J Bus Psychol
DOI 10.1007/s10869-009-9125-1

Developing and Validating a Quantitative Measure of Organizational Courage

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Abstract
Purpose To present the Organizational Courage Assessment (OCA) and explore its construct validity.
Design/Methodology/Approach The OCA assesses the frequency that members (1) *observe* potential acts of courage in their organization and (2) *fear* performing those acts of courage—which defines four types of organizations: bureaucratic organizations (little fear with few acts of courage), fearful organizations (much fear with few acts of courage), courageous organizations (many acts despite much fear), and quantum organizations (many acts with little fear).
Findings Our study validated OCA's two-factor solution (internal validity) and statistically supported our research model that linked courage assessments to perceptions of an organization's environment, structures, roles, cultures, climates, performance, and satisfaction (external validity).
Implications While acting courageously works in the short term (and seems, at first, to be ideal), it nevertheless requires members to live with fear on an ongoing basis. Members acting without fear, however, might be the most effective approach in the long term. The OCA can thus be used as a diagnostic tool for assessing organizations (and its subunits) as bureaucratic, fearful, or courageous and then conducting change programs to reduce fear while empowering the membership—thereby creating quantum organizations for long-term success.
Originality/Value This is the first known study to develop a quantitative assessment of organizational courage. Rather than relying on time-consuming interviews or questionable anecdotal information, it is now possible to proceed with a great variety of research studies (and change programs) with a valid—and useful—instrument.

Keywords Courage · Fear · Organizational development · Quantum organizations · Emotions · Contagion

Introduction

The view that organizations are rational systems has recently been expanded to include the role that emotions play in organizational success (Goleman et al. 2002). The activation and spread of emotions can either facilitate or undermine the so-called rational pursuits of individuals and their organizations (Hatfield et al. 1994; Pugh 2001). One human emotion of interest is courage. Many courageous acts took place during and after the tragedy of 9/11 (Rutledge 2002). Additionally, it took courage to make public the recent corruption in organizations (Lacayo and Ripley 2002). Acts of courage might have a dramatic impact on employees and the long-term success of an organization.

Numerous authors have developed definitions of courage—however, there is still very little agreement about the

This paper is based on a poster session presented at the annual meeting of the Society for Industrial and Organizational Psychology, April 2007.

Received and reviewed by former editor, George Neuman.

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Published online: 25 July 2009

concept (see Lopez et al. 2003 for a review). Based on definitions by Worline et al. (2002) and Shelp (1984), we define a courageous act in an organization as including five essential properties: (1) free choice in deciding whether to act (versus being coerced); (2) significant risk of being harmed; (3) assessment that the risk is reasonable and the contemplated act is considered justifiable (not foolhardy); (4) pursuit of worthy aims; and (5) proceeding with mindful action despite fear. This definition recognizes that courage involves emotion, cognition, and action in which a person risks harm in pursuit of a noble purpose.

Worline et al's. (2002) research suggests that when members observe other employees taking chances for the benefit of their organization and succeeding with their actions, these members expand their beliefs about what is possible to do (Nemeth and Chiles 1988). They may experience feelings of moral elevation and want to behave in an elevated way themselves (Haidt 2003). However, when members observe other employees taking chances and their actions result in receiving the feared negative consequences, the members restrict their beliefs about what is possible to do (Cavanagh and Moberg 1999). Such critical incidents (either positive or negative) observed by organizational members become widely shared via interpersonal exchanges and organizational stories (McConkie and Boss 1986; Wilkins 1984). Consequently, acts of courage are contagious: the positive and negative effects of courageous acts are felt far beyond the original incident (Kelly and Barsade 2001; Pugh 2001). Worline et al. (2002) believe whenever someone challenges cultural norms, strong emotions arise due to the perceived threat of harm to one's self or one's co-workers. These strong emotions propel the spread of courageous stories (both positive and negative) and are instrumental in imprinting the morals of these stories into the cultural history of the organization (Walsh and Ungson 1991). Thus, the culture for performing courageous acts (or not) will be embedded within the organization.

Measuring Organizational Courage

Despite all the recent interests in emotions and courage in the workplace (Ashkanasy et al. 2000; Lord et al. 2002), valid and useful assessments of organizational courage are not yet available. Recent efforts are based predominantly on storytelling, case studies, self-reports of the intention to act courageously, interview methods, or questionable instruments (e.g., value surveys) that are not specifically developed for the definition noted above (Lopez et al. 2003; Woodard 2004; Worline et al. 2002). The purpose of this study is to develop a quantitative assessment of organizational courage—the Organizational Courage Assessment (OCA)—that recognizes the potential harm that members must consider while attempting to achieve worthy ends and includes the emotional, cognitive, and action components of an integrated definition of organizational courage.

Special Issues in Measuring Courage

The literature suggests that it is unusual for people to attribute courage to themselves, while it is easy for them to describe acts of courage performed by others (Worline et al. 2002). Consequently, we decided to ask respondents to report acts of courage they saw others perform in their organization or work unit. This approach also helps minimize the social desirability response bias: for certain attributes or emotions, it might be more socially desirable for respondents to be humble. For example, as heard by the firefighters of 9/11, "I was only doing my job." Furthermore, they may tend to describe their own behavior as not courageous when they would have judged the very same act as courageous if others performed it. Most important, by asking respondents to report on their observation of courageous acts performed by other employees, the concept of courage becomes an organizational phenomenon and not just an individual virtue (Cavanagh and Moberg 1999). This organizational/individual dichotomy is especially relevant to our construct since courage is socially contagious: courage has impact through the feelings of moral elevation in the members who witness the acts (Haidt 2003), and through social exchanges and organizational stories (Hatfield et al. 1994; McConkie and Boss 1986).

A Comprehensive Framework for Construct Validation

To develop a valid assessment of organizational courage, we used the framework suggested by Loevinger (1967), which integrates the notions of reliability and construct validity formulated by Peak (1953), Cronbach and Meehl (1955), and Campbell (1960). Loevinger (1967) identified three components of construct validity—substantive, structural, and external validity.

Following the guidelines for substantive validity (Loevinger 1967), we generated a pool of more than 100 items describing possible acts of courage in organizations. Based on feedback from faculty colleagues and business students with work experience, we pruned the list to 20 items. To retain a key element of courage—acting despite fear—we designed the instrument as having two parts: (1) observing acts and (2) fearing acts. Each part includes the same acts of courage. For example, a sample item from Part I is "I have observed people refusing an assignment that involved doing something ethically or morally wrong."

The parallel item from Part II is "How afraid would people be of refusing an assignment that involved doing something ethically or morally wrong?"

The scale for Part I ranges from 0 (*never observed*) to 4 (*regularly observed or not needed*). Instructions to the respondents include the following: "…..if this act is not needed in your organization because people are already doing what is necessary for the long-term success of their organization and the well being of its members, circle 4 (*Not Needed*), the identical number as *Regularly Observed*." It is important to remember that a crucial ingredient in defining an act of courage concerns the pursuit of worthy ends (e.g., organizational success). Two perspectives are especially relevant to assessments of courage when members engage in acts that are intended to achieve organizational success: (1) Do the observed acts go against official policies, procedures, and practices (which will invoke fear of receiving negative consequences)? (2) Are the observed acts supported by official policies, procedures, and practices (which would not be accompanied by fear of being harmed)? The first perspective is an act of courage; the second perspective is not; but both perspectives promote organizational success and, therefore, both types of acts are value-added contributions to an organization. Consequently, defining the upper end of the Observe scale as "regularly observed or not needed" captures the two sides of the organizational-success coin. An important implication of this is that organizations can design systems and processes that support effective behavior and, therefore, are suitable—if not preferable—substitutes for courageous behavior. Part II scores vary from 0 (*not afraid*) to 4 (*extremely afraid*). Since we are attempting to assess the extent to which organizational members observe and fear acts of courage (Loevinger's criterion for structural validity), *Observe* and *Fear* scores are calculated by summing a respondent's ratings.

A sample of 208 working students was used to explore the factor structure via principal component analysis, varimax rotation. A two-factor solution supported the two-part format of our instrument. The alpha coefficients (.91 and .86 for the Fear and Observe scores, respectively) indicate high internal consistency (Nunnally 1967). Moreover, the two scores were uncorrelated ($r = -.03$, *ns*), which indicates that the two factors represent independent dimensions.

A Model and Theory of Organizational Courage

As noted in Fig. 1, the two orthogonal dimensions enabled us to define four types of organizational experiences with courage: (1) The *courageous organization* (high observed acts, high fear) is identified by members who observe potential acts of courage that can subsequently be defined as actual acts of courage because these acts take place despite fear. (2) The *fearful organization* (low observed acts, high fear) is identified by members who are overcome by the fear of being harmed and do not act. (3) The *bureaucratic organization* (low observed acts, low fear) is identified by members who neither observe acts of courage nor fear being harmed; they have resigned themselves to following the rules. (4) The *quantum organization* (high observed acts, low fear) is identified by members who either observe potential acts of courage (but not actual acts of courage, since fear is not present) or believe that such acts are not needed in their organization; their organization already supports doing what is in the best interests of key stakeholders (Kilmann 2001). Figure 2 presents our research model: an organization's external environment, its climate and culture, and its formal and informal systems can either support members in providing what is needed for organizational success or generate fear that discourages members from providing value-added contributions.

To operationalize our theory, we included a number of measures because they were theoretically associated with our research model and had been used successfully in prior studies. Scales included were Khandwalla's (1976) Environmental Hostility and Environmental Turbulence; O'Reilly et al's. (1991) Innovation and Risk Taking; Hage and Aiken's (1967) Hierarchy of Authority, Job Codification, and Rule Observation; Denison and Mishra's (1995) Cultural Traits; Ashkanasy and Nicholson's (2003) Climate of Fear; Scott and Bruce's (1994) Support for Innovation;

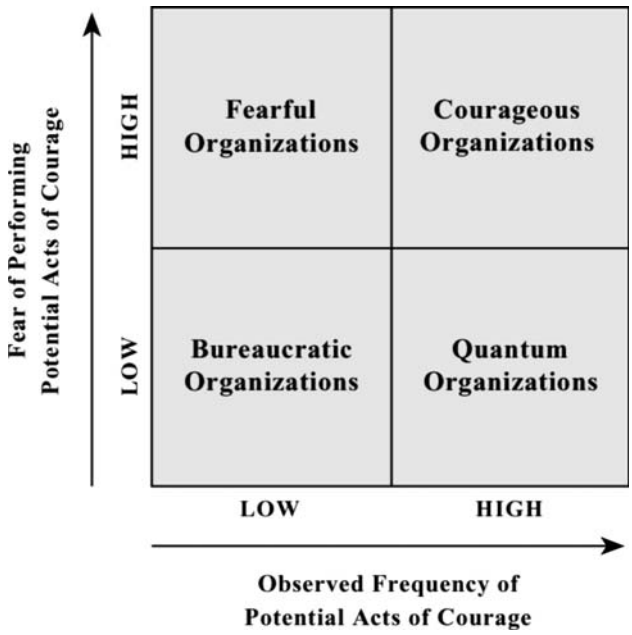

Fig. 1 Four types of organizational experiences with courage

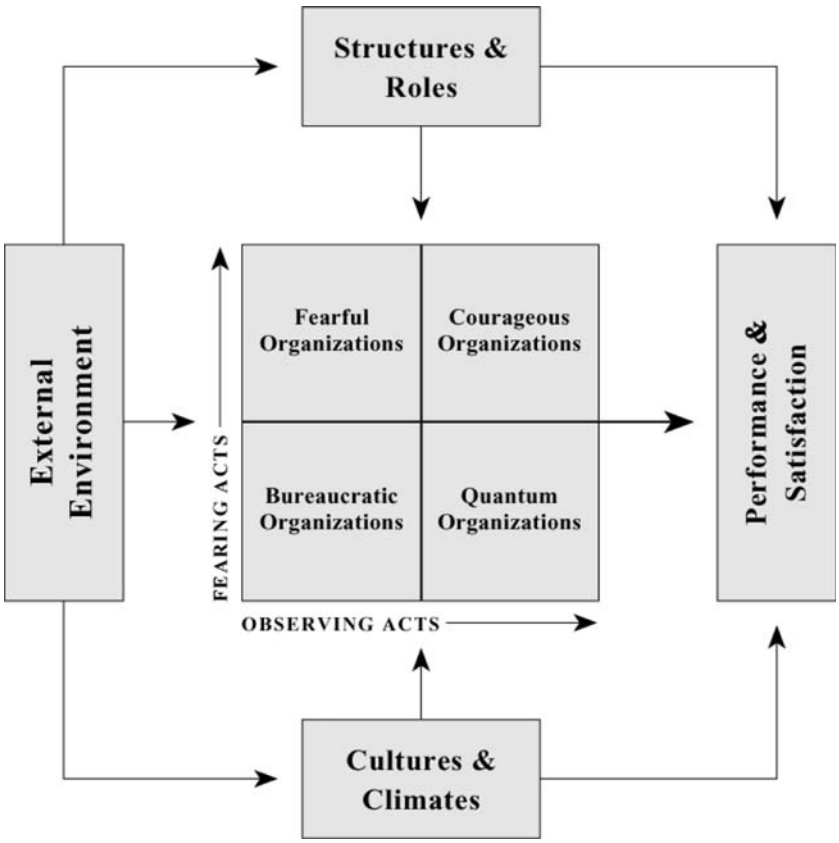

Fig. 2 A nomological network of organizational courage

Eisenberger et al's. (1997) Job Satisfaction; Seltzer and Numerof's (1988) Burnout; Eisenberger et al's. (1986) Perceived Organizational Support; Robinson's (1996) Trust in Management; and Menon's (2001) Empowerment Dimensions. We also included our own measure of perceived organizational performance that included overall performance, growth in sales or services, overall reputation, ability to attract the best people, customer satisfaction, and potential for long-term success. Following are five hypotheses (with three subsets) based on our research model.

Hypothesis 1 The more that the external environment is perceived as turbulent and hostile, (a) the more that members will observe potential acts of courage and (b) the more that members will fear the consequences of engaging in acts of courage; (c) members of quantum organizations will perceive more turbulence and hostility in their external environment than members of bureaucratic, fearful, and courageous organizations.

Hypothesis 2 The more that the structures and roles of the organization are perceived as prescribed, rigid, monitored, and controlled, (a) the less that members will observe potential acts of courage and (b) the more that members will fear the consequences of engaging in acts of courage; (c) members of quantum organizations will perceive the structures and roles of their organization as less prescribed, rigid, monitored, and controlled than members of bureaucratic, fearful, and courageous organizations.

Hypothesis 3 The more that the cultures and climates inside the organization are perceived by members as involved, consistent, adaptable, and mission oriented, (a) the more that members will observe potential acts of courage and (b) the less that members will fear the consequences of engaging in acts of courage; (c) members of quantum organizations will perceive the cultures and climates of their organization as more involved, consistent, adaptable, and mission oriented than members of bureaucratic, fearful, and courageous organizations.

Hypothesis 4 (a) The more that potential acts of courage are observed in their organization, the more that members will perceive their organization as performing better than its competitors on overall performance, growth in sales or services, overall reputation, ability to attract the best people, customer satisfaction, and potential for long-term success; (b) the more that members fear the consequences of engaging in acts of courage, the more that they will perceive their organization as performing worse than its competitors; (c) members of quantum organizations will perceive higher levels of performance than members of bureaucratic, fearful, and courageous organizations.

Hypothesis 5 (a) The more that potential acts of courage are observed in their organization, the more satisfied, trusted, supported, inspired—and less burned out members will feel; (b) the more that members fear the consequences of engaging in acts of courage, the less satisfied, trusted, supported, inspired—and the more burned out they will feel; (c) members of quantum organizations will feel more satisfied, trusted, supported, inspired—and less burned out—than members of bureaucratic, fearful, and courageous organizations.

Method

Participants

The sample included 171 undergraduate and graduate students from a large public university in the Southwestern US who were not included in the exploratory analysis. The sample was 44% female, 55% non-white, averaged 24.6 years of age, and averaged 2.8 years of full-time work experience.

Procedure

The OCA was part of a voluntary exercise. Students signed an informed-consent document; anonymity was assured. The OCA was completed first followed by the randomly ordered research scales.

Analysis

Table 1 shows the descriptive statistics, Cronbach alpha coefficients, and correlations of the separate scales with the OCA Observe and Fear scores. In order to devise an efficient, non-redundant simplification of the many research

Table 1 Descriptive statistics, correlations with observe and fear scores, and varimax rotated component loadings ($N = 169$)

Scale	α	*M*	SD	Observe	Fear	Perf.	Satis.	Struc.	Cult.	Env.
Observe	.85	39.36	12.47							
Fear	.90	32.79	13.55	−.03						
Overall reputation	_	3.80	1.10	.07	−.19*	**.81**	.12	.16	.15	.07
Growth in sales or service	_	3.49	1.14	.14	−.12	**.80**	.14	−.01	.23	.07
Potential for long-term success	_	3.84	1.16	.15*	−.15	**.79**	.26	.09	.12	.03
Ability to attract the best people	_	3.40	1.26	.14	−.24**	**.75**	.29	.11	.15	.08
Customer satisfaction	_	3.62	1.07	.25**	−.23**	**.71**	.03	.35	.22	.12
Overall performance	_	3.75	1.02	.17*	−.23**	**.70**	.36	.04	.25	.06
Job satisfaction	.90	4.66	1.69	.18*	−.18*	.23	**.79**	.04	.18	.01
Burnout	.94	2.48	1.67	−.07	.33**	−.31	**−.71**	−.23	−.09	.12
Trust in management	.90	3.59	1.01	.19*	−.35**	.36	**.65**	.25	.32	−.11
Perceived organizational support	.87	4.50	1.33	.28**	−.36**	.23	**.60**	.39	.38	.00
Goal internalization	.86	3.63	1.30	.26**	−.19*	.24	**.52**	.24	.40	.10
Climate of fear	.81	3.11	.93	−.20**	.39**	−.14	−.42	−.41	−.34	.21
Hierarchy of authority	.85	2.29	.75	−.10	.32**	−.09	−.10	**−.83**	−.06	−.01
Support for innovation	.64	3.01	.95	.22**	−.20**	.17	.17	**.72**	.06	.07
Perceived control	.86	4.08	1.24	.16*	−.13	.20	−.09	**.71**	.18	.02
Rule observation	.75	2.22	.95	−.08	.21**	−.05	−.42	**−.60**	.06	−.03
Job codification	.66	2.64	.58	−.17*	.13	.06	−.30	**−.50**	−.11	.02
Cultural consistency	.63	4.46	1.39	.21**	−.27**	.23	.22	.08	**.77**	−.16
Cultural involvement	.71	4.17	1.50	.30**	−.23**	.12	.35	.20	**.72**	.07
Cultural adaptability	.69	3.92	1.49	.21**	−.16*	.25	−.03	.18	**.68**	.33
Cultural mission	.80	4.82	1.51	.16*	−.32**	.37	.23	−.04	**.67**	.05
Environmental turbulence	.63	3.98	1.13	.19*	−.03	.23	−.14	.03	.09	**.83**
Innovation and risk taking	.84	4.00	1.54	.34**	−.15	.31	.39	.15	.17	**.59**
Environmental hostility	.56	3.43	1.19	−.08	.06	−.47	−.16	−.11	−.14	**.54**

Note: Dashes indicate α was not applicable for a single item scale. Factor scores were created from the scales listed in bold under the factor headings

Perf. performance, *Satis.* satisfaction, *Struc.* structures & roles, *Cult.* cultures & climates, *Env.* external environment

* $p < .05$; ** $p < .01$

scales included in our study (not including the OCA), we investigated their underlying factor structure using a principal component analysis with varimax rotation. Ford et al.'s (1986) multiple criteria for exploratory factor analysis were used to select the best factor structure. The resulting five-factor solution effectively organized all the scales (except one as noted below) into the same essential categories of our research model that we labeled as (1) Performance, (2) Satisfaction, (3) Structures and Roles, (4) Cultures and Climates, and (5) External Environment. Table 1 also shows the factor loadings of the five-factor solution. Factor loadings above .50, our cutoff point for including a scale in a factor, are presented in bold type. Ashkanasy and Nicholson's (2003) Climate of Fear scale did not meet the .50 factor-loading cutoff nor did it uniquely load on any single factor. Therefore, it was not used in our subsequent statistical analysis in order to reduce intercorrelation of the factors. However, as expected, the scale was positively related to the OCA Fear score ($r = .39$, $p < .01$) and negatively related to the Observe score ($r = -.20$, $p < .01$).

Secondary Sample, Procedure, and Analysis

We collected data to test the temporal stability of the OCA via a traditional test-retest procedure. Seventy-four students completed the OCA twice, with approximately 2 weeks between the administrations. Students were asked to focus on the same organization (in which, presumably, there was no change in addressing courage issues within this time period). The test–retest correlation coefficients for the Observe and Fear scores were $r = .81$ ($p < .001$) and $r = .88$ ($p < .001$), respectively, which supports the temporal stability of the OCA.

Results

Before testing our hypotheses, we examined whether our exploratory two-factor solution of organizational courage was replicated with the data we collected in our study ($n = 171$). We performed a confirmatory factory analysis using AMOS 5, maximum likelihood estimation. The hypothesized model included the 20 observed acts loading on an Observe factor and the 20 feared acts loading on a Fear factor, with no correlation between the factors. The independence model that tests whether all variables are uncorrelated could easily be rejected: χ^2 (780, $n = 171$) = 2,681.12, $p < .001$, GFI = .38, RMSEA = .12. The hypothesized model that tests the viability of the two-factor solution from our exploratory study received moderate support: χ^2 (740, $n = 171$) = 1,258.25, $p < .001$, GFI = .74, CFI = .73, RMSEA = .06. All hypothesized loadings were significant at $p \leq .001$. The alpha coefficients were .85 for the Observe score and .90 for the Fear score (compared to .86 and .91 in the exploratory study). The correlation coefficient between the two factors was identical to the exploratory study ($r = -.03$, *ns*). Based on this replication of results, there is no reason to modify the factor structure of the OCA, the graphical model in Fig. 1, or the research model in Fig. 2.

The statistical tests of our research hypotheses are summarized in Tables 2, 3. Results for the *a* and *b* subsets are shown in the correlation coefficients in Table 2 (which also includes the Cronbach alpha coefficients of internal consistency for the five research-scale factors). Results for the *c* subset (which examines the differences between quantum organizations and the other types of organizations) are shown in the contrast tests in Table 3. For clarity in sorting respondents into one of the four types of organizations (based on their Observe score and Fear score on the OCA), we eliminated those cases in which the respondents' scores fell on the median line of either one or both scales, thereby reducing the sample size to 147. What we lost in sample size, however, we gained in achieving greater accuracy in classifying the four types of organizations.

Hypothesis 1 regarding the external environment is partially supported. Hypothesis 1a is statistically significant ($r = .23$, $p < .01$), but 1b is not. While a more turbulent and hostile environment is associated with members observing more potential acts of courage, such an environment is not associated with members anticipating fear of engaging in acts of courage. Hypothesis 1c is supported ($t(143) = 2.46$, $p < .05$): members of quantum organizations perceive more environmental turbulence and hostility than members of bureaucratic, fearful, and courageous organizations.

Hypothesis 2 regarding the structures and roles of the organization is supported. Both 2a and 2b are statistically significant ($r = -.20$, $p < .01$ and $r = .27$, $p < .01$, respectively). Members who perceive their jobs as more prescribed, rigid, monitored, and controlled observe fewer acts of courage and anticipate more fear of engaging in acts of courage. Hypothesis 2c is also statistically significant ($t(143) = -3.29$, $p < .001$): members of quantum organizations perceive the structures and roles of their organization as less prescribed, rigid, and controlled than members of bureaucratic, fearful, and courageous organizations.

Hypothesis 3 regarding the cultures and climates of the organization is supported ($r = .27$, $p < .01$ and $r = -.31$, $p < .01$, for 3a and 3b, respectively). Members who perceive the internal environment of their organization as more involved, consistent, adaptable, and mission-oriented, observe more acts of courage and

Table 2 Intercorrelations between factor scores ($N = 169$)

Factor	1	2	3	4	5	6	7
1. Observe	(.85)						
2. Fear	−.03	(.90)					
3. Performance	.18*	−.23**	(.91)				
4. Satisfaction	.24**	−.34**	.60**	(.88)			
5. Structures & roles	−.20**	.27**	−.34**	−.51**	(.76)		
6. Cultures & climates	.27**	−.31**	.57**	.61**	−.33**	(.81)	
7. External environment	.23**	−.06	.15*	.04	−.07	.15*	(.40)

Note: Values on the diagonal in parentheses are alpha coefficients of internal consistency

* $p < .05$; ** $p < .01$

Table 3 Means & standard deviations for the four types of organizations with contrast test results and effect sizes ($N = 147$)

Hypothesis	Bureaucratic $N = 37$		Fearful $N = 40$		Courageous $N = 34$		Quantum $N = 36$		t[a]	d
	M	SD	*M*	SD	*M*	SD	*M*	SD		
(1c) External environment	−.13	.77	−.16	.64	.13	.61	.26	.61	2.46*	.41
(2c) Structures & roles	.12	.76	−.01	.75	.16	.68	−.36	.63	−3.29***	.55
(3c) Cultures & climates	−.08	.67	−.30	.80	−.24	.88	.45	.65	4.56***	.76
(4c) Performance	−.03	.79	−.14	.79	−.16	.95	.34	.60	2.93**	.49
(5c) Satisfaction	−.03	.62	−.15	.87	−.31	.84	.54	.58	5.77***	.83

[a] All contrast tests assume equal variances with $df = 143$, except for satisfaction with $df = 78.74$ for unequal variances

* $p < .05$; ** $p < .01$; *** $p < .001$

anticipate less fear of engaging in acts of courage. Hypothesis 3c is also supported ($t(143) = 4.56$, $p < .001$): members of quantum organizations perceive the cultures and climates of their organization as more involved, etc., than members of bureaucratic, fearful, and courageous organizations.

Hypothesis 4 regarding performance is supported ($r = .18$, $p < .05$ and $r = -.23$, $p < .01$, for 4a and 4b, respectively). Members who observe more acts of courage and anticipate less fear of engaging in acts of courage perceive their organization as better than its competitors on overall performance, growth in sales or services, overall reputation, ability to attract the best people, customer satisfaction, and potential for long-term success. Hypothesis 4c is also supported ($t(143) = 2.93$, $p < .01$): members of quantum organizations perceive higher levels of performance than members of bureaucratic, fearful, or courageous organizations.

Lastly, Hypothesis 5 regarding satisfaction was supported ($r = .24$, $p < .01$ and $r = -.34$, $p < .01$, for 5a and 5b, respectively). Members who observe more acts of courage and anticipate less fear of engaging in acts of courage feel more satisfied, trusted, supported, inspired—and less burned out. Hypothesis 5c is also supported ($t(78.74) = 5.77$, $p < .001$): members in quantum organizations feel more satisfied, etc.—and less burned out—than members of bureaucratic, fearful, or courageous organizations.

Discussion and Conclusions

In this last section, we (1) summarize the development and validation of our instrument for assessing organizational courage, (2) address the limitations of our sample and research methodology, (3) recommend directions for future research, and (4) highlight the practical implications of the instrument for organizational development.

In this study, we applied Loevinger's (1967) framework for exploring the validity of our instrument on organizational courage. Analysis suggests that our two-factor solution has high internal consistency (average alpha = .88 across two studies), low intercorrelation between the factors (average $r = -.03$ across two studies), and high test-retest stability (average $r = .85$). This clear, stable, orthogonal distinction between observing and fearing acts of courage enabled us to define four types of organizations: bureaucratic, fearful, courageous, and quantum (see Fig. 1).

The most encouraging result from investigating the external validity of the OCA was the strong support we achieved for our hypotheses and, thus, our theoretical model (see Fig. 2). Only one sub-hypothesis (1b) was not statistically significant; environmental turbulence and hostility do not seem to be associated with fear. Fear may be more directly affected by members contemplating specific acts of courage inside their organization (and thus anticipating immediate, harmful consequences) than by a

more detached future possibility of harm arising from outside their organization. Every other hypothesis, however, was supported, consistent with our research model, and thus supportive of the emerging theory of organizational courage. From our statistically significant and meaningful mean difference tests (average effect size of .61, which is a medium effect per Cohen 1988), it seems that members who perceive themselves to be in quantum organizations (determined by high Observe scores and low Fear scores on the OCA)—as compared to bureaucratic, fearful, or courageous organizations—perceive (1) more environmental turbulence and hostility, (2) less structural rigidity and control, (3) more cultural support and direction, (4) higher levels of perceived organizational performance, and (5) higher member satisfaction. Since we achieved these results by using 18 well-established research scales (simplified via a five-factor solution), our new instrument seems quite promising.

There are limitations in our sample and methodology that should be addressed in future research. First, sampling members from a variety of organizational settings and assessing the level of agreement in their perceptions of the same organization would be preferable to convenience sampling of working students. Now that the initial validation of the instrument seems encouraging, it should be easier to gain access to organizations.

Another limitation is that our correlational design does not allow us to test causality. Obtaining objective assessments of organizational systems and subsequent outcomes should be the next step for testing our cause-and-effect research model. Out of necessity and convenience, we relied almost exclusively on one-time, self-report data. Once again, now that we can show our instrument is measuring something meaningful and is doing so consistently, access to diverse organizations may be plausible to test cause-and-effect relationships.

Besides the need to address these methodological concerns, future research with the OCA can move in many theoretical directions. For example, research could be directed at investigating the contagious effects of courageous acts—the socially dynamic aspect of emotions arising from observing courageous acts. A related issue concerns the distinction between positive and negative experiences with courage. Based on our research results, it seems that we tapped the positive experiences that spread throughout an organization (i.e., observing acts of courage was positively related to supportive systems and desirable outcomes). It might be worthwhile, however, to determine whether negative experiences with courage have more lasting, damaging impact on an organization than positive events. Future research results might be more revealing—and discriminating—if the positive/negative contagious effects of courageous acts were investigated explicitly.

Perhaps the most profound implication of our model is that acting courageously is not necessarily the best approach for addressing organizational challenges. Acting courageously, by definition, is living with fear (courageous organizations). Although living with fear might seem to be more resourceful than being overcome by fear (fearful organizations) or surrendering to fear (bureaucratic organizations), we realized that acting without fear may be the most effective approach for organizational success (quantum organizations).

Practically, the OCA could be used as an efficient diagnostic tool for work groups, departments, and entire organizations. Their scores could be plotted on a graph (similar to Fig. 1) to capture the average scores. Two recommendations can be derived from such a diagnosis. First, an organization (or work unit) diagnosed as bureaucratic, fearful, or courageous can aim to become a quantum organization—applying the available programs and processes of organizational transformation (Gouillart and Kelly 1995; Kilmann et al. 1988; Kochan and Useem 1992). If such planned organizational change is successful, members will be able to act *without fear*, since they would have transformed their formal and informal systems in order to support their mindful actions.

Second, if a system-wide transformation is not feasible, the members in a bureaucratic or fearful organization still have the option to become a courageous organization. Training-and-development programs can be designed to expand people's awareness of courage (Klein and Napier 2003). As a result of implementing these skill-building workshops, members can learn how to address the increasingly complex challenges in which acting with courage is vital for success (Byrne 2004).

All organizations are enmeshed in an increasingly dynamic competitive environment. It is difficult if not impossible, therefore, to specify exactly what is required of every member on a daily basis. As a result, traditional practices and standard operating procedures are no longer sufficient to guide work behavior. People must internalize what behaviors are best for the short-run as well as the long-run success of their organization—and perform these acts as needed. Hopefully, the organization will support and empower its members to act mindfully and appropriately. However, in those cases when an organization remains entrenched with bureaucracy, members must act despite the possible negative consequences for taking responsibility for their organization. Either way, to succeed in the long term, an organization must become more quantum or its people must act with more courage. The other sad alternatives involve (1) members living in fear and (2) resigning their hopes for the future—either of which hurts the organization, its members, and society.

Many exciting possibilities exist for combining the practical implications of our theory with a research program designed to elaborate and test our nomological network of organizational courage. Such research could ultimately develop the wisdom for knowing when courage is still needed and celebrating when courage is no longer an issue.

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