Perceptions of Organizational Virtuousness and Happiness as Predictors of Organizational Citizenship Behaviors

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ABSTRACT. Moral and financial scandals emerging in recent years around the world have created the momentum for reconsidering the role of virtuousness in organizational settings. This empirical study seeks to contribute toward maintaining this momentum. We answer to researchers' suggestions that the exploratory study carried out by Cameron et al. (Am Behav Sci 47(6):766–790, 2004), which related organizational virtuousness (OV) and performance, must be pursued employing their measure of OV in other contexts and in relation to other outcomes (Wright and Goodstein, J Manage 33(6):928–958, 2007). Two hundred and sixteen employees reported their perceptions of OV and their affective well-being (AWB) at work (one of the main indicators of employees' happiness), their supervisors reporting their organizational citizenship behaviors (OCB). The main finding is that the perceptions of OV predict some OCB both directly and through the mediating role of AWB. The evidence suggests that OV is worthy of a higher status in the business and organizational psychology literatures.

KEY WORDS: organizational virtuousness, psychological climate, affective well-being, happiness, organizational citizenship behaviors

Introduction

The recent moral and financial collapse of several high profile organizations around the world has led the business community (e.g., George, 2003) and the popular and business press to rediscover the worthiness of organizations' virtues (Wright and Goodstein, 2007). Scholars themselves have begun putting virtues on the stage, with Wright and Goodstein (2007) arguing that the topic is not "dead" in management research. For example, the theme of the 2007 Academy of Management annual conference was "doing well by doing good." The conference organizers acknowledged that organizational performance should consider, beyond the bottom line criteria, the degree to which organizations improve the lives of its members and stakeholders. Several scholars have also stressed that virtue needs to be placed in the business and management research agenda (Gavin and Mason, 2004; Gowri, 2007; Lilius et al., 2008; Moore, 2005; Moore and Beadle, 2006; Park and Peterson, 2003; Schudt, 2000; Wright and Goodstein, 2007). Other authors have started to investigate the topic empirically (Bright et al., 2006; Cameron, 2003; Cameron et al., 2004; Chun, 2005). Cameron et al. (2004) developed and operationalized the organizational virtuousness (OV) construct, and found promising findings regarding the relationship between OV and performance. They also pointed out how OV is especially important in difficult periods such as corporate downsizing (Bright et al., 2006).

Noticing that the relevance ascribed to character and virtues in individual and institutional life "has waxed and waned, often depending on broader trends in society and the pervasiveness of corruption and scandals in the private and public sectors," Wright and Goodstein (2007, p. 949), asked: "[w]hat is needed to maintain momentum in exploring the role of character and virtue in organizational studies?" They suggested that more research is necessary to answer the question. Organizational manifestations of virtuousness and its consequences, both for individuals and organizations, remain under-developed theoretically and empirically (Cameron, 2003; Cameron et al., 2004; Wright and Goodstein, 2007).

This article is an answer to the challenges posed by those researchers. We agree with Wright and Goodstein's (2007) suggestion that the exploratory nature of the assessment method employed by Cameron et al. (2004) invites other researchers to employ such a measure in other contexts and in relation to other outcomes (e.g., employee loyalty; organizational commitment; and well-being). More specifically, we focus on how perceptions of OV predict organizational citizenship behavior (OCB), both directly and through the mediating role of affective well-being (AWB), the hypothesized model being depicted in Figure 1. OV refers to organizational contexts where virtues (e.g., humanity, integrity, forgiveness, and trust) are practiced, supported, nourished, disseminated, and perpetuated, both at the individual and collective levels (Cameron et al., 2004). AWB is one of the most important, if not *the* most important, components of psychological well-being, or happiness (Daniels, 2000; Grant et al., 2007). OCB is one of the main constructs related to extra-role performance (Organ, 1997), and has a positive impact on individual and organizational performance (Podsakoff and MacKenzie, 1997; Podsakoff et al., 2000).

Studies on the relationship between (a) well-being and OCB and (b) perceptions of some virtuous organizational features (e.g., trust, integrity) and well-being are not really new in the literature. However, studies focusing on the OV construct as antecedent of OCB and well-being are lacking. Although studies about integrity and trust within organizations are common in the literature, research combining such aspects with perceptions of other organizational features such as compassion, forgiveness, and optimism is yet to be done. This article assumes that, for building a "stronger science of organizational behavior" (Wright and Quick, 2009), more theoretical and empirical efforts must be made to identify sources of the fruitful association between "healthy organizations" and healthy individuals (Kets de Vries, 2001; Wilson et al., 2004).

Keeping this in mind, we structured the article as follows. We start by briefly discussing each construct's definition. Making use of a double-source method for collecting data on dependent and independent variables, we hope to contribute to a better understanding of what is surely a central challenge for many contemporary organizations and their managers: to identify forms of using and developing their human capital in a way that is mutually beneficial for themselves and their employees.

Before proceeding, we clarify that, regarding OV, our focus is on psychological climates (James et al., 2008; Parker et al., 2003), without aggregating the individual's perceptions at the organizational level. Psychological climate enables people to interpret events, predict possible outcomes, and gauge the appropriateness of their subsequent actions. Studying psychological climate seems an appropriate way to investigate well-being and OCB because it is people's subjective perception and evaluation (not so much the objective situation itself) that allows them to "see" what the organization does, and then reciprocate (Haller and Hadler, 2006; Martin et al., 2005; Peterson, 2004).

Key constructs of the model

OV

The Latin word *virtus* means "strength" or "excellence." Virtues are habits, desires, and actions that produce personal and social good (Aristotle, 1999; Cameron, 2003; Gowri, 2007). They can be defined as "core characteristics valued by moral philosophers and religious thinkers" (Peterson and Seligman, 2004, p. 13). These include six broad categories: wisdom, courage, humanity, justice, temperance, and transcendence (Peterson and Seligman, 2004). Virtuousness refers to the pursuit of the highest aspirations in the human condition (Bright et al., 2006). Recent corporate scandals have prompted a growing interest in the topic as an organizational property/feature, both in the business community and academia. For example, Cameron et al. (2004) developed and validated an instrument for measuring the perceptions of OV. They found a five-factor model comprising organizational optimism, forgiveness, trust, compassion, and integrity. Organizational

Figure 1. Hypothesized model.

optimism means that organizational members develop a belief that they will succeed in doing well and doing good, even when faced with major challenges. Organizational forgiveness means that the mistakes are quickly forgiven and used as opportunities for learning in a context characterized by high standards of performance. Organizational trust indicates that courtesy, consideration, and respect govern the organization and that people trust each other and their leaders. Organizational compassion means that people care about each other, and that acts of compassion and concern are common. Organizational integrity indicates that honesty, trustworthiness, and honor pervade the organization.

Statistically significant relationships between perceived OV and performance have been found (Cameron, 2003; Cameron et al., 2004). Virtuousness amplifies positive contexts, attitudes, and behaviors. For example, when observing virtuous behaviors, employees experience positive emotions, which in turn, lead them to replicate virtuous acts, thus subsequently fostering social capital (Baker and Dutton, 2007) and increasing individual and organizational performance (Fredrickson, 1998, 2003; Staw et al., 1994). Virtuousness also buffers the organization and its members from negative contexts, attitudes, feelings, and behaviors, by enhancing resiliency, solidarity, and a sense of efficacy. For example, the exposure to virtuousness may help individuals to absorb misfortune, recover from trauma, and maintain momentum in difficult circumstances (as in the case of downsizing), allowing them and their organizations to overcome problems and difficulties, and to improve performance (Bright et al., 2006; Cameron, 2003; Cameron et al., 2004).

This association between OV and performance may make virtuousness a less foreign construct to the organizational research field (Cameron et al., 2004). As Cameron (2003, p. 49) pointed out, "organizational manifestations of OV and its consequences remain underdeveloped theoretically and empirically. This is unfortunate, because virtuousness is intimately tied to what is good to and for human beings, so its omission from scientific investigation leaves a void in understanding the full range of consequential organizational phenomena." By relating OV with extra-role performance (i.e., OCB), we hope to contribute toward making the construct more familiar and relevant to researchers at the interface between business and psychology.

AWB

"Happiness" is a subjective experience: people are happy to the extent that they believe themselves to be happy. Scholars tend to treat "happiness" as psychological well-being (Grant et al., 2007), a multidimensional construct covering several components, including AWB, competence, aspiration, autonomy, integrative functioning, and satisfaction (Daniels, 2000; Diener, 2000; Lyubomirsky et al., 2005). In this article, we focus on AWB, defined as the frequent experience of positive affects and the infrequent experience of negative affects (Daniels, 2000). The AWB construct is multidimensional and domain specific, and can be measured in relation to the work domain. Daniels (2000) proposed an AWB at work construct comprising five bi-polar dimensions: anxiety–comfort, depression–pleasure, boredom–enthusiasm, tiredness–vigor, and anger–placidity. Daniels (2000) found empirical evidence supporting the five-factor model. Empirical studies by Rego and his associates (Rego and Cunha, 2008a, 2009a, b; Rego et al., 2009) also support the model, although only after removing several scales. Rego and Cunha (2008a) also found that a second-order factor model, with the five factors loading onto an overall AWB factor, fits the data reasonably well.

OCB

The OCB was originally defined as "individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization" (Organ, 1988, p. 4). Observing problems and difficulties in distinguishing (a) between what is and what is not discretionary, and (b) between what is contractual and noncontractual, Organ (1997) suggested that OCB be redefined as contextual performance: "contributions to the maintenance and enhancement of the social and psychological context that supports task performance" (Organ, 1997, p. 91). At the heart of the OCB concept resides the idea that

organizations depending upon prescribed behavior are fragile social systems (Katz, 1964). OCB increases social capital and enhances organizational functioning (Bolino et al., 2002) and effectiveness (Podsakoff and MacKenzie, 1997; Rego and Cunha, 2008b).

The five dimensions suggested by Organ (1988) and the most frequently examined by researchers (Schnake and Dumler, 2003) are altruism, sportsmanship, courtesy, conscientiousness, and civic virtue. Altruism refers to discretionary behaviors aimed at helping other individuals with an organizationally relevant task or problem. Sportsmanship refers to tolerating the inconveniences and annoyances of organizational life without complaining and filing grievances. Courtesy is about being mindful of how one's action affects other people. Conscientiousness involves employees' behaviors that go beyond minimal requirements in carrying out their tasks. Civic virtue is the responsible participation in the political process of the organization (e.g., contribution to discussions or the involvement in organizational activities to assist and improve the organization).

Empirical studies have supported this five-factor structure (e.g., Konovsky and Organ, 1996; Podsakoff et al., 1990). However, in a meta-analysis, LePine et al. (2002) suggested that scholars should think of Organ's (1988) OCB as a latent construct and considered the OCB dimensions as somewhat imperfect indicators of the same underlying construct. They argued that, when OCB is the focal construct of interest, researchers must avoid focusing on its specific dimensions. A more recent meta-analysis conducted by Hoffman et al. (2007) also suggested that "current operationalizations of OCB are best viewed as indicators of a general OCB factor. Thus, there is likely little to be gained through the use of separate dimensional measures as opposed to an overall composite measure" (p. 562).

Hypotheses

OV and OCB

Perceptions of OV may induce people to adopt more OCB. One possible explanation is that individuals tend to act in a manner consistent with the values they perceive in the organization (Baker et al., 2006). For example, it is likely that they help coworkers and supervisors if they feel that those acts are valued in the organization, and this may be the case when they perceive their organization as virtuous. Individuals may also form positive images about the organization, increase their organizational identification, develop trust and a sense of loyalty, and help to sustain/reinforce that reputation (e.g., by speaking well about the organization in the presence of outsiders), and make efforts to perform better and to benefit the whole organization (Bagozzi, 2003; Bergami and Bagozzi, 2000; Dutton et al., 1994). Such efforts may include OCB such as civic virtue and conscientiousness.

Perceptions of OV may also lead employees to develop relational psychological contracts with the organization, thus reacting with behaviors that go beyond their in-role duties, including OCB, which benefit the organization (Coyle-Shapiro, 2002). Feeling gratitude for working in a virtuous organization (Emmons, 2003; Fredrickson, 1998), employees may be compelled to reciprocate with acts that benefit the organization and other people (Eisenberger et al., 2001; Settoon et al., 1996). They also feel that they are carrying out meaningful work, and thus bring their entire self (physical, mental, emotional, and spiritual) to the organization, and take on work more as a mission than as a mere ''job'', which, in turn makes them more affectively and normatively attached to their organizations, more committed to improving organizational performance, and more prone to adopt OCB (Gavin and Mason, 2004; Podsakoff et al., 2000; Wright and Cropanzano, 2004). Observing virtuousness creates a sense of attachment and attraction toward the virtuous actors (Bolino et al., 2002), leading the observer to experience a compelling urge to join with and build upon the contributions of such virtuous people (Cameron et al., 2004), leading them to adopt affiliative behaviors (e.g., courtesy, altruism) and to repeat the good deeds. Thus, we hypothesize that:

H1: perceptions of OV are related to OCB

AWB and OCB

Several authors have suggested that happy employees tend to be more helpful to other people, to be more

empathetic and respectful, and to perform OCB (Avey et al., 2008; Barsade and Gibson, 2007; George, 1991, 1998; Miles et al., 2002; Spector and Fox, 2002). People in good moods engage in behaviors that will support their mood. For example, people feeling happy may choose to engage in altruistic, empathetic, and courteous behaviors as a means of making themselves continue to feel happy (Isen, 1984; Miles et al., 2002). Positive emotions bring people closer, help to form and maintain relationships, and enable people to be more socially integrated and to develop more successful social interactions (Diener and Seligman, 2002; Staw and Barsade, 1993; Waugh and Fredrickson, 2006). Such positive interactions may make them more inclined to help others (altruism), to be courteous to them (courtesy), and to avoid complaints that could damage such relationships (sportsmanship).

Positive emotions can also boost employees' perceptions of enhanced meaning from work (Wright and Cropanzano, 2004), inducing them to work not only for financial rewards or career advancement, but also for the personal gratification of "doing a good job." Adopting OCB is a way to perform such a "good job." Positive emotions can broaden the scope of attention, cognition, and action, and build physical, intellectual, and social resources (Fredrickson, 2001). By broadening the options they perceive, maintaining an open approach to problem solving, and using their positive energies for adjusting behaviors to changing conditions (Avey et al., 2008), individuals are more prone to tolerate the hassles and annoyances of organizational life without complaining and filing grievances (sportsmanship) and to get involved in organizational activities to assist and improve the organization (civic virtue). Thus, we hypothesize that:

H2:   AWB will be positively related to OCB.

OV and AWB

Several authors (e.g., Cameron et al., 2004) have suggested that exposure to virtuousness produces positive emotions such as love, empathy, awe, zest, and enthusiasm, which are crucial for managerial success and organizational excellence (Fineman, 1996). Such positive emotions may give rise to more effective interpersonal relationships (Staw and Barsade, 1993) and increase the number of high-quality connections (Dutton and Heaphy, 2003). These positive social bonds may lead people to meet their social, intimacy, and security needs, thus experiencing higher AWB (Baker and Dutton, 2007; Baumeister and Leary, 1995; Haller and Hadler, 2006; Weiss, 1991). AWB amplifies the previous high-quality connections (Dutton and Glynn, 2008; Fredrickson and Dutton, 2008), nourishing upward positive spirals (Fredrickson, 2003).

Close and gratifying relationships with other people may nurture perceptions of meaningful work, thus promoting positive emotions (Arnold et al., 2007; Kets de Vries, 2001). The feeling that one works in a virtuous organization may render the job more intrinsically rewarding and, thus, lead to feelings of well-being (Kasser and Ryan, 1996; Ryan and Deci, 2000). Observing OV may also engender positive emotions because people feel psychologically and emotionally safer (Brown and Leigh, 1996; Edmondson, 2008) and consider work situations as controllable (Miles et al., 2002; Spector and Fox, 2002). Employees' sense of being respected may also increase, which reinforces their feeling of self-worth (Hodson, 2001; Ramarajan et al., 2008), which in turn increases happiness (Baumeister et al., 2003). Thus, we hypothesize:

H3:   perceptions of OV will be positively associated with AWB.

The mediating role of AWB

Several arguments support hypothesizing that AWB mediates the relationship between perceptions of OV and OCB. Bagozzi (2003) suggested that positive organizational features (e.g., organizational strengths and virtues) increase organizational identification, leading individuals to experience positive feelings, which, in turn, induce them to perform OCB. When employees perceive that their organization acts in a virtuous way, they form positive images about it and increase their organizational identification (Dutton et al., 1994). They feel proud to identify with their organization, develop their self-esteem, form affective bonds with the company, experience more positive emotions, adopt behaviors that sustain/reinforce such reputation (e.g., by

speaking well about the organization in the presence of outsiders), and make efforts to perform better and bring benefit to the whole organization (Dutton et al., 1994). Consequently, one may expect that when employees have positive perceptions about OV, they develop higher AWB, and such positive experiences induce them to carry out behaviors that benefit the organization and its members, including OCB (Bagozzi, 2003; Bergami and Bagozzi, 2000).

A few authors (e.g., Miles et al., 2002; Spector and Fox, 2002) also suggested that emotion mediates the effects of environmental conditions on employees' behavior. Cognitive interpretations of such environmental conditions provide the basis for the particular emotion experienced. If the employees appraise a situation as enhancing their well-being (such as when they perceive that they are working in an organizational context where virtues are practiced and nourished), then they will experience positive emotions, while a threat to well-being will induce negative emotions (Lazarus, 1982; Spector and Fox, 2002). Emotions, in turn, induce action tendencies that will tend to elicit behavior. Typically, emotion motivates behavior that reduces negative feelings and fosters positive feelings (Spector and Fox, 2002). It is possible that OCB can be encouraged by positive emotions because positive emotions induce tendencies to remain, encouraging people to engage in behavior that will support their emotions. People experiencing positive emotions may choose to adopt altruistic behaviors as a means of making themselves continue to feel positive emotions (Isen, 1984; Miles et al., 2002; Spector and Fox, 2002). Spector and Fox (2002) argued that situations that induce positive emotions encourage people to become more involved in the workplace, and this involvement may include adopting OCB, which can elicit positive emotions in a self-sustaining cycle. Thus, we hypothesize that:

H4: AWB mediates the relationship between perceptions of OV and OCB.

Method

Participants and procedures

A convenience sample of 216 individuals from 14 organizations operating in Portugal was collected.

Organizations belong to several industries (plastics, molds, glass, plaster, rubber, etc.), their sizes ranging from 11 to 270 employees. They are from the personal acquaintance of the researchers and/or for which the researchers have previously provided consulting and/or training. All are located at the center of Portugal. In each organization, we talked personally with a member of the top management team, asking for cooperation. Supervisor–subordinate dyads of intermediate and low levels in the hierarchy were built. Individuals reported their perceptions of OV and AWB, and their supervisors described their OCB. In order to avoid any form of embarrassment, subordinates and supervisors were asked to fill out their questionnaires in separate locations. In order to guarantee anonymity, answers were delivered directly to the researchers, under sealed cover. Only individuals with an organizational tenure greater than or equal to 6 months were considered for analysis, this being the minimum time the researchers considered necessary for people to gain a reliable impression of their organizations. This is a pragmatic criterion and a conservative one as well, considering that other researchers employ a shorter time as an exclusion criterion (e.g., Litwinenko and Cooper, 1997; Nicholson and Goodge, 1976; Tse et al., 2008).

Responses were anonymous. Employees were also asked to report age, gender, organizational tenure, schooling years, and marital status. Mean age is 39.6 years (standard deviation: 10.0) and mean organizational tenure is 14.7 years (SD: 11.1 years). Among the respondents 25.8% have 6 years, 26.8% 9 years, 31.4% 12 years of schooling, and 16% a university degree; 40.8% are female and 61.9% are married. These variables were inserted for control, because they have been related to well-being (Arthaud-Day et al., 2005; Hellgren and Sverke, 2003; Keyes et al., 2002; Lyubomirsky et al., 2005, 2006; Rego and Cunha, 2009b; Shaw and Gupta, 2004). Firm's size (as measured by the number of employees) was also included for control. The job was not solicited because, taking into account earlier research (Rego and Cunha, 2009c), the researchers conjecture that, in the cultural context of Portuguese organizations, characterized by high in-group collectivism and high power distance (Hofstede, 1991; Jesuino, 2002), asking "too much" personal information may generate a high number of non-responses, reflecting fear of being identified.

Measures

OV

Perceptions of OV were measured with the 15-item six-point Likert scales proposed by Cameron et al. (2004). The items were translated from English into Portuguese by a first translator and then independently back-translated into English by a second translator (Brislin, 1970). Discrepancies between the original and the back-translated versions were discussed between the translators. The final version was discussed once again with two bilingual Portuguese scholars, and some final adjustments were made. Respondents were asked to report the degree to which the statements were false (1) or true (6).

A confirmatory factor analysis (CFA) was carried out for testing the five-factor model (Cameron et al., 2004). Considering that RMSEA was higher than the 0.08 cutoff value, standardized residuals and modification indices were analyzed for locating sources of misspecification. After deliberation based on both techniques, one item was removed. A well-fitted, 14-item model emerged (Table I). The fit indices are satisfactory. A second-order factor model also fits the data adequately. Comparison of the first- and second-order shows a significant change in χ^2 relative to the difference in degrees of freedom ($\Delta\chi^2_{(5)} = 38.04$; $p < 0.001$). However, considering its parsimony compared with the five-factor model, as well as the results of usefulness analysis (see Table V), the second-factor model was selected for testing the hypotheses. In order to get a composite OV score, the items for each of the five dimensions were averaged to obtain a composite average for each of the five dimensions. Then, the averages for each of the five dimensions were averaged in turn to arrive at a composite OV score for each employee. Higher scores represent perceptions of better OV.

AWB

We measured AWB with the instrument validated by Daniels (2000), which covers five dimensions (anxiety–comfort, depression–pleasure, boredom–enthusiasm, tiredness–vigor, and anger–placidity), and later validated by Rego et al. (Rego and Cunha, 2008a; Rego et al., 2009) in the Portuguese context. Participants were invited to think about their feelings over the last three months in the organization, and to respond to the 30 items on a seven-point scale ranging from never (1) to always (7). A CFA tested the five-factor model (Daniels, 2000). Considering the unsatisfactory fit indices (e.g., RMSEA: 0.12; GFI: 0.65), four other models were tested, none showing satisfactory fit indices. The single-factor model merges all the items into the same factor (e.g., RMSEA: 0.14; GFI: 0.61). The two-factor model (Russell, 1980) comprises the pleasantness–unpleasantness (pleasure + comfort + placidity) and arousal (enthusiasm + vigor) dimension (RMSEA: 0.14; GFI: 0.61). The three-factor model (Daniels, 2000) considers joy–sadness (comfort + pleasure), placidity, and arousal (enthusiasm + vigor) (RMSEA: 0.13; GFI: 0.63). The four-factor model (Daniels, 2000) considers pleasure, comfort, and placidity separately, and merges enthusiasm with vigor (RMSEA: 0.13; GFI: 0.63).

Comparisons of the five-factor model with each one of the four models show significant changes in χ^2 relative to the difference in degrees of freedom (e.g., in comparison with the four-factor model: $\Delta\chi^2_{(3)} = 26.29$, $p < 0.001$), the five-factor model expressing less unsatisfactory fit indices. Thus, standardized residuals and modification indices were analyzed for locating sources of misspecification in the five-factor model. After deliberation based on both techniques, 15 items were removed. A reasonably well-fitted, 15-item model emerged (Table II). All Lambdas except two (0.44; 0.48) are higher than 0.50. A second-order factor model was also tested, where the five AWB dimensions were hypothesized to load on a higher AWB factor. Fit indices are reasonably satisfactory.

Comparison of the first- and second-order shows no significant change in χ^2 relative to the difference in degrees of freedom ($\Delta\chi^2_{(5)} = 17.09$, $p = 0.43$). A single latent factor (all the 15 items loading on a single-factor model) was also tested, the fit indices being unsatisfactory (e.g., RMSEA: 0.15; GFI: 0.75). Considering these findings (as well as the usefulness analysis; see Table IV, in the "Results" section), the second-order factor model was selected for further analysis. In order to get a composite AWB score, the items for each of the five dimensions were averaged to obtain a composite average for each of the five dimensions. Then, the averages for each of the five dimensions were averaged to arrive at a composite AWB score for each employee. Higher scores represent higher AWB.

TABLE I

Confirmatory factor analysis for OV (completely standardized solution)

	First-order factor model	Second-order factor model
Optimism	(0.61)	(0.61)
We are optimistic that we will succeed, even when faced with major challenges	0.49	0.50
In this organization, we are dedicated to doing good in addition to doing well	0.60	0.60
A sense of profound purpose is associated with what we do here	0.73	0.73
Trust	(0.70)	(0.70)
Employees trust one another in this organization	0.59	0.60
People are treated with courtesy, consideration, and respect in this organization	0.74	0.73
People trust the leadership of this organization	0.72	0.72
Compassion	(0.77)	(0.77)
Acts of compassion are common here	0.68	0.68
This organization is characterized by many acts of concern and caring for other people	0.77	0.77
Many stories of compassion and concern circulate among organization members	0.77	0.77
Integrity	(0.80)	(0.80)
This organization demonstrates the highest levels of integrity	0.71	0.69
This organization would be described as virtuous and honorable	0.78	0.78
Honesty and trustworthiness are hallmarks of this organization	0.82	0.83
Forgiveness	(0.70)	(0.70)
We try to learn from our mistakes here, consequently, missteps are quickly forgiven	0.67	0.70
This is a forgiving, compassionate organization in which to work	0.80	0.76
Organizational virtuousness		(0.90)
Optimism		0.99
Trust		0.96
Compassion		0.88
Integrity		0.90
Forgiveness		0.98
Fit indices		
Chi-square	135.72	173.76
Degrees of freedom	67	72
Chi-square/degrees of freedom	2.0	2.4
Root mean square error of approximation	0.07	0.08
Goodness of fit index	0.92	0.90
Adjusted goodness of fit index	0.87	0.85
Comparative fit index	0.95	0.92
Incremental fit index	0.95	0.92
Relative fit index	0.87	0.85

In brackets: Cronbach Alphas.

For testing the impact of removing items, we compared mean differences across some groups, both with and without "problematic" items (Chan, 2000; Robert et al., 2006). For example, the mean score on the comfort dimension, with the final versus the six original items, was computed for gender. Then, gender was compared using the d statistic (i.e., the standardized mean difference). With the six items, the means for the two groups differed by 0.16 standard deviation units. With the three items, the between-group difference is also 0.10, the difference in d being 0.06. For pleasure, enthusiasm, vigor, placidity, and overall AWB, the differences in d are, respectively, 0.10, 0.01, 0.07, 0.16, and 0.07. The same procedure was carried out for comparing two organizational tenure levels. Considering that, in

TABLE II

Confirmatory factor analysis for AWB (completely standardized solution)

	First-order factor model	Second-order factor model
Anxiety–comfort	(0.67)	(0.65)
Anxious (r)	0.60	0.60
Worried (r)	0.48	0.46
Tense (r)	0.83	0.85
Depression–pleasure	(0.81)	(0.80)
Happy	0.87	0.87
Cheerful	0.65	0.65
Pleased	0.80	0.80
Boredom–enthusiasm	(0.82)	(0.82)
Enthusiastic	0.70	0.70
Motivated	0.84	0.85
Optimistic	0.81	0.81
Tiredness–vigor	(0.72)	(0.73)
Active	0.79	0.78
Alert	0.51	0.50
Full of energy	0.81	0.81
Anger–placidity	(0.64)	(0.66)
Aggressive (r)	0.44	0.44
Angry (r)	0.70	0.67
Annoyed (r)	0.72	0.74
Overall AWB		(0.77)
Comfort		0.75
Pleasure		0.74
Enthusiasm		0.82
Vigor		0.58
Placidity		0.75
Fit indices		
Chi-square	184.96	202.05
Degrees of freedom	80	85
Chi-square/degrees of freedom	2.3	2.3
Root mean square error of approximation	0.08	0.08
Goodness of fit index	0.90	0.90
Adjusted goodness of fit index	0.85	0.84
Comparative fit index	0.90	0.90
Incremental fit index	0.90	0.90
Relative fit index	0.80	0.79

In brackets: Cronbach Alphas.
r reverse-coded items.

each comparison, all except one difference in d are not higher than 0.10 (Robert et al., 2006), the impact of removing items seems not to be problematic. Correlations between the scores computed with the original versus the final items range from 0.83 to 0.91.

OCB

For measuring OCB, we used the 32 items with seven-point Likert scales suggested by Konovsky and Organ (1996). The same translation process used for OV was taken. Supervisors were asked to report the degree to which each statement applied to his/her

subordinate (1: does not apply to this subordinate at all; 7: applies to this subordinate completely). A CFA was carried out for testing the five-factor model mentioned earlier. Considering the unsatisfactory fit indices (RMSEA: 0.11; GFI: 0.67), standardized residuals and modification indices were analyzed for locating the sources of misspecification. After consideration based on both techniques, 15 items were removed. A reasonably well-fitted, 17-item model emerged (Table III). A single latent factor (all the 17 items loading on a single-factor model) was also tested, the fit indices being unsatisfactory (e.g., RMSEA: 0.16; GFI: 0.70).

Finally, a second-order factor model was tested, the fit indices being reasonably satisfactory. Comparison of the first- and second-order shows a significant change in χ^2 relative to the difference in degrees of freedom ($\Delta\chi^2_{(5)} = 34.74$, $p < 0.001$). However, considering its parsimony, and taking into account the meta-analyses of LePine et al. (2002) and Hoffman et al. (2007), both the first- and second-order factor models were considered for further analysis. In order to get a composite OCB score, the items for each of the five dimensions were averaged to obtain a composite average for each of the five dimensions. Then, the averages for each of the five dimensions were averaged to arrive at a composite OCB score for each employee. Higher scores represent more OCB.

For testing the impact of removing items, we carried out the same procedure used previously with the AWB measure. Considering that, in each comparison (gender, tenure), all except one difference in d are not higher than 0.10, the impact of removing items seems not to be problematic. Correlations between the scores computed with the original versus the final items range between 0.88 and 0.97.

Controlling for clustering the data
For assessing the statistical robustness of aggregating individual scores at the organization level (Bliese, 2000), the intraclass correlations procedure (ICC1) was used. ICC is a measure of within-group consensus, the median value in organizational research being typically 0.12 (James, 1982). For all OV variables, ICC ranges between 0.0 and 0.03, the mean being 0.01. For all AWB variables, ICC ranges between 0.0 and 0.08, the mean being 0.03. For all the OCB dimensions, ICC ranges between 0.01 and 0.15,

the mean being 0.11. These findings suggest that aggregating scores is not justified.

Results

Before testing the hypotheses, we conducted a usefulness analysis (Darlington, 1990) to test whether OV and AWB may be considered as core constructs. Each individual component of each core construct was entered into a regression to predict the criterion variable. Then, overall OV and overall AWB were entered into the regression, the increase in the R^2 value being computed. These results were then compared with the reverse situation. The findings (Table IV) show the following: (a) in all the cases except one (trust versus overall OV predicting AWB), the individual components of OV add no significant variance in predicting AWB and OCB; (b) no individual component of AWB adds variance in predicting OCB. Therefore, in most cases, the core constructs increase the R^2 value above and beyond their respective individual components.

Table V depicts means, standard deviations, and correlations between variables. Firm size correlates positively with age, organizational tenure, and two OCB dimensions, and negatively with schooling. Gender correlates negatively with sportsmanship, with males showing lower scores. Age correlates negatively with sportsmanship, and positively with conscientiousness. Organizational tenure correlates negatively with sportsmanship and positively with conscientiousness and civic virtue. Schooling correlates negatively with AWB, and positively with altruism and sportsmanship. All the OCB dimensions intercorrelate positively. The perceptions of OV correlate positively with AWB, altruism, courtesy, civic virtue, and overall OCB. AWB correlates positively with altruism, sportsmanship, civic virtue, and overall OCB.

The procedure suggested by Baron and Kenny (1986) for testing the mediation effects was used. Firm size, gender, age, organizational tenure, schooling, and marital status were included as control variables. Four criteria are necessary for establishing mediation: (1) perceptions of OV predict OCB; (2) perceptions of OV predict AWB; (3) AWB predicts OCB; and (4) the effect of perceptions of OV on OCB, controlling for AWB, is zero. There is full

TABLE III

Confirmatory factor analysis for OCB (completely standardized solution)

	First-order factor model	Second-order factor model
Altruism	(0.82)	(0.82)
Helps make others more productive	0.66	0.66
Helps others who have heavy work loads	0.79	0.79
Helps others who have been absent	0.70	0.72
Shares personal property with others if necessary to help them with their work	0.75	0.74
Sportsmanship	(0.78)	(0.78)
Is able to tolerate occasional inconveniences when they arise	0.75	0.73
Complains a lot about trivial matters (r)	0.75	0.76
Expresses resentment with any changes introduced by management (r)	0.69	0.69
Thinks only about his/her work problems, not others' (r)	0.56	0.57
Courtesy	(0.74)	(0.74)
Respects the rights and privileges of others	0.73	0.74
Tries to avoid creating problems for others	0.78	0.77
Never abuses his/her rights and privileges	0.63	0.62
Conscientiousness	(0.87)	(0.87)
Is always on time	0.86	0.86
Attendance at work is above average	0.85	0.84
Gives advance notice when unable to come to work	0.79	0.79
Civic virtue	(0.69)	(0.69)
Stays informed about developments in the company	0.67	0.66
Offers suggestions for ways to improve operations	0.54	0.50
Demonstrates concern about the image of the company	0.78	0.81
Overall OCB		(0.77)
Altruism		0.92
Sportsmanship		0.41
Courtesy		0.89
Conscientiousness		0.67
Civic virtue		0.90
Fit indices		
Chi-square	226.35	261.09
Degrees of freedom	109	114
Chi-square/degrees of freedom	2.1	2.3
Root mean square error of approximation	0.07	0.08
Goodness of fit index	0.89	0.88
Adjusted goodness of fit index	0.85	0.83
Comparative fit index	0.92	0.90
Incremental fit index	0.93	0.90
Relative fit index	0.83	0.82

In brackets: Cronbach Alphas.
r reverse-coded items.

mediation if all the criteria are met. There is partial mediation if the effect of AWB on OCB is smaller, when both AWB and OV are considered, than when only AWB is taken into account.

The results are presented in Table VI, showing support for full mediation in predicting sportsmanship, and for partial mediation in predicting altruism and overall OCB. Sobel's (1982) test was also

	AWB	OCB
1. Optimism	0.20★★★	0.05★★★
2. Overall OV	0.04★★	0.01ns
1. Overall OV	0.23★★★	0.06★★★
2. Optimism	0.00	0.00
1. Trust	0.25★★★	0.07★★★
2. Overall OV	0.01ns	0.00
1. Overall OV	0.23★★★	0.06★★★
2. Trust	0.03★	0.01ns
1. Compassion	0.13★★★	0.02★
2. Overall OV	0.10★★★	0.06★★★
1. Overall OV	0.23★★★	0.06★★★
2. Compassion	0.00	0.02ns
1. Integrity	0.15★★★	0.06★★★
2. Overall OV	0.09★★★	0.00
1. Overall OV	0.23★★★	0.06★★★
2. Integrity	0.00	0.00
1. Forgiveness	0.12★★★	0.02★
2. Overall OV	0.12★★★	0.05★★
1. Overall OV	0.23★★★	0.06★★★
2. Forgiveness	0.00	0.01ns
1. Pleasure		0.04★★
2. Overall AWB		0.04★★
1. Overall AWB		0.08★★★
2. Pleasure		0.00
1. Comfort		0.03★
2. Overall AWB		0.05★
1. Overall AWB		0.08★★★
2. Comfort		0.00
1. Placidity		0.04★★
2. Overall AWB		0.04★★
1. Overall AWB		0.08★★★
2. Placidity		0.00
1. Enthusiasm		0.05★★
2. Overall AWB		0.03★
1. Overall AWB		0.08★★★
2. Enthusiasm		0.00
1. Vigor		0.05★★
2. Overall AWB		0.03★★
1. Overall AWB		0.08★★★
2. Vigor		0.00

ns non-significant.

★$p < 0.05$; ★★$p < 0.01$; ★★★$p < 0.001$.

(1) The first line represents the R^2; the second line represents the change in R^2.

(2) Age, tenure, gender, schooling, and marital status were inserted as control variables.

conducted to gain additional support for the mediation model. The test assesses whether the mediating variable (AWB) carries the effects of the independent variable (OV) to a dependent variable (OCB). The resulting statistic measures the indirect effect of the perceptions of OV on OCB by way of AWB. The test supports AWB mediating the relationship between perceptions of OV and altruism ($z = 2.25$; $p < 0.05$), sportsmanship ($z = 3.14$; $p < 0.001$), and overall OCB ($z = 2.58$; $p < 0.01$). Thus, the hypotheses are supported for some OCB dimensions but not for others.

Discussion and conclusions

As hypothesized, employees with more positive perceptions about the organization's virtuousness reveal greater AWB. The finding is consistent with Martin et al.'s finding, (2005) that employees with more positive perceptions of the environment in which they work are more likely to report better adjustment in terms of greater job satisfaction and psychological well-being. Fredrickson (2003) suggested that people who feel grateful for working in virtuous organizations and witness positive interchanges in their workplace may experience positive emotions. Dutton and Heaphy (2003) also argued that ''high-quality connections'' may foster positive emotions, increase the possibility of flow (Csikszentmihalyi, 2003), enable employees to create positive spirals of meaning at work, and cultivate psychological and physical well-being.

AWB predicts some dimensions of OCB and overall OCB, with the perceptions of OV influencing some OCB dimensions both directly and through the mediating role of AWB. The findings are consistent with research (e.g., Wright and Cropanzano, 2000, 2004) which has shown that happy employees show higher performance. They also corroborate Spector and Fox's (2002) hypothesis that emotions mediate the effects of environmental conditions on behavior. As situations, filtered through personal appraisal and perception, induce positive emotion, they affect the likelihood that the individual will choose to perform OCB. The findings are consistent with Bagozzi (2003), suggesting that positive organizational features may influence OCB because organizational identification increases,

TABLE V

Means, standard deviation, and correlations

	Means	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Firm size	74.8	72.0	–												
2. Gender[a]	–	–	-0.13	–											
3. Age	39.6	10.0	0.19**	-0.01	–										
4. Organizational tenure	14.7	11.1	0.22***	-0.05	0.80***	–									
5. Schooling[b]	2.4	1.0	-0.19*	-0.15*	-0.52***	-0.50***	–								
6. Marital status[c]	–	–	0.09	-0.12	0.37***	0.26***	-0.12	–							
7. Overall OV	4.3	0.7	0.09	0.06	0.01	0.01	-0.11	0.11	–						
8. Overall AWB	5.0	0.7	0.10	0.11	0.03	0.09	-0.14*	-0.05	0.49***	–					
9. Altruism	4.9	0.9	0.15*	-0.07	-0.11	-0.04	0.16*	-0.08	0.25***	0.19**					
10. Sportsmanship	5.0	1.0	-0.07	-0.15*	-0.26***	-0.35***	0.21**	-0.11	0.12	0.19**	0.37***				
11. Courtesy	5.3	1.0	0.11	-0.02	-0.00	0.03	-0.03	-0.01	0.16*	0.11	0.61***	0.34***			
12. Conscientiousness	5.8	1.1	0.12	-0.07	0.20**	0.24***	-0.04	0.04	-0.02	0.07	0.47***	0.21**	0.59***		
13. Civic virtue	4.7	0.9	0.15*	0.02	0.08	0.24***	0.08	0.00	0.24***	0.13*	0.68***	0.09	0.47***	0.36***	
14. Overall OCB	5.1	0.7	0.13	-0.08	-0.02	0.04	0.10	-0.04	0.20**	0.18**	0.84***	0.56***	0.83***	0.74***	0.69***

*p < 0.05; **p < 0.01; ***p < 0.001.

[a]Female: 0, male: 1.

[b]1: six schooling years, 2: 9 years, 3: 12 years, 4: university degree.

[c]0: unmarried, 1: married.

TABLE VI

Hierarchical regression analyses: how OV predicts OCB through the mediating role of AWB

	Altruism	Sportsmanship	Courtesy	Conscientiousness	Civic virtue	Overall OCB	AWB
First step							
Firm size	0.20★★	0.02	0.13	0.10	0.16★	0.17★	0.12
Gender[a]	−0.05	−0.15★	−0.01	−0.04	0.07	−0.05	0.08
Age	−0.14	0.15	0.02	0.10	−0.23	−0.01	−0.09
Organizational tenure	0.11	−0.48★★★	−0.06	0.18	0.51★★★	0.06	0.08
Schooling[b]	0.17	0.03	−0.03	0.11	0.26★★	0.14	−0.13
Marital status[c]	−0.09	−0.05	−0.03	−0.05	−0.03	−0.07	−0.03
F	2.93★★	6.27★★★	0.60	2.14★	5.32★★★	1.60	1.44
R^2	0.09	0.17	0.02	0.07	0.15	0.05	0.05
Second step							
Firm size	0.17★	0.01	0.11	0.10	0.13	0.14	0.06
Gender	−0.07	−0.16★	−0.02	−0.04	0.06	−0.06	0.06
Age	−0.09	0.17	0.05	0.09	−0.19	0.02	−0.02
Organizational tenure	0.10	−0.49★★★	−0.07	0.18	0.50★★★	0.05	0.07
Schooling	0.21★	0.05	0.00	0.10	0.30★★★	0.17★	−0.06
Marital status	−0.13	−0.07	−0.06	−0.05	−0.07	−0.10	−0.10
OV	0.28★★★	0.14★	0.18★	−0.03	0.29★★★	0.23★★	0.48★★★
F	5.01★★★	6.04★★★	1.39	1.84	7.64★★★	2.83★★	9.27★★★
R^2	0.16	0.19	0.05	0.07	0.25	0.10	0.27
R^2 change	0.07	0.02	0.03	0.00	0.08	0.05	0.22
Third step							
Firm size	0.16★	−0.01	0.11	0.09	0.12	0.13	
Gender	−0.08	−0.17★	−0.03	−0.04	0.06	−0.08	
Age	−0.09	0.18	0.05	0.10	−0.19	0.03	
Organizational tenure	0.09	−0.50★★★	−0.07	0.17	0.50★★★	0.04	
Schooling	0.22★★	0.06	0.00	0.11	0.30★★★	0.19★	
Marital status	−0.11	−0.05	−0.05	−0.03	−0.07	−0.08	
OV	0.19★	0.02	0.15	−0.10	0.25★★	0.13	
Overall AWB	0.18★	0.26★★★	0.07	0.14	0.08	0.21★★	
F	5.15★★★	7.00★★★	1.30	2.00★	6.81★★★	3.35★★	
R^2	0.19	0.24	0.05	0.08	0.23	0.13	
R^2 change	0.03	0.05	0.00	0.01	0.00	0.03	

★$p < 0.05$; ★★$p < 0.01$; ★★★$p < 0.001$.
[a]Female: 0, male: 1.
[b]1: six schooling years, 2: 9 years, 3: 12 years, 4: university degree.
[c]0: unmarried, 1: married.

leading to positive feelings which, in turn, induce employees to perform extra-role behaviors that benefit themselves and the organization.

Another important consideration is that, contrary to what the meta-analyses of LePine et al. (2002) and Hoffman et al. (2007) indicated, our findings suggest that regarding the several OCB dimensions separately is necessary, because they relate differently with control (e.g., age; tenure; Table V) and independent variables (Tables V, VI). Specifically, mediating effects were not found in predicting courtesy, conscientiousness, and civic virtue. Regarding consci-

entiousness, the mediating effect was not found because neither the perceptions of OV or AWB predict this dimension (Table VI, second step). One possible explanation is that conscientiousness is more likely to be an in-role than an extra-role behavior (Vey and Campbell, 2007). Thus, people may adopt such behavior, not because they feel happy and more or less inclined to respond positively and reciprocally to the virtuous features of their organizational climate, but because they feel compelled to perform in-role or mandatory behaviors. Regarding courtesy and civic virtue, the mediating effect was not found because AWB do not predict these dimensions, after controlling the effects of the perceptions of OV (Table VI, third step). Future studies must test whether other variables other than AWB act as mediators between the perceptions of OV and these both OCB dimensions. This evidence shows that the discussion about using OCB dimensions separately instead of as representative of a core construct remains open to debate.

A final issue worthy of attention relates to antecedents and/or facilitators of OV. Future studies must test, for example, what types of corporate culture and human resource management practices promote better OV climates. One may wonder, for example, whether a market orientation culture (Quinn and Rohrbaugh, 1983) is a weaker facilitator than a clan-type culture. However, such effect may be moderated by the societal and business contexts. For example, the moral and financial scandals emerging in recent years around the world likely have made (a) the consumers more sensitive to how the firms act in terms of virtuousness and ethics and (b) the managers more prone to encourage virtuous practices in their organizations to get competitive advantages. One interesting question to explore in future studies is to test whether OV promoted by instrumental/market motives produces the same effects on the several firms' stakeholders than OV promoted by normative reasons. Future studies must also test the degree to which the broad cultural context influences how the firms' stakeholders value the several dimensions of OV and react toward them (Branzei et al., 2007; Gelfand et al., 2007). For example, are the employees, from feminine and in-group collectivist cultures (similar to the case of Portugal; Hofstede, 1991; Jesuino, 2002), more sensitive to the compassion and forgiveness features

of their organizational climates than are those of masculine cultures? Do organizations of the former cultures have stronger compassion and forgiveness climates than do the latter?

Implications for management

Promoting a psychologically happy workforce is a valuable goal in itself, as the "positive organizational scholarship" (Caza and Cameron, 2008) and the "economics of happiness" (Graham, 2005) movements suggest. It is also a way to promote important behaviors (e.g., OCB) for organizational functioning and performance. Many scholars (e.g., Jaffee, 1995; Kets de Vries, 2001) have recognized that employee and organizational health and well-being are not antithetical. Spector and Fox (2002) argued that designing the organization to avoid bad feelings and enhance good feelings might, in the long run, produce both employee and organizational well-being. They advocated that organizational policies and practices should be designed according to their possible effects on employees' happiness. Grant et al. (2007) also discussed extensive evidence indicating that employee well-being has a significant impact on organizational performance and survival.

Our findings corroborate evidence showing that employees with positive perceptions about OV develop higher AWB and adopt more OCB. They suggest that, for building virtuous psychological climates and promoting individual and organizational functioning, managers should care about how employees perceive the organization, paying attention to a number of aspects: (a) the sense of purpose that managers and employees in general invest in their decisions and policies; (b) the capacity to create and sustain optimism, even when major challenges and difficulties are faced; (c) a respectful, trustful, courteous, and compassionate way of acting; (d) a clear orientation for integrity and honesty; (e) a strong focus on getting results and avoiding errors, and having a capacity to forgive (honest) errors and learn from them in order to continuously improve. Haller and Hadler (2006) pointed out that the people's subjective perception and evaluation are more significant for psychological well-being, not so much the objective situation itself. Thus,

managers must act to influence employees' perceptions, not only to change the work environment. These are the reasons to follow Parker et al.'s (2003) recommendation that psychological climate assessments should be part of interventions attempting to reduce employee turnover and improve motivation and performance.

Such a recommendation does not mean that the mere management of perceptions is enough or recommendable. Leaders and organizations risk exacerbating employee cynicism if they adopt a facade of virtuousness without substance (Grant et al., 2007; Rego and Cunha, 2008a). A consequence of this may be to encourage employees to perform only what they are "forced" to do, and increase retaliation and counterproductive work behaviors (Andersson and Bateman, 1997; Avey et al., 2008; Dean et al., 1998). "Managing" perceptions is necessary but not enough to promote a healthy and virtuous workplace. Managers and organizations must be aware of employees' perceptions and be willing to make adjustments accordingly, but they should not focus solely on employees' perceptions – rather they must actively operate upon the sources of OV and health, the most effective way to generate positive perceptions. OV needs to be practiced and continuously sustained, especially when virtues are put to the test (Aristotle, 1999).

Limitations and future research

The study does not examine the causal links between dependent and independent variables, nor other causal links that are plausible. For example: (a) employees' AWB may influence their perceptions of organizational features (Brief and Weiss, 2002), rather than the other way around; (b) OCB may promote social capital (Bolino et al., 2002), induce positive reactions in the receivers, and thus promote OV; (c) performing a citizenship act may induce positive emotions of pride and accomplishment (Fredrickson, 2003; Miles et al., 2002); (d) employees may adopt OCB because they anticipate/expect the positive emotions that will likely result from helping colleagues and acting kindly to them (Baumeister et al., 2007); (e) a supervisor may report more OCB regarding his/her subordinates not because they really adopt more OCB but because the subordinate's positive emotions improve the quality of leader–member exchange and/or create a halo effect that leads the supervisor to be more benevolent when reporting OCB.

Post-hoc rationalizations can also explain some findings (e.g., people who feel good during recent months in the organization, may cognitively "reciprocate," attributing virtuous features to the organization, regardless of the "real" organizational characteristics). By virtue of carried out at a single moment, the study does not capture the dynamics that occur over the course of time involving reciprocal relationships and upward and downward spirals (Fredrickson, 2003) between the organization and its members. Future longitudinal studies may be carried out to study this factor. Research diaries may also be a particularly appropriate tool for gathering data in future studies, especially for studying the effects of daily events on moods and emotions (Fisher, 2002).

Only AWB was tested as mediating variable. Future studies may use other mediating variables, such as perceived organizational support, reciprocation, psychological contracts, organizational identification, sense of community at work, and organization-based self-esteem. Another limitation is that improving the AWB measurement instrument properties required dropping several items, a finding already obtained in other studies (Rego and Cunha, 2008a, 2009a, b; Rego et al., 2009). Although the findings (e.g., the *d* statistic for comparing groups with the full versus the short version) suggest that item removal is not problematic, one must not discard the possibility that dropping items might have reduced the content coverage of the construct domain. Future studies must improve the AWB measurement instrument or use another one.

Moderating variables were not included. Future studies may test, for example, the degree to which some personal characteristics (e.g., positive and negative affect, psychological capital, propensity to trust, personal virtues, and strengths such as gratitude, forgiveness, compassion, love, kindness, and honesty) moderate the relationships between perceptions of OV and the dependent variables. For example, are individuals with higher scores on gratitude, compassion, and forgiveness less/more sensitive to perceptions of OV? The fit between the employees' preferences for virtuousness and the

current organizational situation may also be examined for testing whether, for example, a misfit produces greater stress, lower AWB, and less OCB (Hoffman and Woehr, 2006).

Future studies may also investigate antecedents of OV such as leadership behaviors (e.g., authentic leadership) and human resources practices and policies. Considering the great amount of literature on the antecedents of OCB, future studies may also investigate how such antecedents interact with perceptions of OV in predicting OCB. Studying OCB and OV at the organizational level is also a valuable endeavor that future studies may advance. This will allow crossing different levels of analysis and studying, for example, how individuals with different traits and dispositions react differently to the same (aggregated) organizational features. It would be interesting to investigate how OV influences organizational performance through the mediating role of (the aggregated) OCB and/or other mediating variables.

Another important limitation is that the OV measure includes items that are similar to established constructs such as trust, justice, perceived organizational support, and ethical climates. One must note that OV, as a core construct, is different from such constructs. Furthermore, compassion, forgiveness, and optimism, as perceived organizational features, have been understudied. In any event, future research must study the incremental validity of OV above and beyond such related constructs. Finally, the study is based on a convenience sample collected in a single region, the range of industries is small, and just small and medium firms are included. Future studies must collect data from a more diverse sample and test whether the relationships found here are, or are not, contingent on the organizational size and industry type.

Concluding remarks

Despite the above criticisms, our study advances three important points: (1) organizations and leaders can promote employees' AWB and OCB if they improve (in a genuine and sustainable way) the perceptions of their employees regarding OV; (2) this may produce good results, considering that AWB and OCB are associated with individual and organizational performance; (3) encouraging perceptions of OV and

employee happiness is not only virtuous but also a way to promote individual and organizational health. Our study supports Fredrickson's (2003) observation that efforts to foster positive emotions may help organizations to avoid stagnation and evolve to better states of psychological energy. By observing virtuous actions in their organizations, employees may find meaning at work, experience well-being, adopt citizenship behaviors, and actively participate in the construction of healthy and virtuous organizations. In short, when organizational members flourish, organizations also flourish, and spirals of mutual reinforcement between such entities may emerge.

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