of *sanctionability* refers to the likelihood of employees and managers being rewarded for ethical behavior and punished for behaving unethically (Kaptein, 2008). Rewarding ethical conduct makes employees see ethicality as worth

pursuing, which can reduce the probability of their resorting to unethical behavior (Kaptein, 1998; Román & Munuera, 2005). On the other hand, if unethical conduct goes without punishment, it signals to employees that breaches of ethicality are acceptable (Ball, Treviño, & Sims, 1994).

Taken together, the stronger the presence of these aforementioned virtues, the more ethical the organizational culture is. Therefore, the virtuousness of an organization can be defined by how far its culture encourages ethical behavior and how far it prevents its members from acting unethically (Kaptein, 1998).

Ethical Culture as a Socially Constructed Phenomenon

Ethical culture is created and reproduced in socialization processes (Schein, 1990, 1999). Values and norms, which form the essence of culture, are shared and transmitted through social learning processes such as modeling, observation, and individual interaction between organizational members (Bandura, 1986). However, previous research on ethical culture has focused only on individual evaluations and has not taken into account whether the perceptions of ethical values and norms are actually shared within an organization. In studying organizational culture, the existence of subcultures also needs to be taken into consideration.

As noted by Schein (1990), the likelihood that subcultures will emerge increases with the size and history of an organization. Organizational members who work in the same unit and interact with each other are likely to have shared perceptions of values, ethical norms, and other dimensions of ethical culture. Even though there may be differences between small sub-units within one organization, it should be noted that each sub-unit also contains common elements that are typical of the whole organization (Cameron & Quinn, 2006). That is, in addition to the units' identifying and unique characteristics, the subcultures also contain core elements that are

similar to the culture of the whole (Albert & Whetten, 1985). In the present study, the question of subcultures was addressed by examining ethical culture at the work-unit level instead of the level of the organization as a whole.

Shared perceptions of ethical culture within different work units (i.e., how similar the views of employees in the same department are about ethical virtues) should also be taken into consideration. As Treviño, Weaver, and Reynolds (2006) make clear in their extensive review, both 1) the attitudes and behavior of peers in the workplace and 2) the socialization processes promoting accepted and standardized ways of thinking and acting affect individuals' ethical behavior. Members of sufficiently isolated work environments can form "moral microcosms" (Brief, Buttram, & Dukerich, 2001) into which new members are incorporated. This can lead to normalizing (un)ethical behavior, as the organizational members act in isolated interaction and create uniform patterns of thinking and acting, hence making the customary (unethical) ways of behaving acceptable (Treviño et al., 2006). Therefore more research into evaluations of ethical culture at the work-unit level is needed. With more understanding of ethical subcultures, different interventions could be directed toward work environments that have, for instance, deficient ethical norms.

In the light of theories on organizational culture, we posed the following hypothesis:

H₁: Employees in the same work unit will resemble each other in their experience of the ethical culture (i.e. there will be shared perceptions of the eight CEV dimensions in each work unit).

Shared Experiences of Burnout and Work Engagement

In this study we focus on job burnout and work engagement as work-related outcomes. These constructs have been the prominent negative and positive indicators of occupational well-

being in contemporary research (for reviews, see e.g., Halbesleben, 2010; Häusser, Mojzisch, Niesel, & Schulz-Hardt, 2010). Job burnout is a work-induced stress reaction that is characterized by three related but empirically distinct dimensions: exhaustion, cynicism, and reduced professional efficacy (Bakker, Van Emmerik, & Euwema, 2006; Leiter & Schaufeli, 1996; Maslach & Leiter, 1997). Feelings of exhaustion, i.e., energy depletion and fatigue, are generally seen as a core symptom of the burnout syndrome (Cox, Kuk, & Leiter, 1993; Maslach, 1993), whereas cynicism refers to negative, indifferent attitudes toward work and the people one works with (colleagues or clients). Reduced professional efficacy encompasses beliefs of a declined performance, so that one feels it is no longer possible to properly meet the demands of one's job. Studies on work conditions that can prevent or reduce burnout are of importance since burnout can lead to lower job satisfaction (e.g., Brewer & Clippard, 2002), reduced emotional and physical well-being (e.g., Burke & Greenglass, 1996), absenteeism (e.g., Schaufeli, Bakker, & Van Rhenen, 2009), and job turnover (e.g., Firth & Britton, 1989), all at a substantial cost to both the individuals and organizations affected.

Work engagement can be described as the positive state at the opposite extreme from burnout. Kahn (1990) was among the first researchers to define engaged employees as expressing physical, cognitive, and emotional connectedness with and involvement in their work roles. In this study we use possibly the most cited definition of work engagement, that is, “a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption” (Schaufeli, Salanova, González-romá, & Bakker, 2002, p. 74). Engaged workers have high levels of energy and mental resilience while working (vigor), they are strongly involved in and enthusiastic about their work (dedication), and often get immersed in their work activities (absorption). By creating work environments that support work engagement, additional

positive outcomes can be attained, as work engagement has been shown to promote job performance (e.g., Halbesleben & Wheeler, 2008), employee retention (Schaufeli & Bakker, 2004), and organizational citizenship behaviors (Bakker, Demerouti, & Verbeke, 2004).

One important contribution of the present study is its examination of the extent to which experiences of burnout and work engagement, as well as of ethical culture, are shared among employees within the same work unit. There is previous evidence of burnout contagion (Bakker, Le Blanc, & Schaufeli, 2005) and crossover of both burnout and work engagement in work teams (Bakker et al., 2006), where burnout and engagement are transmitted from one employee to another both consciously and unconsciously through socializing and interaction. These studies reinforce the notion that people do not perform their jobs in isolation and that team-level phenomena are of importance to individual experiences and work outcomes (e.g., Devine, Clayton, Philips, Dunford, & Melner, 1999; Gully, Incalcaterra, Joshi, & Beaubien, 2002). In line with these results, we hypothesized the following:

H₂: Employees in the same work unit will resemble each other in their experiences of burnout and work engagement (i.e. perceptions in the work unit will be at least partially shared).

Ethical Culture as a Context for Well-being

In this study we argue that ethical organizational culture forms a favorable working environment which supports well-being (i.e., higher work engagement and lower burnout). We base our argument on the transactional theory of psychological stress, where stress is seen to result from a transaction between the individual and the environment (Lazarus & Folkman, 1984; for reviews, see Cooper, Dewe, & Driscoll, 2001; Kahn & Byosiere, 1992). Stress arises when an individual experiences that the demands and expectations of the environment exceed his or her

personal resources. Cognitive appraisal is an essential feature of this process: whether or not the individual sees a particular encounter with the environment as being relevant to his or her well-being. This process includes a primary appraisal – what is at stake, will potential harm or benefit result from the situation? – and secondary appraisal, an evaluation of the different ways of coping with the situation (Lazarus & Folkman, 1984). For example, the feeling that the organization does not provide sufficient resources and personal authority for ethical behavior (i.e., has low feasibility) can be experienced by the employee as a stressor, because it prevents him or her from acting according to the organization's ethical norms or according to the employee's own values. From this perspective, it is also important for researchers to investigate individual experiences of ethical culture, because personal appraisals of the environment can differ from shared and collective views about the organizational culture and can lead to different personal outcomes.

Thus, whether certain situations create feelings of stress is not a property of a person or of the environment, but results from the interaction between the two (Lazarus, 1991). This transactional view has also been applied into ethical decision-making models (Treviño et al., 2006): individuals have personal characteristics such as cognitive processes (e.g., the level of moral awareness; how the person recognizes that a moral problem exists) and affective traits (e.g., moral motivation; whether the person sees moral values more important than other values) that interact with contextual (situational and organizational) influences. When an individual faces and recognizes an ethical dilemma and tries to find a solution to the problem, ethical organizational culture is one such context that can at its best provide clear norms and support that help in these complex ethical decision-making situations. Vice versa, if the organizational culture lacks a well-defined set of ethical standards, it can be a key source of stress (Ulrich et al., 2007;

Waters & Bird, 1987). That is, when individuals face ethical conflicts but there is a lack of clear ethical guidelines or little possibility to discuss ethical issues with others, this discrepancy between situational demands and personal resources can create stress (Waters & Bird, 1987). These conflicts can also stem from a mismatch between personal and organizational values. One such example could be that the individual has a strong commitment to take the moral course of action, but the organization aims to meet financial targets at any cost. This kind of value imbalance can lead to employee stress, lack of organisational commitment, absenteeism and turnover intentions (Thorne, 2010), and it has been suggested to be among the most prominent factors causing burnout today (Schaufeli, Leiter, & Maslach, 2009). Taken together, a strong ethical culture with enacting ethical virtues can decrease the risk of conflicts between situational demands and resources, and between personal and organizational values.

Several studies have also provided empirical support for the notion that a higher level of organizational ethics is associated positively with different individual outcomes, such as better job satisfaction (Jaramillo, Mulki, & Solomon, 2006; Pettijohn, Pettijohn, & Taylor, 2008; Valentine et al., 2011) and higher organizational commitment (e.g., Huhtala, Feldt, Hyvönen, & Mauno, 2013; Sharma, Borna, & Stearns, 2009; Treviño et al., 1998; Valentine, Godkin, & Lucero, 2002), which can reduce employees' turnover intentions (e.g., Jaramillo et al., 2006; Pettijohn et al., 2008; Valentine et al., 2011). Huhtala et al. (2011) showed that ethical culture was associated with less ethical strain, less emotional exhaustion (the core dimension of burnout), and higher work engagement at the individual level. Therefore it seems evident that ethical values have positive effects on employee well-being.

However, previous studies examining the connections between ethical context and well-being have not utilized a multilevel sampling and modeling approach. The advantage of this

approach is that it enables the simultaneous investigation of both individual and work-unit level associations. One aim of the present study is to show whether ethical culture is also associated with burnout and engagement at the work-unit level. Such an association could have practical implications, for example, allowing an organization to identify and intervene in work units that have a low ethical culture and are therefore at risk for lowered well-being. In line with the aforementioned theoretical reasoning and empirical findings, we hypothesized the following:

H₃: Individual experiences of a high level of ethical organizational culture are associated with lower individual burnout.

H₄: Individual experiences of a high level of ethical organizational culture are associated with higher individual work engagement.

H₅: Shared experiences of a high level of ethical organizational culture are associated with lower shared burnout.

H₆: Shared experiences of a high level of ethical organizational culture are associated with higher shared work engagement.

Method

Participants and Procedure

The questionnaire data was gathered from one public sector organization ($N = 8366$). The organization has four large units (service areas), namely: 1) *administrative services* ($n = 268$, 3.2%); 2) *urban design and business activities* ($n = 1766$, 21.1%); 3) *social affairs and health* ($n = 4359$, 52.1%); and 4) *education and culture* ($n = 1973$, 23.6%). In the organizational structure these four units further divide into smaller units with two hierarchical levels (described more precisely later). The Internet-based questionnaire study was conducted in 2011. The content of the project and the research procedure were agreed on with representatives from the organization,

and an electronic bulletin describing the research project and its purpose was displayed in the organization's intranet. In the following week, an e-mail link to the questionnaire was sent to all employees, including a cover letter clearly stating that participation in the study was voluntary and confidential. Altogether 3,402 respondents started to answer the questionnaire (not everyone completed all items), yielding a response rate of 40.7% (3,402 of 8,366).

To address the possibility of common method variance bias, we followed remedial procedures suggested by Podsakoff, MacKenzie, Lee, and Podsakoff (2003). First, the questionnaire as a whole included different response formats: Likert scales with different endpoints, reversely scored items, and also open-ended questions. Second, regarding each question, all the relevant concepts were explicitly specified, with examples when needed. Third, to avoid social desirability in answering, participants were guaranteed response anonymity. Fourth, as proposed by Frese and Zapf (1988), when using multilevel modeling the individual results are aggregated at the between level, which helps to minimize the problem of common method variance. Finally, as the focus of this study was on perceived rather than objective ethical culture and well-being, using self-reports was the most relevant method (see, e.g., Conway & Lance, 2010).

Due to missing data ($n = 365$) or missing information regarding the respondent's work unit ($n = 891$), the final sample was reduced to 2,146. The analyses were performed on the smallest unit level, where more social interaction is expected to exist between organizational members. The sample consisted of 10 units from the service area of administration, 40 units from urban design and business activities, 140 units from social affairs and health, and 55 units from education and culture, representing a total of 245 units (the organizational structure is shown in Figure 1). The average number of participants per work unit was 8.76.

The majority (85%) of the participants were women. The largest age group was 50–55-year-olds, who comprised 19% of the participants. Of the total sample, 32% had a vocational degree and 19% had a university degree. Only a minority of the participants (10.3%) had managerial tasks. The majority had a permanent work contract (86%) and worked a regular day shift (70%). The respondents typically worked 37.4 hours per week ($SD = 7.57$) and had been working in the organization for 6 to 15 years (32% of respondents).

The attrition analysis showed that the participants differed to some extent from the non-respondents in terms of gender, $\chi^2(1) = 246.88, p < .001$; and age, $\chi^2(4) = 133.11, p < .001$. Compared to the organization's employees overall, women were over-represented among the respondents. Of the age categories, under 30- and over 60-year-olds were under-represented among the respondents; and 41–50-year-olds were over-represented. Gender and age were the only available background variables relevant to the whole organization, which could thus be included in the attrition analysis.

Measures

Ethical organizational culture was measured using the 58-item Corporate Ethical Virtues questionnaire (CEV; Kaptein, 2008). The scale was first translated from Dutch to Finnish and later back-translated to Dutch by two independent authorized translators. The back translation was revised with minor changes and approved by the original author (see Huhtala et al., 2011). The scale includes eight dimensions: *clarity* (10 items, e.g., “In my immediate working environment, it is sufficiently clear how we are expected to conduct ourselves in a responsible way”); *congruency of supervisors* (6 items, e.g., “My supervisor sets a good example in terms of ethical behavior”); *congruency of senior management* (4 items, e.g., “The Board and (senior) management communicate the importance of ethics and integrity clearly and convincingly”);

feasibility (6 items, e.g., “I have insufficient time at my disposal to carry out my tasks responsibly”); *supportability* (6 items, e.g., “In my immediate working environment, an atmosphere of mutual trust prevails”); *transparency* (7 items, e.g., “If a colleague does something which is not permitted, my manager will find out about it”); *discussability* (10 items, e.g., “In my immediate working environment, there is adequate scope to discuss personal moral dilemmas”); and *sanctionability* (9 items, e.g., “In my immediate working environment, ethical conduct is rewarded”). Participants rated these items on a Likert scale from 1 (*strongly disagree*) to 6 (*strongly agree*), and negatively worded items were reversely scored for the purposes of the analyses. Total mean scores were calculated for each dimension, with a higher score (range 1–6) referring to a higher level of ethicality. Both discriminant validity (all the observed items loaded positively and significantly on the postulated dimensions, i.e. eight dimensions can be differentiated) and convergent validity (all eight dimensions loaded positively on overall ethical organisational culture) have been supported by previous research with Dutch employees (Kaptein, 2008) and Finnish managers (Huhtala et al., 2011), and the factor structure has been found to be invariant across Finnish organizational samples (Kangas, Feldt, Huhtala, & Rantanen, 2013).

Burnout was assessed using the 9-item Bergen Burnout Inventory (BBI-9; Näätänen, Aro, Matthiesen, & Salmela-Aro, 2003; Salmela-Aro, Näätänen, & Nurmi, 2004; Salmela-Aro, Rantanen, Hyvönen, Tilleman, & Feldt, 2011). The BBI-9 measures each of the three burnout dimensions with three items: e.g., “I am snowed under with work” (*exhaustion*); “I feel dispirited at work and I think of leaving my job” (*cynicism*); “Honestly, I felt more appreciated at work before” (*sense of inadequacy at work*). The items were rated on a 6-point frequency-based scale ranging from 1 (*completely disagree*) to 6 (*completely agree*). Total mean scores (range 1–6)

were calculated for each of the three dimensions, with higher scores indicating a higher level of burnout. The construct validity of the BBI-9 has been supported in previous studies (Feldt et al., 2013, Salmela-Aro et al., 2011).

To assess *work engagement*, the short version of the Utrecht Work Engagement Scale (UWES-9; Schaufeli, Bakker, & Salanova, 2006) was used. The UWES-9 includes three dimensions that reflect the underlying dimensions of engagement: *vigor* (3 items; e.g., “At my work, I feel bursting with energy”); *dedication* (3 items; e.g., “My job inspires me”); and *absorption* (3 items; e.g., “I am immersed in my work”). The shortened version (using 9 of the original 17 items) of the UWES has proven to be a valid measure, and the three scale scores have good internal consistency and test-retest reliability (Schaufeli, Bakker, & Salanova, 2006; Seppälä et al., 2009). Again, total mean scores representing each dimension (range 1–7) were calculated.

Control variables: Age, gender, educational level, managerial tasks (yes/no), and working hours (per week) were controlled for in the analyses (used as predictor variables for ethical culture, burnout and work engagement). The aforementioned control variables were chosen because they have been shown to be associated with both evaluations of ethical culture (e.g., Huhtala et al., 2011) and occupational well-being (e.g., van der Hulst, 2003; Warr, 1992).

Analyses

Statistical analyses were performed using a multilevel modeling technique, where individuals may be nested within higher levels of classification, referred to as *work units* in the present study. Here, the focus of the analysis was to investigate the extent to which employees from the same work unit shared similar perceptions of the ethical organizational culture (i.e., the presence of corporate ethical virtues). In addition, the shared experiences of burnout and work

engagement at the work-unit level (the extent of similarity between employees working in the same unit) were examined. That is, the individual data is modeled at two levels, in which the second level (between level) explains how much of the variance is shared (related to the work unit). Finally, we investigated the associations between ethical organizational culture and well-being (burnout and work engagement) at both the individual and work-unit levels.

We used the multilevel modeling technique (Duncan et al., 1997; Muthén, 1997; Snijders & Bosker, 1999), which enabled us to perform the aforementioned hierarchical analysis by separating out the variance in the observed variables into two components. First, the between-level (work-unit level) variation describes the amount of variance due to differences between work units. Second, the within-level (individual level) variation describes the amount of variance due to individual differences in the work units. Intraclass Correlations (ICC; Heck, 2001; Muthén, 1991) are calculated for each variable by dividing the between-level variance by the total variance, which provides an estimate of what proportion (%) of the total variance is accounted for by the work-unit level. If the ICCs reveal that statistically significant between-level variation exists, then it is meaningful to proceed to further multilevel analyses.

The analyses were executed by means of the following three steps. First, the variation in the observed variables was investigated by calculating the ICCs, in order to determine what proportion of the variance was due to the work-unit level (examining Hypotheses 1 and 2) and what was attributable to the individual level. Second, the equality of the measurement structure (including ethical culture, burnout and work engagement simultaneously in the model) was tested across the within and between levels. When we tested the measurement model for all factors, we also investigated whether the different dimensions of ethical culture had specific, individual associations with the well-being outcomes; that is, whether some dimensions had

residual variance that could not be explained by the factor of total ethical culture and if these residual variances had significant associations with burnout, work engagement and/or their sub-dimensions. This procedure is in line with the multi-dimensional structure of the CEV model, which acknowledges that although the dimensions form the overall ethical culture, the different dimensions may still have separate connections to different outcomes (see also Huhtala et al., 2011; Kaptein, 2009, 2011a, 2011b). Third, we estimated a regression model for the hypothesized associations and tested whether the regression coefficients could be set equal across the within and between levels, following the statistical procedure for testing homology put forward by Chen, Bliese, and Mathieu (2005). All of the analyses were performed by applying multilevel factor modeling and multilevel structural equation modeling (ML-SEM) approaches, using the Mplus software program (Version 6; Muthén & Muthén, 1998-2010).

We used a maximum likelihood estimator with a test for robust standard errors (MLR) and the χ^2 test as the method of estimation. However, χ^2 is sensitive to sample size (Raykov, 1998), so that the probability of rejecting a hypothesized model increases as the sample size increases. We used a combination of four goodness-of-fit indices to overcome this problem and to produce a reliable evaluation of the model fit with the data: CFI (Comparative Fit Index), TLI (Tucker Lewis Index), RMSEA (Root Mean Square Error of Approximation) and SRMR (Standardized Root Mean Square Residual). The CFI and TLI values range between 0 and 1, and values above .90 are considered to indicate an acceptable fit of the model (Marsh, 2004). As for the RMSEA, values below .06 (Hu & Bentler, 1998), and for the SRMR, values below .08 (Hsu, 2009; Hu & Bentler, 1999) indicate a good model fit.

Results

Intraclass Correlations

The results of the first step of the multilevel analysis showed that the variance in the variables measuring ethical culture and well-being was divided into *between* work-unit and *within* work-unit components. The ICCs and descriptive statistics are given in Table 1, and the correlation matrix is presented in Table 2.

As shown in Table 1, different dimensions of ethical culture were shared within the work units: 12–27% of the total variance was explained by departmental homogeneity. For the well-being variables, a smaller amount of variance was due to shared experiences among employees in the same work unit (6–9% for burnout, and 3–5% for work engagement). The rest of the variance in each variable was due to individual differences within work units. For all of the latent variables the ICCs were significant ($p < .01$), supporting Hypotheses 1 and 2, and thus justified proceeding with the analyses.

The Multilevel Structural Equation Model for Ethical Organizational Culture and Occupational Well-Being

The first stage was to construct measurement models for ethical culture, burnout and work engagement using multilevel factor modeling (see Figure 2 and Table 3). First of all we estimated a model that included all three factors at the same time, without any equality constraints between levels and allowing all the factors to correlate. The modification indices showed high correlations between the residual covariance of the dimension of feasibility and the burnout variables at the within level. We modified the model by adding a specific factor encompassing the residual covariance of feasibility, which had a significant association with burnout and exhaustion (see Figure 2). At the between level, the model fitted well and there were no statistical grounds for adding this specific factor. Second, we tested a constrained model, where the factor loadings were set to be equal at both levels. The Satorra-Bentler difference test

showed a significant loss of model fit, but RMSEA value decreased from .050 to .049, indicating a better fit for the constrained model (MacCallum, Browne, & Sugawara, 1996). Third, we tested whether the residual variances could be set to zero in the between level. This model provided significantly poorer fit (RMSEA increased to .063), and therefore the previous constrained model was accepted. With this model the associations between ethical culture and well-being outcomes was tested. Finally, we tested the regression model with metric similarity, i.e., the regression coefficients were set equal at both levels. This constrained model did not show a significant loss of fit compared to the freely estimated regression model, and it was therefore accepted as our final model.

At the work-unit level, the latent factor of *Shared perceptions of ethical culture* was based on the (quality of the) eight ethical virtues representing the work unit's ethicality. The standardized factor loadings (shown in Figure 2) ranged from .49 to .73, suggesting an acceptable construct validity of the CEV model. At the individual level, the latent factor of *Individual perceptions of ethical culture* was based on individual evaluations of the eight ethical virtues (standardized factor loadings varied between .47 and .80). In addition, latent factors for the well-being variables were constructed for both the between and within levels. The results showed that at the between level, the standardized factor loadings for the latent factor of *Shared experiences of burnout* varied from .51 to .73, and for *Shared experiences of work engagement* between .67 and .73. At the individual level, equivalent latent factors, i.e., *Individual experiences of burnout* and *Individual experiences of work engagement* were constructed with factor loadings between .51–.91 for burnout and .75–.92 for work engagement.

The results with respect to the work-unit level showed that shared perceptions of ethical organizational culture among members of the work units were related to lower burnout and

higher work engagement (both outcomes indicated as shared experiences). The shared experiences of ethical culture were also related to the individual levels of burnout and work engagement, because the estimate of individual well-being includes an average level (across all units and individuals), difference in each work unit from this average level (which is predicted by the shared culture), and difference in each individual from the previous estimates. That is, shared culture was related to the individual experiences of well-being with equal value in the same work unit. Although the shared variance for burnout and work engagement between the work units was only moderate (between 3 and 9%), this proportion was strongly associated (-.84-.81) with the shared experiences of ethical culture.

At the within level, employees' perceptions of the ethical organizational culture were related to their burnout negatively and work engagement positively. That is, the more ethical an individual employee perceived the organizational culture to be, the less burnout and the higher work engagement he or she reported. In addition, the specific factor encompassing the residual covariance of the individual evaluations of the feasibility dimension had a significant association with burnout and exhaustion: experiencing a lower level of feasibility (i.e., of resources available for ethical behavior) was related to a higher level of burnout and exhaustion.

Discussion

This study was among the first to demonstrate that ethical organizational culture is a socially constructed phenomenon which differs between work units. It also revealed that ethical culture is associated with occupational well-being at both the individual and work-unit level, and that also burnout and work engagement can be somewhat shared experiences within employees working in the same work unit.

Theoretical implications

The present study yielded—for the first time in the field—evidence of ethical subcultures, made clear by the fact that the shared experiences of the ethical culture dimensions (Kaptein, 2008) varied from one work unit to another. The level of agreement among employees belonging to the same work unit ranged from 12% (feasibility) to 27% (supportability). It is possible that feasibility includes the more objective aspects of ethical culture (such as money, time, and other resources allocated for ethical behavior), which are elements that are not as socially constructed or shared. These resources can vary within the same work unit, for example, between different sets of duties. In contrast, the CEV dimensions revealing the most strongly shared perceptions were supportability (the extent to which the organization supports ethical conduct, and the commitment of managers and employees to behave ethically) and congruency of supervisors (the extent to which supervisors set a good example as regards ethical behavior). The relatively high amount of agreement within work units on the congruency of supervisors may relate to the fact that employees working in the same unit are evaluating the same supervisor, and thus have more shared perceptions concerning this dimension. Also the dimension of supportability includes items that are closely related to shared experiences within a work unit (e.g., an atmosphere of mutual trust, trust between employees and management), which can explain its highest shared variance. These results gave further validation to the eight-dimensional CEV model (Kaptein, 2008) by showing that it can accurately represent the ethical culture when individual evaluations are aggregated to a work-unit level. The results also showed good support for the criterion validity of the model, because the amount of shared variance differed for each of the eight dimensions at the work-unit level; that is, the dimensions are tapping different aspects of ethical culture.

We also found support to the shared nature of burnout and work engagement; 3–9% of the variance in these dimensions was due to collective experiences of employees in the same work unit. Similar proportions of group-level variances have been reported in previous studies (for burnout and engagement, see Bakker et al., 2006; Bakker, Westman, & Schaufeli, 2007; Mauno, Kiuru, & Kinnunen, 2011; for exhaustion and vigor, see Mauno, De Cuyper, Tolvanen, Kinnunen, & Mäkikangas, 2014). Thus, our results give further support to these findings: co-workers can have a role in the development of burnout, as burnout symptoms expressed by colleagues may transfer to other employees in the work unit. Equally, engaged workers can communicate their enthusiasm, feelings of energy, and immersion in their work, and help create a shared positive working environment. Therefore both managers and employees should bear in mind that negative attitudes can spill over to colleagues, and most importantly, that expressing positive feelings can promote collective feelings of work engagement in the work place. We also found that shared ethical culture was associated with shared experiences of burnout and work engagement. This result is in line with previous research showing that a) ethical culture is important in terms of well-being and a favorable working environment (also between work units), and b) a work unit can induce a collective mood or even shared experiences of, for example, burnout or work engagement.

Practical implications

The results also have important implications for working life. The CEV scale (Kaptein, 2008) can be used as a practical tool with which to assess ethical organizational culture in different work units. Different procedures can be followed in those dimensions that are found to be at a low level, such as creating more visible and coherent expectations with respect to ethical issues if the dimension of clarity is evaluated as poor. It is also important to acknowledge that

different subcultures can exist within one organization. When interventions are undertaken to improve the quality of the ethical culture, the first step in initializing change should be mapping the current situation. This should be done at the smallest work unit level, so that information is gained about the possible differences that certain units may have when comparing to the whole organization's ethical culture. Understanding existing perceptions about the quality of the ethical culture is important, because perceptions influence behavior. When changes are introduced (for example, aimed to increase the ethical congruency of management) they should also be directed to change these perceptions. To illustrate, it is not enough that managers act according to ethical principles, but employees must be able to see that they are doing so. Using the CEV scale (Kaptein, 2008) in different work units can reveal how employees actually view their managers' ethical actions and their role modeling.

As the CEV model (Kaptein, 2008) is normative, the dimensions themselves provide practical guidelines on how to create an ethical working environment and thus improve occupational well-being. For example, practitioners working in human resource management should embed the ethical dimension in their goal setting and business strategies, in their training programs for employees and managers, and in their performance appraisal and reward systems. Our results showed that employees in the same work community largely shared their perceptions of their supervisor's ethical conduct, which adds further weight to the importance of the supervisor's role as a model. Supervisors should therefore be encouraged to set a good example of ethical behavior by being honest and reliable themselves and by upholding the organization's ethical standards.

In minimizing the risk for exhaustion in employees, the dimension of feasibility was found to be especially important. This indicates that when a work unit has inadequate resources

(time, money, etc.) to support ethical behavior, individual experiences of exhaustion can increase, which is in line with previous burnout studies (Bakker et al., 2005; Maslach, Schaufeli, & Leiter, 2001) stating that different job demands are often a significant predictor of emotional exhaustion, but not necessarily of depersonalization or personal accomplishment. In the light of these results, it is important to acknowledge that even if the overall ethical culture is at a high level, a lack of resources and of personal opportunities to do one's job ethically and responsibly, employees are exposed to feelings of emotional fatigue at work, which can also pass on to colleagues. Some studies (e.g., van Dierendonck, Schaufeli, & Buunk, 1998) have also suggested that exhaustion can be more susceptible to various interventions, whereas cynicism and professional efficacy have turned out to be more difficult to change. Therefore by investing in proper practical conditions that enable ethical behavior, organizations can prevent employee exhaustion and by doing so, also help employees to avoid exhaustion from turning to more severe and resistant feelings of cynicism and reduced professional efficacy.

Limitations and Future Research Directions

Despite this study's contributions to the field, there are some limitations that should be addressed when interpreting its results. In the first place, the possibility of common method variance has to be considered, since the data was based solely on self-reports. However, multilevel modeling aggregates individual results at the between level, which helps to minimize the problem of common method variance (Frese & Zapf, 1988). Second, it must be acknowledged that the proportions of shared variances for well-being constructs were quite low (3–9%), which suggests that experiences of burnout and engagement are strongly individual. It could be that these experiences are actually more based on individual differences than on group-level differences. Alternatively, it could result from the individual-based scales which were used

to investigate the well-being experiences (the participants were asked to evaluate their personal feelings and perceptions). To be able to match the level of analysis with the assessment, and thus possibly find higher levels of shared variances, employees should be asked to evaluate questions such as how much burnout and engagement exist in their work unit.

Third, the organizational structure used in the questionnaire could have been more specific concerning actual interactions within the different work units. For example, in administrative units or in larger units such as hospitals, the true interaction and shared culture could exist on a different level, one not revealed by the organizational structure on which the questionnaire was based. Unfortunately this information was not available. In some units only a few employees responded to the questionnaire, in which case the results may not represent the shared nature of experiences.

Fourth, our results were obtained from a public sector organization, and hence they may not be generalized to, for example, private sector companies. Also the selectiveness of the sample limits the generalizability of the results. The sample was mostly female (85% of the participants were women), and especially young male employees were under-represented in this study. Although the predominance of women participants is partly in line with organizational structure (e.g., in the social affairs and health unit 92% of the personnel were women), and we used gender as a control variable in our study, future studies should investigate these relationships using more balanced data.

Avenues for future research should include longitudinal studies, which are needed to further investigate causal relationships. In our cross-sectional study the assumed direction from ethical culture to well-being was only theoretically driven. Therefore it is possible that employees with burnout symptoms are inclined to make exaggeratedly negative evaluations of

the existing ethical culture; or, vice versa, that employees experiencing high work engagement may in general be more likely to evaluate the ethical culture as more positive. Longitudinal studies could also provide important information about the stability and change of ethical culture, and about the time lag that is needed for the well-being associations to appear. For example, how long does it take for an unethical culture to have aversive effects on employee outcomes, such as impaired well-being and decreased commitment? Future studies could also examine the mediating and moderating factors that influence the relationship between ethical culture and occupational well-being. What are the mechanisms accountable for these associations? For example, does the fit between personal and organizational values explain the association between ethical culture and personal well-being?

In this study we focused on the sub-unit level within one organisation, but it should be remembered that each sub-unit can contain common cultural elements that are typical of the whole organisation (Cameron & Quinn, 2006). That is, in addition to the units' identifying and specific characteristics (ethical virtues in this study), the subcultures also contain core elements that are similar to the culture of the organisation as a whole (Albert & Whetten, 1985). In this study we decided to outline the study on the smallest work unit level, but future research could incorporate a three-level model to test these different types of variance. That is, to investigate how much work units differ from each other, or how similar views the employees hold when comparing to the general quality of ethical virtues in the organization.

One other fruitful direction that would increase our understanding of ethical culture as a work context and its relation to different outcomes could include using a person-centered approach. Instead of assuming that employees represent homogeneous groups in their evaluations of ethical culture, as based on a variable-centered approach, individuals might form

different subgroups in which some of the eight CEV dimensions are seen as better implemented than others. For example, latent profile analysis could reveal subcultures, patterns where certain virtues are highlighted but others remain at a lower level, or longitudinal change patterns of the quality of ethical virtues. These subgroups could be studied further, e.g., in relation to well-being outcomes or objective measures such as the number of days taken as sick leave, absenteeism, or job performance. This would provide important information about individual differences and give basis for more tailored interventions.

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Table 1

Intraclass Correlations (ICCs) and Descriptives for the Study Variables (N = 1874–2151)

		ICC	min.	max.	<i>M</i> (<i>SD</i>)	α
Latent factor	Ethical culture	.21***	1.43	6.00	4.43 (.77)	.98
Observed variables	Clarity	.16***	1.00	6.00	4.88 (.82)	.92
	Congruency of supervisors	.23***	1.00	6.00	4.83 (1.09)	.96
	Congruency of senior management	.17***	1.00	6.00	4.20 (1.12)	.94
	Feasibility	.12***	1.00	6.00	4.43 (.95)	.83
	Supportability	.27***	1.00	6.00	4.15 (1.09)	.93
	Transparency	.15***	1.00	6.00	4.08 (.90)	.88
	Discussability	.17***	1.00	6.00	4.47 (.99)	.96
	Sanctionability	.13***	1.00	6.00	4.14 (.87)	.88
	Latent factor	Burnout	.09***	1.00	6.00	2.51 (.97)
Observed variables	Exhaustion	.06***	1.00	6.00	2.70 (1.04)	.72
	Cynicism	.06***	1.00	6.00	2.21 (1.07)	.85
	Inadequacy	.09***	1.00	6.00	2.63 (1.23)	.81
Latent factor	Work engagement	.05**	1.00	7.00	5.88 (1.05)	.93
Observed variables	Vigor	.05**	1.00	7.00	5.87 (1.12)	.89
	Dedication	.05**	1.00	7.00	6.01 (1.13)	.89
	Absorption	.03 <i>ns</i>	1.00	7.00	5.76 (1.21)	.83

Note. α = Crohnbach's alpha. ** $p < .01$, *** $p < .001$, two-tailed.

Table 2

Sample correlation matrix of observed variables and their means. Within-units (individual) level below the diagonal and between-units (group) level above the diagonal ($N_{between} = 245$, $N_{within} = 2146$).

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. Clarity	1.00	.71	.74	.54	.81	.87	.86	.87	-.38	-.78	-.72	.81	.79	.78	.46	.20	-.16	-.25	-.10
2. Congruency of supervisors	.56	1.00	.48	.41	.74	.72	.82	.79	-.17	-.61	-.64	.57	.50	.51	.28	.12	.03	-.14	-.03
3. Congruency of senior management	.50	.55	1.00	.68	.53	.65	.59	.69	-.45	-.52	-.54	.55	.43	.58	.13	.23	.07	-.41	-.09
4. Feasibility	.38	.36	.40	1.00	.54	.46	.46	.57	-.83	-.77	-.78	.56	.40	.49	.07	.29	.11	-.23	.16
5. Supportability	.52	.61	.50	.37	1.00	.86	.93	.94	-.28	-.79	-.74	.81	.75	.73	.42	.21	-.01	-.31	.07
6. Transparency	.48	.50	.45	.29	.61	1.00	.91	.90	-.27	-.71	-.59	.81	.78	.82	.51	.08	-.10	-.19	-.19
7. Discussability	.56	.67	.52	.39	.75	.67	1.00	.95	-.20	-.72	-.67	.74	.72	.68	.44	.10	-.03	-.21	-.02
8. Sanctionability	.49	.61	.54	.35	.64	.64	.73	1.00	-.22	-.76	-.71	.79	.77	.79	.47	.15	-.12	-.38	.10
9. Exhaustion	-.20	-.18	-.22	-.50	-.18	-.15	-.21	-.18	1.00	.62	.59	-.39	-.17	-.25	.07	-.27	-.32	.02	.14
10. Cynicism	-.30	-.31	-.30	-.45	-.32	-.26	-.36	-.31	.55	1.00	.90	-.85	-.81	-.66	-.32	-.26	.00	.17	-.14
11. Inadequacy	-.33	-.41	-.32	-.46	-.38	-.30	-.43	-.39	.51	.76	1.00	-.79	-.70	-.52	-.24	-.23	.00	.08	-.21
12. Vigor	.27	.29	.27	.28	.30	.26	.33	.31	-.35	-.60	-.50	1.00	.92	.82	.60	.24	-.17	-.10	-.13
13. Dedication	.27	.27	.26	.26	.28	.26	.32	.29	-.28	-.60	-.50	.82	1.00	.78	.59	.08	-.35	-.07	.02
14. Absorption	.24	.24	.23	.16	.22	.20	.25	.24	-.12	-.44	-.36	.68	.73	1.00	.66	.28	-.47	-.34	-.05
15. Gender	.02	-.05	.02	.04	-.05	-.03	-.07	-.04	.00	-.10	-.06	.08	.07	.10	1.00	-.09	-.54	-.07	-.17
16. Age	.04	.03	.02	.00	.07	.06	.04	-.04	.05	-.02	-.02	.05	.06	.10	-.01	1.00	.03	-.25	.11
17. Management tasks	.10	.10	.10	-.04	.10	.11	.17	.17	.07	-.04	-.08	.08	.10	.10	-.13	.13	1.00	-.07	-.21
18. Work hours/week	-.03	-.04	-.05	-.06	-.05	-.03	-.03	-.02	.12	-.01	.00	.03	.03	.06	-.02	-.03	.20	1.00	-.46
19. Education level	-.05	.01	-.04	-.05	-.01	-.04	.00	.04	.09	.01	.02	-.01	.01	.00	-.11	-.09	.24	.07	1.00

Table 3

Goodness-of-Fit indices for the tested models.

Model	χ^2	df	CFI	TLI	RMSEA	SRMR(W)	SRMR(B)	$\Delta\chi^2$ (df)
M1: Measurement model ^a	1390.81	148	0.924	0.907	0.062	0.064	0.116	
M1 _{mod} : Measurement model (modified)	917.47	144	0.953	0.940	0.050	0.042	0.087	M1 _{mod} vs. M1: 381.49(4)***
M2: Factor loadings are constraint to be equal ^b	963.20	155	0.951	0.942	0.049	0.041	0.096	M2 vs. M1 _{mod} : 47.69(11)***
M3: Residuals are set to zero ^c	1612.92	168	0.912	0.904	0.063	0.045	0.236	M3 vs. M1 _{mod} : 998.90(24)***
M4: Theoretical regression model ^d	1027.83	162	0.952	0.905	0.050	0.028	0.131	
M5: Regression model with metric similarity ^e	1026.12	165	0.953	0.908	0.049	0.028	0.130	M5 vs. M4: 1.26(3) <i>ns</i>

Note. $\Delta\chi^2$: Satorra-Bentler difference test; *** $p < .001$, two-tailed.

^aThe three-factor measurement model is estimated simultaneously in both levels. There is no equality constraint and the factors are allowed to correlate. ^bAn equality constraint for the factor loadings is added in the measurement model. ^cThe previous constraint model (M2) is modified by setting the residual variances to zero in the between level. ^dThe final constrained model (M2) is estimated as a theoretical regression model. ^eAn equality constraint for the regression coefficients is added in the regression model.

Figure 1. Organizational structure. Work units included in the analysis are displayed in boldface.

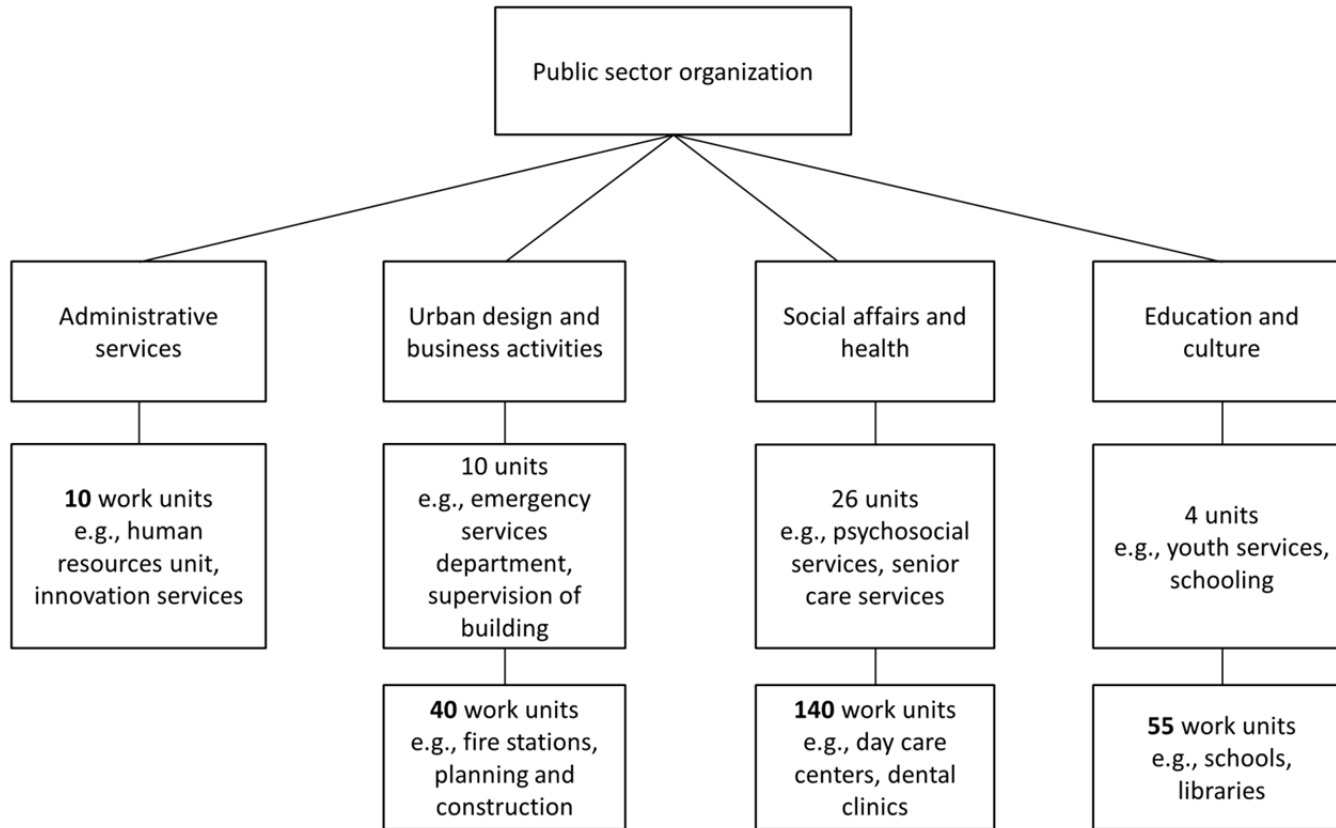


Figure 2. Final multilevel model for ethical culture and well-being.

