

Exploring the relationships between organizational virtuousness and performance

By: Kim S. Cameron, David Bright, and [Arran Caza](#)

Cameron, K.S., Bright, D., & Caza, A. (2004). Exploring the relationships between organizational virtuousness and performance. *American Behavioral Scientist*, 47(6), 766-790. <https://doi.org/10.1177/0002764203260209>

*****© 2004 Sage Publications. Reprinted with permission. No further reproduction is authorized without written permission from SAGE. This version of the document is not the version of record. Reuse is restricted to non-commercial and no derivative uses. *****

Abstract:

The importance of virtuousness in organizations has recently been acknowledged in the organizational sciences, but research remains scarce. This article defines virtuousness and connects it to scholarly literature in organizational science. An empirical study is described in which the relationships between virtuousness and performance in 18 organizations are empirically examined. Significant relationships between virtuousness and both perceived and objective measures of organizational performance were found. The findings are explained in terms of the two major functions played by virtuousness in organizations: an amplifying function that creates self-reinforcing positive spirals, and a buffering function that strengthens and protects organizations from traumas such as downsizing.

Keywords: positive | organizational | scholarship | virtue

Article:

The idea that organizational performance could be related to virtuousness in organizations or to virtuousness enabled by organizations has been a foreign idea until very recently. Linking virtuous behavior with organizational behavior has traditionally been an uncomfortable idea in scholarly circles. Empiricism and virtuousness have usually not been located in the same domain. This investigation, however, aims to join these separate domains by defining and measuring the concept of organizational virtuousness and exploring its relationship to the performance of organizations.

THE CONCEPT OF VIRTUOUSNESS

Virtuousness is associated with what individuals and organizations aspire to be when they are at their very best. States of virtuousness are uniquely human, and they represent conditions of flourishing, ennoblement, and vitality (Lipman-Blumen, & Leavitt, 1999). Virtuousness has been defined in connection with meaningful life purpose (Becker, 1992; Overholser, 1999), the ennoblement of human beings (Eisenberg, 1990), personal flourishing (Nussbaum, 1994; Weiner, 1993), and that which leads to health, happiness, transcendent meaning, and resilience in suffering (Myers, 2000a, 2000b; Ryff & Singer, 1998). It produces "moral muscle," willpower,

or stamina in the face of challenges (Baumeister & Exline, 1999, 2000; Emmons, 1999; Seligman, 1999).

At the aggregate level, virtuousness has been associated with organizations, communities, and cultures. According to economist Adam Smith (1790/1976) and sociologist Georg Simmel (1950), it is the basis upon which all societies and economies flourish because virtuousness is synonymous with the internalization of moral rules that produce social harmony (Baumeister & Exline, 1999). Virtuousness in societies provides the integral elements of good citizenship (White, 1996), reciprocity (Simmel, 1950), and stability (Smith, 1790/1976) needed to ensure societal longevity.

Despite this, the concept of virtuousness has, until recently, been out of favor in the scientific community. Virtuousness has been traditionally viewed as relativistic, culture-specific, and associated with social conservatism, religious or moral dogmatism, and scientific irrelevance (Chapman & Galston, 1992; MacIntyre, 1984; Schimmel, 1997). Scholarly research has paid scant attention to virtuousness, especially in organizations. It remains rarely discussible among practicing managers who assume that little association exists between virtuousness and the economic outcomes for which they are responsible (Clifton, 2003).

Walsh (2002), as well as Baumeister, Bratslavsky, Finkenauer, and Vohs (2001), provided evidence of this inattention. Walsh (2002), for example, surveyed the appearance of terms related to virtuousness in the business press. He found that virtues are largely ignored as topics associated with business performance. In an analysis of word usage in the Wall Street Journal from 1984 through 2000, Walsh reported that the appearance of terms such as win, advantage, and beat had risen more than four-fold during that 17-year period, whereas terms such as virtue, caring, and compassion seldom appeared at all. Their use remained negligible across the 17 years. In organizational studies, concepts related to virtuousness have been replaced by more morally neutral terms such as corporate social responsibility, citizenship behavior, and employee morale (George, 1991; McNeeley & Meglino, 1994; Piliavin & Charng, 1990), resulting in little systematic investigation of virtuousness in organizations.

A second illustration from Baumeister et al.'s (2001) extensive review of the psychological literature uncovered overwhelming evidence that negative or "bad" occurrences have greater relative impact on individual emotions and behavior than positive or "good" occurrences. One bad event or one piece of negative feedback, for example, is more powerful than one good event or one compliment in affecting relationships, emotions, and impressions of people (Gottman, 1994; Yzerbyt & Leyens, 1991). Thus, because negative phenomena capture more attention and appear to account for more variance in predicting psychological outcomes than "good" phenomena, most research on human behavior has focused on negative or "bad" phenomena.

This has left organizational studies, until recently, bereft of systematic investigations of virtuousness, its expression, and its effects. (Exceptions are contained in Cameron, Dutton, & Quinn, 2003). The present study aims to take one step toward addressing this void by measuring the concept of virtuousness in organizations and examining its association with performance. As explained below, there is reason to expect that virtuousness may have a positive association with organizational performance.

VIRTUOUSNESS IN AND ENABLED BY ORGANIZATIONS

Seligman (2002) reported that more than 99% of psychological research in the past 50 years has focused on negative phenomena or the transition from negative to normal functioning. Almost no attention has been paid to exceptional or flourishing states. Similarly, a large majority of medical research has also focused on understanding and treating illness and on overcoming the effects of disease (Ryff & Singer, 1998). In the same way, more attention in organizational and management research has been paid to solving problems, surmounting obstacles, battling competitors, achieving effectiveness and efficiency, making a profit, and closing deficit gaps than identifying the flourishing and life-giving aspects of organizations. Less is known, therefore, about the virtuous aspects of organizational life than the problematic aspects.

Attributing the quality of virtuousness to an organization means that the organization enables and supports virtuous activities on the part of its members. Virtuousness in organizations, therefore, refers to transcendent, elevating behavior of the organization's members. Virtuousness enabled by organizations refers to features of the organization that engender virtuousness on the part of members. A general definition of organizational virtuousness, then, includes individuals' actions, collective activities, cultural attributes, or processes that enable dissemination and perpetuation of virtuousness in an organization.

Virtuousness does not refer to an all or nothing condition, of course, because neither individuals nor organizations are completely virtuous or nonvirtuous, nor are they virtuous all the time. Moreover, no single indicator can measure the multiple indicators of virtuousness; yet three key definitional attributes are associated with virtuousness that can help explain its relevance in organizational studies: moral goodness, human impact, and social betterment.

First, virtuousness is associated with moral goodness. It represents what is good, right, and worthy of cultivation (McCullough & Snyder, 2000; Peterson, 2003). Virtuousness is most closely associated with what Aristotle (Aristotle, *Metaphysics* XII, 7, 3-4) labeled "goods of first intent" or "that which is good in itself and is to be chosen for its own sake" (Sect. 3), such as love, wisdom, and fulfillment. Goods of second intent include "that which is good for the sake of obtaining something else" (*Metaphysics* XII: 4), such as profit, prestige, or power. People never tire of or become satiated with goods of first intent, but that is not true of goods of second intent. The moral component of virtuousness is characterized by goods of first intent and is desired for its own sake, and it is characteristic of organizations as well as individuals (Park & Peterson, 2003).

Second, virtuousness is associated with human beings' individual flourishing and moral character (Doherty, 1995; Ryff & Singer, 1998), with human strength, self-control, and resilience (Baumeister & Exline, 1999, 2000), and with meaningful purpose and transcendent principles (Dent, 1984; Emmons, 1999; Roberts, 1988). Objects or acts without human impact are not virtuous. The structure of an organization, for example, is inherently neither virtuous nor nonvirtuous because it does not necessarily have intrinsic positive or negative human impact. However, some organizations have created structures in order to perpetuate flourishing interpersonal relationships, meaningful work, enhanced learning, and personal development

among employees (Baucus & Beck-Dudley, 2002), so such structures may enable virtuousness to occur in an organization through their impact on human beings.

Third, virtuousness is characterized by social betterment that extends beyond mere self-interested benefit. Virtuousness creates social value that transcends the instrumental desires of the actor. It produces benefit to others regardless of reciprocity or reward (Aristotle, 1106a22-23). Expressing virtuousness is not oriented toward obtaining external recognition, benefit, or advantage (Cawley, Martin, & Johnson, 2000). Previous studies have investigated examples of extraordinary performance (Tichy & Sherman, 1993), how organizations get from "good to great," (Collins, 2001), and the prosocial behavior and social responsibility of organizations (Batson, 1991, 1994; Margolis & Walsh, 2003; Weiser & Zadek, 2000). The phenomena targeted by these studies, however, are usually explained in terms of exchange and justice theories. In their view, organizations behave responsibly and engage in prosocial behavior because of justice concerns, reciprocation, or exchange (Batson, Klein, Highberger, & Shaw, 1995; George, 1991; Piliavin & Charng, 1990; Sanchez, 2000; Weiser & Zadek, 2000). Such studies define "great" organizational performance in terms of wealth creation, competitive strategy, and/or leadership strength (Collins, 2001; Hamel & Prahalad, 1994). Virtuousness in organizations, on the other hand, represents more than participation in normatively prescribed volunteerism, philanthropy, environmentally friendly programs, or utilizing renewable resources (Bollier, 1996; Margolis & Walsh, 2001). Certain socially responsible and citizenship activities may represent organizational virtuousness, of course, but the focus of virtuousness is on social betterment irrespective of personal or corporate benefit.

Virtuousness does not stand in opposition to concepts such as citizenship, social responsibility, or ethics, of course, but it extends beyond them. It broadens the orientation to include fostering the moral good, not just redressing the bad, and producing human effects and social betterment, all without expectation of personal return (Batson, 1994; Peterson & Seligman, 2002; Sandage & Hill, 2001).

THE ASSOCIATION BETWEEN VIRTUOUSNESS AND PERFORMANCE

An irony associated with organizational virtuousness is that without demonstrated benefits, virtuousness is unlikely to capture much interest in organizational research. In the absence of obvious advantages or positive outcomes, research focuses on instrumental outcomes and deficits created by negative occurrences. Timberland's CEO, Jeffrey Schwartz, illustrated this issue with his comment,

If we don't make money, no amount of virtue will do our firm any good. Wall Street will ignore us, and we will soon be out of business. We must have bottom line performance for virtuousness in our firm to be taken seriously. (Schwartz, 2002)

Virtuousness in organizations, in other words, is unlikely to capture attention without pragmatic outcomes.

Fortunately, there is reason to believe that virtuousness and performance in organizations are positively related and mutually reinforcing. This association is explained by two key attributes of

virtuousness: its amplifying qualities, which can foster escalating positive consequences, and its buffering qualities, which can protect against negative encroachments. Several writers have examined these qualities (Dienstbier & Zillig, 2002; Fredrickson, 2003; Hatch, 1999; Masten & Reed, 2002; Seligman, Schulman, DeRubeis, & Hollon, 1999; Sutcliffe & Vogus, 2003), demonstrating that when virtuousness is expressed in organizations (as when leaders or exemplars manifest courageous or compassionate behaviors), or when organizations recognize and legitimize virtuous behaviors (as when courageous or compassionate acts are recognized and applauded), virtuousness becomes self-reinforcing, and it fosters resiliency against negative and challenging obstacles.

AMPLIFYING EFFECTS

Virtuousness provides an amplifying effect because of its association with three consequences: positive emotions, social capital, and prosocial behavior. First, several authors have reported that exposure to virtuous behaviors produces positive emotions in individuals, which, in turn, lead to a replication of virtuousness and, subsequently, to an elevation in organizational performance (Fineman 1999; Fredrickson, 1998; Seligman, 2002; Staw, Sutton, & Pellod, 1994). When organization members observe compassion, experience gratitude, or witness forgiveness, for example, a mutually reinforcing cycle begins. Virtuous behavior inspires positive emotions such as "love, empathy, awe, zest, and enthusiasm . . . the sine qua non of managerial success and organizational excellence" (Fineman, 1996, p. 545). Feelings of elevation, inspiration, and joy accompany demonstrations of virtuousness. These positive emotions, as demonstrated by Staw and Barsade (1993), produce improved cognitive functioning, better decision making, and more effective interpersonal relationships among organization members. Their research shows that positive affect actually increases individual performance in various ways. Employees experiencing more positive emotions are more helpful to customers, for example, more creative, and more empathetic and respectful (George, 1998).

Fredrickson (2003, p. 173) reported that this sense of affective elevation, inspired by observing virtuousness, is disseminated throughout the organization by way of a contagion effect:

elevation increases the likelihood that a witness to good deeds will soon become the doer of good deeds, then elevation sets up the possibility for some sort of upward spiral . . . and organizations are transformed into more compassionate and harmonious places.

Individual virtuousness expands to become organizational virtuousness. The entire organization is influenced positively when virtuousness is displayed, especially by individuals in leadership positions (George, 1995). Displays of virtuousness by leaders are especially likely to become characteristic of the organization as a whole (George, 2000). Elevated organizational performance, in turn, fosters pride in the organization, enjoyment in work, and more helpful and respectful behaviors in employees. This self-reinforcing spiral fosters even more of the original virtuous behaviors (Isen, 1987).

A second reason for the amplifying effects of virtuousness is its association with social capital formation (Baker, 2000; Coleman, 1988). Social capital in organizations refers to the relationships among individuals through which information, influence, and resources flow. It is

important because high levels of social capital reduce transaction costs, facilitate communication and cooperation, enhance employee commitment, foster individual learning, strengthen relationships and involvement, and ultimately, enhance organizational performance (Adler & Kwon, 2002; Leana & Van Buren, 1999; Nahapiet & Ghoshal, 1998). Organizations function better when members know, trust, and feel positively toward one another (Bolino, Turnley, & Bloodgood, 2002). Observing virtuous actions creates a sense of attachment and attraction toward the virtuous actor (Bolino, Turnley, & Bloodgood, 2002). This helps members of an organization, in turn, experience a compelling urge to join with and build upon the contributions of these others (e.g., Eisenberg, 1990; Hatch, 1999; Leavitt, 1996; Quinn & Button, 2002; Sethi & Nicholson, 2001). Haidt's (2000, p. 2) research found that exposure to unexpected acts of goodness (virtuousness) "surprised, stunned, and emotionally moved" individuals, which triggered affiliative behavior (social capital) and a tendency to repeat the good deeds.

Several researchers have reported that when employees observed displays of virtuous behaviors among fellow employees, for example, sharing, loyalty, advocacy, caring, the results were enhanced liking, commitment, participation, trust, and collaboration, all of which contribute significantly to organizational performance (Koys, 2001; Podsakoff, MacKensie, Paine, & Bachrach, 2000; Walz & Niehoff, 2000). These enhanced relationships serve as the social capital upon which organizational performance can build. They form a reserve of resources that facilitates effectiveness. Spreitzer and Sonenshein (2003) and Bateman and Porath (2003) argued that witnessing virtuousness leads to strengthened interpersonal relationships, "optimal behavioral functioning," and, in turn, organizational effectiveness. An important link between virtuousness and performance, then, is the enhanced social capital resulting from exposure to virtuousness in organizations.

Third, virtuousness fosters prosocial behavior. Prosocial behavior occurs when individuals behave in ways that benefit other people. Several authors (Batson, 1991, 1994; Berkowitz, 1972) have pointed out that individuals engage in prosocial behavior because of internal definitions of goodness and an intrinsic motivation toward helping others, among other factors. "Evidence on impulse helping suggests that . . . individuals may be genetically disposed to engage in impulsive acts of helping" (Krebs, 1987, p. 113). Behaving virtuously toward others (e.g., being generous, forgiving, benevolent, loving) regardless of personal reward and aside from establishing a condition of equitable exchange appears to be innate. "Theory and data now being advanced are more compatible with the view that . . . acting with the goal of benefiting another does exist and is a part of human nature" (Piviavin & Charng, 1990, p. 27). Observing and experiencing virtuousness helps unlock the human predisposition toward behaving in ways that benefit others. The now-classic Asch (1952) studies support the idea that when people observe exemplary moral behavior their inclination is to follow suit. Isen (1987) found that individuals were more helpful to others after being induced to feel positive emotions by, for example, being exposed to virtuous conditions. Thus, positive spirals of prosocial behavior, following from spirals of positive affect, tend to flow from virtuous behavior.

BUFFERING EFFECTS

Virtuousness also buffers the organization from the negative effects of trauma or distress by enhancing resiliency, solidarity, and a sense of efficacy (Masten et al., 1999; Weick, Sutcliffe, &

Obstfeld, 1999). Seligman and Csikszentmihalyi (2000) pointed out, for example, that the development of human virtuousness serves as a buffer against dysfunction and illness at individual and group levels. They reported that virtues such as courage, hope or optimism, faith, honesty or integrity, forgiveness, and compassion all have been found to be prevention agents against psychological distress, addiction, and dysfunctional behavior. Learned optimism, for example, prevents depression and anxiety in children and adults, roughly halving their incidence over the subsequent 2 years (Seligman, 1991).

Similarly, fostering human virtuousness helps create safeguards that buffer individuals from the negative consequences of personal trauma (Seligman et al., 1999). Fredrickson, Mancuso, Branigan, and Tugade (2000) found that the cardiovascular, emotional, and intellectual (e.g., the ability to concentrate) systems in individuals recover significantly more rapidly and completely when they experience positive affect, which may be stimulated by virtuous behaviors. At the group and organization levels, virtuousness enhances the ability to absorb threat and trauma and to bounce back from adversity (Dutton, Frost, Worline, Lilius, & Kanov, 2002; Wildavsky, 1991). Virtuousness serves as a source of resilience and "toughness" (Dienstbier & Zillig, 2002), helping to preserve social capital and collective efficacy (Sutcliffe & Vogus, 2003).

Worline et al. (2002) reported that aspects of virtuousness in a health care organization (e.g., kindness, love, compassion) helped foster "strengthening," "replenishing," and "limbering" consequences in organizations. Virtuousness strengthens organizations by providing a clear representation of what is desirable, aspirational, and honorable in the organization. Virtuousness helps replenish or renew organizations through its association with positive affect, social capital, and prosocial activity. Virtuousness helps limber the organization, or increase its capacity to respond adaptively to unanticipated and potentially damaging situations, by enhancing relational coordination (Gittell, 2000, 2001). Hence, the presence of virtuousness in organizations likely serves as a buffering agent that protects, inoculates, and creates resilience to bounce back quickly.

These buffering effects may be particularly important in conditions associated with organizational downsizing or similar traumas by helping to protect against the deterioration typically associated with such events (Turner, Barling, & Zacharatos, 2002). Previous research on the effects of organizational down-sizing (Cameron, 1998; Cascio, Young, & Morris, 1997; McKinley, Sanchez, & Schick, 1995) demonstrates that organizations experiencing downsizing (or similar traumatic events) almost always have an escalation in 12 dysfunctional attributes, labeled the dirty dozen: (a) decreasing employee morale, commitment, and loyalty; (b) loss of trust among customers and employees; (c) restricted communication flows and less information sharing; (d) loss of teamwork; (e) loss of accessible, forward-thinking, proactive aggressive leaders; (f) decreasing innovativeness; (g) adopting a short-term, crisis mentality; (h) centralizing and narrowing of decision making; (i) increasing resistance to change; (j) escalating politicized special interest groups and political infighting; (k) increasing interpersonal conflict; and (l) risk-aversion and conservatism in decision making. Under conditions represented by the dirty dozen, organizational performance deteriorates over time, and organization members develop perceptions of injustice, personal harm, and a desire for retribution (Cameron, Kim, & Whetten, 1987; Cole, 1993). As a result, the resilience associated with virtuousness, which helps absorb misfortune, recover from trauma, and maintain momentum in difficult circumstances, is likely to

be an important factor that allows organizations to overcome the dirty dozen and improve performance (Gittell & Cameron, 2002).

In light of this theoretical rationale of a positive relationship between organizational virtuousness and performance, the following two-part hypothesis is proposed:

Hypothesis 1: A positive relationship exists between perceptions of organizational virtuousness and

A: perceived organizational performance and

B: objective indicators of organizational performance.

METHOD

An instrument was developed to capture perceptions of organizational virtuousness from a sample of employees in organizations. The survey also included items assessing the effects of downsizing and certain indicators of organizational performance. A measure of objective organizational performance was obtained from organizational records, and the relationship between perceived organizational virtuousness and performance was explored statistically.

Instrument. Several instruments have been developed in the psychological literature to assess various kinds of virtues (Bardis, 1971; Berry, Parrott, O'Connor, & Wade, 2001; Emmons, 1999; Hargrave & Sells, 1997; Snyder et al., 1996). Moreover, recent work by Peterson and Seligman (2003) classifying the 24 universal human strengths and virtues suggests that clusters of virtues may share certain attributes in common. These instruments were all consulted, but because they focus on individual attributes and psyche rather than organizational attributes and behaviors, the development of a new survey instrument was required. In one section of the instrument, a series of items was constructed that asked members to characterize their organizations on the basis of a variety of virtuous concepts including forgiveness, integrity, trustworthiness, appreciation, humility, hope, caring, compassion, optimism, courage, generosity, honesty, apology, positive energy, openness, profound purpose, encouragement, trust, love, commitment, meaningfulness, a sense of calling, human strength, kindness, benevolence, courtesy, respect, honoring, and doing good. These virtues were selected from previous instruments and from reviews of the literature on universal virtues (e.g., Kidder, 1997; Peterson & Seligman, 2003; Sandage & Hill, 2001). They were not intended to be a comprehensive list of virtuous behaviors, but they are a reasonable representation of concepts that almost all people consider virtuous. The intent was to capture the extent to which virtuousness was characteristic of organizations from the perspective of their employees. Examples of items in the survey include the following: "Acts of compassion are common in this organization"; "Kindness and benevolence are expected of everyone in this organization"; and "Employees are inclined to forgive one another's mistakes." Virtuousness among organization members in the organization as well as being enabled by the organization was measured by the items. Hence, the measure of organizational virtuousness contains both aspects: virtuous behaviors in and enabled by the organization.

A second section of the survey assessed measures of organizational performance. Two kinds of performance were measured. The first included indicators of the negative effects of downsizing. A total of 12 items was drawn from Cameron, Kim, and Whetten's (1987) measures of the

common consequences of downsizing (for example, "As a result of downsizing, conflict has increased among organization members"). Respondents also were asked to rate four key performance measures used in the organizations: innovation, quality, customer retention, and employee turnover. These indicators of performance were compared to four standards: (a) the industry average, (b) the best competitor, (c) the organization's 3-year improvement trend, and (d) the stated goals; so 16 items were measured (4 Performance Measures \times 4 Standards). Providing standards against which to rate performance results in more reliable data than asking for a simple numerical rating (Cameron, 1978, 1986).

The survey items asked respondents to assess the characteristics of the organization in which they are members, and it avoided asking respondents to describe their own personal behaviors or attributes. The instrument produced perceptions and attributions of virtuousness in and by organizations, therefore, as well as organizational performance compared to specified standards.

ORGANIZATIONAL SAMPLE

A total of 52 organizations were invited to participate in the study by means of a personal contact with the CEO or company president. These firms represent a convenience sample of organizations, and most were invited because their headquarters were located in the Midwestern United States. No prior knowledge about organizational virtues guided the sample selection. Of these 52 organizations, 18 agreed to participate (a 36% response rate), representing 16 different industries. The industries included retail, general manufacturing, steel, automotive, public relations, transportation, business consulting, health care, power generation, and social services. Two thirds of the sample comprised publicly traded companies, and all but 2 of the organizations had downsized within the previous 3 years. Performance deterioration was expected in all of the recently downsized organizations.

RESPONDENT SAMPLE

In each of the 18 participating firms, a company liaison distributed surveys to a stratified random selected sample of employees representing a diagonal slice across levels and functional areas. Most surveys were completed online with an e-mail message sent to respondents containing a link to the survey Web page. Respondents entered their answers directly online and submitted them electronically. For respondents without access to the Internet, a paper-and-pencil survey was completed, and a machine-readable answer sheet was faxed back to the researchers. A total of 1,437 surveys were distributed, and 804 usable responses were received, for a response rate of 56%. All individuals and their organizations were guaranteed anonymity.

ANALYSES AND RESULTS

The first analysis investigated the understructure of the 60 survey items measuring organizational virtuousness using factor analysis. The intent was to identify a statistically viable measure of the concept of organizational virtuousness. Second, a clustered regression procedure was used to investigate the first part of the hypothesis, namely, the relationship between perceptions of virtuousness and perceived organizational performance. Finally, the relationship between perceived virtuousness and objective performance was examined using hierarchical regression.

FACTOR STRUCTURE

A principal axis factor analysis (PAF) was used to examine the items measuring perceived virtuousness. PAF, in contrast to traditional principal components extraction, incorporates a statistical model that allows for measurement error as well as the unique contributions of random effects to item variances (Rummel, 1970). Hence, PAF can accommodate a factor structure that derives from a combination of the organizational context and each respondent's idiosyncratic tendencies. The factors were Promax rotated and aggregate scores computed in order to identify any underlying dimensions associated with the overall concept of organizational virtuousness.

Based on a scree-plot analysis and a loading cut-off of 0.5, a stable five-factor structure emerged from the ratings of virtuousness items, accounting for 71.6% of the variance. The stability of this factor structure was suggested by a KMO statistic of 0.954, a highly significant Barlett test of sphericity ($p < .01$), and the replication of the five factors with randomly selected subsamples of the responses. Moreover, reliability coefficients for each factor varied from .83 to .89, supporting conclusions of convergent validity (see Table 1 for factor loadings and reliability scores).

The factors were clearly interpretable as measures of organizational forgiveness, organizational trust, organizational integrity, organizational optimism, and organizational compassion. Multivariate analysis of variance was then used to confirm the discriminant validity of each factor. The five extracted factor scores were entered as dependent variables in a MANOVA, with the respondent's firm serving as the independent variable. The omnibus test was highly significant (Wilks's lambda $F^{\text{sub } 85,3784} = 4.61$, $p < .01$). Subsequent univariate analysis further indicated that each of the individual factors showed greater variance between firms than within ($F^{\text{sub } 17,786}$ values ranged from 3.01 to 7.45, all having $p < .01$). As such, the factor structure of the data suggest that members perceive their organizations as enabling and displaying virtuousness, and that members of a particular organization have convergent perceptions of that virtuousness.

LINEAR REGRESSION

A perception bias could be present, of course, when associations are examined between perceived virtuousness and perceived outcomes, as specified in Hypothesis 1 A. To partially control for such a bias in the data, a composite measure of perceived performance (created by averaging across respondents' perceptions of the four outcomes relative to industry average, $\alpha = .685$) was correlated with an independent objective performance measure (i.e., the 6-year industry-corrected average return on equity for the organizations). The resulting correlation of $r = .793$ ($p < .01$) supports the concurrent validity of the perceived outcomes, suggesting that they are credible measures of organizational performance. Given this, the four perceived performance measures were regressed on the five extracted virtue scores.

TABLE 1: Virtuousness Subfactor Item Loadings (with reliability coefficients)

	Optimism (alpha = 0.837)	Trust (alpha = 0.830)	Compassion (alpha = 0.886)	Integrity (alpha = 0.898)	Forgiveness (alpha = 0.898)
A sense of profound purpose is associated with what we do here	.663				
In this organization we are dedicated to doing good in addition to doing well	.620				
We are optimistic that we will succeed, even when faced with major challenges	.599				
Employees trust one another in this organization		.741			
People are treated with courtesy, consideration, and respect in this organization		.675			
People trust the leadership of this organization		.600			
Acts of compassion are common here			.684		
This organization is characterized by many acts of concern and caring for other people			.631		
Many stories of compassion and concern circulate among organization members			.624		
Honesty and trustworthiness are hallmarks of this organization				.713	
This organization demonstrates the highest levels of integrity				.639	
This organization would be described as virtuous and honorable				.554	
We try to learn from our mistakes here, consequently, missteps are quickly forgiven					.724
This is a forgiving, compassionate organization in which to work					.573
We have very high standards of performance, yet we forgive mistakes when they are acknowledged and corrected					.563

To account for the lack of independence between same-firm respondents' scores, clustered regression was used in this analysis, and standard errors were calculated using the White-Huber method to correct for heteroskedasticity (Neter, Kutner, Nachtsheim, & Wasserman, 1996; White, 1980). Control variables were introduced for industry (manufacturing versus service), ownership (public versus private), and downsizing.¹

Support for Hypothesis 1A was provided by statistically significant relationships between respondents' perceptions of virtuousness and perceived organizational performance. Table 2 indicates that higher levels of perceived organizational virtuousness are positively related to higher levels of perceived organizational performance, when performance is compared to industry average, best competitor, past improvement, and stated goals. For each outcome measure (innovation, quality, customer retention, and employee turnover) virtuousness is positively associated with performance.²

TABLE 2: Relationships Between Virtuousness and Perceived Organizational Performance

Predictors	Innovation	Quality	Turnover	Customer Retention
Virtuousness model ($F_{8,17}$)	79.85***	18.79***	6.10***	11.63***
R^2	.183	.147	.073	.114
Subfactors				
Optimism	.460***	.257***	-.014	.319***
Trust	.344***	.260***	.118*	.293***
Compassion	-.002	.141***	.052	.108
Integrity	.215**	.196**	-.001	.177***
Forgiveness	.166*	.125**	-.090	.121
Control variables				
Industry	.124	.098	-.162	.045
Ownership	.079	-.092	-.166	.200
Downsizing	.057	.010	-.184***	.053
$N = 710$				
Clusters = 18				

* $p < .10$. ** $p < .05$. *** $p < .01$.

HIERARCHICAL LINEAR MODELING

The second part of the hypothesis is a more rigorous examination of the extent to which the statistically significant relationship between perceived virtuousness and perceived performance

¹ The 12 items from Cameron, Kim, and Whetten (1987) showed good psychometric properties. The "dirty dozen" scale had high reliability ($\alpha = .97$), and ANOVA using respondent as the independent factor showed significant differences in the presence of dysfunctional downsizing behaviors ($F_{17,700} = 9.89$, $p < .01$). A composite score was calculated for each respondent by averaging across the 12 items and used as a control for the effects of downsizing. However, approximately, 100 of the respondents failed to correctly complete the performance information section of the survey. Although the analyses reported here use a smaller sample, the results are identical when using the full response set with a dummy control variable (yes/no) for downsizing.

² Secondary analyses were also conducted in which individual regressions were computed for each subfactor within the virtuousness factor in order to identify which ones have the strongest relationships with the perceived outcomes. Those results are not discussed due to space constraints and because they are not the primary focus of the analyses. An oversimplification, however, shows that organizational trust has a slightly stronger relationship with the perceived outcomes than the other subfactors.

is a product of common method bias. It relies on an objectively determined financial performance measure rather than member perceptions. To allow for comparability among firms, companies' financial measures were standardized against their primary standard industrial classification (SIC) average value. Profitability was regressed on the virtuousness measure, and dummy variables were included to control for industry and downsizing. Because the criterion variable was drawn from Securities and Exchange Commission (SEC) records, only the 12 publicly traded firms were included in this analysis. A random effects hierarchical latent factor regression model was used, treating individual respondents' ratings of virtuousness as repeated measures of a firm's virtuousness.

The results in Table 3 show a statistically significant relationship between perceived virtuousness and organizational profitability ($p < .01$). Organizations in which employees perceive higher levels of virtuousness have a significantly higher profit margin. The significance of the control variable indicates that manufacturing organizations had significantly higher profitability than service sector organizations.³

TABLE 3: Relationships Between Virtues and Objective Financial Outcomes

Predictor Variables	Profit Margin
Virtuousness Model (χ^2)	14.25***
R^2 (between)	.152
Subfactors	
Optimism	-.001
Trust	-.001
Compassion	-.000
Integrity	.001**
Forgiveness	
Control variable	
Industry	-.159***

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

DISCUSSION

These findings are supportive of the hypothesis that organizational virtuousness is positively and significantly related to organizational performance. Especially notable is the fact that this positive relationship emerges in organizations that have recently experienced downsizing. In such organizations, it is common that employees hold negative perceptions of their organizations. Grudge holding, hostility, self-centeredness, blaming, and retribution seeking are common reactions among downsizing survivors (Brockner, 1988; Kozlowski, Chao, Smith, & Hedlund, 1993). These negative attributions lead, in turn, to deteriorating organizational performance over time (Cameron, Freeman, & Mishra, 1993; Cole, 1993).

One explanation for this result is that downsizing destroys social capital and interpersonal connections. By breaking the psychological contract between employees and the firm (Rousseau, 1995), downsizing weakens the glue that binds individuals to one another and to the organization. Customer service and quality deteriorate (Baker, 2000; Putnam, 2000), voluntary

³ Secondary analyses conducted with individual subfactors also examined their relationships with objective profitability. Again, to oversimplify, integrity appears to be the strongest subfactor relating to firm profitability.

turnover increases, and innovation shuts down. Commitment, loyalty, and trust are severely damaged, and employees develop negative (nonvirtuous) attributions about the organization. In this sample, 16 of 18 organizations had recently downsized, so nonvirtuous perceptions and poor organizational performance should have been the norm.

However, these results suggest that when virtuousness exists in organizations, performance does not deteriorate; rather virtuousness and organizational performance are positively related. Innovation, customer retention, employee turnover, quality, and profitability all are positively associated with virtuousness. These findings can be explained by the amplifying and buffering functions of organizational virtuousness. Briefly examining each outcome variable shows why.

INNOVATION

Because exposure to virtuous behavior produces feelings of inspiration, awe, gratitude, and other positive emotions, people broaden their interest in and accessibility to new ideas and information. They become more creative in their thinking (Isen, Daubman, & Nowicki, 1987). Fredrickson's (1998) broaden-and-build theory explains how individuals become more innovative under such circumstances by experiencing the tendency to explore, experiment, and envision new possibilities. Information processing improves, and individuals become more flexible (George, 1991). Innovation in organizations is explained, then, by one of the amplifying functions of virtuousness—positive emotions. Experiencing virtuous behavior in organizations produces positive emotions which, in turn, enhance innovativeness. These empirical results are consistent with this explanation.

CUSTOMER RETENTION

Customer retention is a product of customer satisfaction and loyalty, and a strong relationship exists between these factors and the subjective well-being of employees (Buckingham & Clifton, 2001; Johnson & Gustafsson, 2000). Customers are more effectively served and are more loyal to the organization when employees encounter positive experiences at work, such as caring, empowerment, and various forms of virtuousness. This is because employees' experiences translate directly into their relationships with those they serve. Salespeople who experienced more positive emotional experiences at work, for example, were found to be more helpful to their customers (George, 1991). Customers visited retail stores more often and spent more money per visit when they had developed a positive emotional relationship with an employee (McEwen & Fleming, 2003). Experiencing virtuousness in an organization tends to foster customer retention through two amplifying functions of virtuousness, the formation of positive emotional experiences, which results in positive service to and relationships with customers, and the tendency to be helpful to others (prosocial behavior) when employees have experienced virtuousness in their own organization. Again, the empirical results of this study are consistent with this relationship.

TURNOVER

Under conditions of downsizing, employee turnover tends to escalate (Cameron, 1986). Virtuousness in organizations, however, reduces turnover and fosters employee longevity. This is

because of the amplifying and buffering functions of virtuousness. Staw and colleagues (1994) noted that when employees experienced positive emotions at work, and when they observed helpful and caring behavior (virtuousness) among colleagues, social integration and affiliative behavior increased over time (Staw, Sutton, & Pellod, 1994; Wright & Staw, 1999). People interacted more and developed complementary bonds with others. Because people are attracted to virtuousness and have positive emotional reactions to it (Haidt, 2000), social capital increases through affiliative behavior, increased mutual support, and enhanced emotional attachment to the organization (Staw & Barsade, 1993). Moreover, experiencing virtuousness, such as forgiveness, compassion, integrity, optimism, and trust, helps buffer employees from the negative affects associated with downsizing. Violations of expectations and personal harm are mitigated, and prosocial behavior helps moderate the violation of psychological contracts and the destruction of interpersonal relationships normally associated with downsizing. Hence, consistent with this study's findings, the amplifying functions of virtuousness, positive emotions, social capital, and prosocial behavior, along with the buffering of employees from the personal harm of downsizing, tend to reduce voluntary employee turnover.

QUALITY

The positive relationships between quality and virtuousness can also be explained by the two functions of virtuousness. Quality problems in organizations are usually a product of two factors: the design of the production and service delivery system, or human error (Cameron, 1995). Organizational virtuousness may not have much to do with the architecture of quality systems, but it does positively influence the probability that human error will be reduced and quality performance will improve. This occurs in two ways. First, deterioration in quality resulting from downsizing has been documented widely. This occurs because of the emergence of "the dirty dozen" (e.g., loss of teamwork, empowerment, customer focus, innovation, interpersonal communication, and decision support) (Cameron, 1995; Cole, 1993; McKinley, Sanchez, & Schick, 1995). Virtuousness buffers organizations from these negative outcomes by enabling resiliency and toughness in the organization and the ability to withstand negative encroachments (Dienstbier & Zillig, 2002; Sutcliffe & Vogus, 2003). Virtuousness fosters willpower, stamina, and "moral muscle" among organization members (Emmons, 1999). More specifically, virtuousness engenders positive emotions, social capital, and prosocial behavior. For example, the effectiveness of information processing and of decision making have been found to improve when employees were exposed to elevating, positive experiences at work (Wright & Staw, 1999; Staw & Barsade, 1993). Collaborative activity and social support also increase. Exposure to virtuousness in organizations, in other words, helps employees make better decisions, more effectively process information, support one another, and, hence, make fewer quality errors.

PROFITABILITY

Explaining the virtuousness-profitability connection follows from the discussions of the other outcome variables above. Simply stated, the amplifying and buffering functions of virtuousness engender resources on which the organization can call to achieve its financial objectives. Work by Bolino, Turnley, and Blodgood (2002) and by Nahapiet and Ghosgal (1988), for example, found that organizations with high social capital and high levels of employee engagement also produced higher levels of profitability and quality as a result of more effective and efficient

coordination, trust, and identity with the organization. Enhanced employee innovation, expanded social capital development, increases in prosocial behavior, and the development of resiliency all serve as mechanisms by which organizations achieve profitability, even in the face of a downsizing environment. These factors are each enhanced by organizational virtuousness.

CONCLUSION

A primary objective of this study was to introduce the concept of organizational virtuousness and to begin to uncover its importance in relation to performance. Thus far, particularly in the organizational sciences, empirical researchers have seldom examined the idea of virtuousness, although it is now beginning to merit some consideration. The findings of this study suggest that even in organizations expected to suffer from the deleterious effects of downsizing (e.g., nonvirtuous attributes) a positive relationship exists between virtuousness and organizational performance. When virtuous behavior is displayed by organization members and enabled by organizational systems and processes, the organization achieves higher levels of desired outcomes. Explanations for why these relationships exist have been offered, centering on the amplifying and buffering functions of organizational virtuousness.

CAVEATS

The empirical relationships found in this study are limited in a number of ways, of course, most notably by the small sample sizes and the exploratory nature of the assessment instrument. Conclusions drawn from the results are tenuous and should be interpreted as suggestive rather than decisive. Moreover, suggestions of mutual causality are impossible to substantiate with these data, although theoretically the amplifying and the buffering qualities of virtuousness do suggest that organizations expressing and fostering virtuous attributes have higher performance levels.

FUTURE RESEARCH DIRECTIONS

Of course, much additional research is needed to draw more certain conclusions. For example, the strength and directionality of the relationships between virtuousness and performance is in need of investigation. Specifically, does virtuousness lead to effective performance, high performance to enhanced virtuousness, or does a mutually reinforcing spiral occur? Mediated relationships should also be investigated with longitudinal analyses and in-depth qualitative investigations. It is important to understand more clearly the extent to which the amplifying and buffering dynamics of virtues operate in the way described here. The measurement of virtues is also in need of attention, and a robust set of indicators of virtuousness in organizations will be an important prerequisite for extended work. In addition, differences between individual and organizational virtues need to be clarified, as do the ways in which virtues are fostered and inhibited in organizations. Most previous work has examined virtuousness in individuals but not in organizations.

In light of the current environment in which deteriorating confidence in business and attributions of corruption and negative deviance are widespread, it behooves scholars in organizational studies to extend their reach into arenas that represent the highest human potential, ennobling

qualities, and transcendent purposes. The rigorous investigation of virtuousness in organizations represents an important opportunity in that arena.

Authors' Note: The support of the John Templeton Foundation (Grant #5110) is gratefully acknowledged. We also express appreciation to Loren Dyck, Ryan Falcone, Richard Tea, and Erica Friedman for assistance in data collection.

REFERENCES

- Adler, P. S., & Kwon, S. (2002). Social capital: Prospects for a new concept. *Academy of Management Review*, 27, 17-40.
- Aristotle. (1995). *Nicomachean Ethics*. In J. Barnes (Ed.), *The complete works of Aristotle*. Princeton, NJ: Princeton University Press.
- Asch, S. E. (1952). *Social psychology*. Englewood Cliffs, NJ: Prentice Hall.
- Baker, W. (2000). *Achieving success through social capital*. San Francisco: Jossey-Bass.
- Bateman, T., & Porath, C. (2003). Transcendent motivation. In K. S. Cameron, J. E. Dutton, & R. E. Quinn (Eds.), *Positive organizational scholarship* (pp. 122-137). San Francisco: Berrett Koehler.
- Batson, C. D. (1991). *The altruism question: Toward a social-psychological answer*. Hillsdale, NJ: Lawrence Erlbaum.
- Batson, C. D. (1994). Why act for the public good? Four answers. *Personality and Social Psychology Bulletin*, 20, 603-610.
- Batson, C. D., Klein, T. R., Highberger, L., & Shaw, L. L. (1995). Immorality from empathy-induced altruism: When compassion and justice conflict. *Journal of Personality and Social Psychology*, 68: 1042-1054.
- Baucus, M. S., & Beck-Dudley, C. L. (2000, August). Designing ethical organizations: Avoiding the long-term negative effects of rewards and punishments. Paper presented at the International Association for Business and Society Conference, Essex, VT.
- Baumeister, R. F., & Exline, J. J. (1999). Virtue, personality, and social relations: Self-control as the moral muscle. *Journal of Personality*, 67, 1165-1194.
- Baumeister, R. F., Bratslavsky, E., Finkenauer, C., & Vohs, K. D. (2001). Bad is stronger than good. *Review of General Psychology*, 5, 323-370.
- Baumeister, R. F., & Exline, J. J. (2000). Self-control, morality, and human strength. *Journal of Social and Clinical Psychology*, 19, 29-42.
- Becker, L. C. (1992). Good lives: Prolegomena. *Social Philosophy and Policy*, 9, 15-37.
- Berkowitz, L. (1972). Social norms, feelings, and other factors affecting helping and altruism. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (vol. 6, pp. 63-108). New York: Academic Press.

- Berry, J. W., Worthington, E. L., Parrott, L., O'Connor, L. E., & Wade, N. G. (2001). Dispositional forgiveness: Development and construct validity of the Transgression Narrative Test of Forgiveness (TNTF). *Personality and Social Psychology Bulletin*, 27, 1277-1290.
- Bolino, M. C., Turnley, W. H., & Bloodgood, J. M. (2002). Citizenship behavior and the creation of social capital in organizations. *Academy of Management Review*, 27, 505-522.
- Bollier, D. (1996). *Aiming higher: 25 stories of how companies prosper by combining sound management and social vision*. New York: Amacom.
- Brockner, J. (1988). The effects of work lay offs on survivors: Research, theory, and practice. In B. M. Staw & L. L. Cummings (Eds.), *Research in organizational behavior* (vol. 10, pp. 215-155). Greenwich, CT: JAI Press.
- Brockner, J., Grover, S., Reed, T., DeWitt, R., & O'Malley, M. (1987). Survivors' reactions to lay-offs: We get by with a little help from our friends. *Administrative Science Quarterly*, 32, 526-541.
- Buckingham, M., & Clifton, D. O. (2001). *Now, discover your strengths*. New York: Free Press.
- Cameron, K. S. (1978). Measuring organizational effectiveness in institutions of higher education. *Administrative Science Quarterly*, 23, 604-632.
- Cameron, K. S. (1986). A study of organizational effectiveness and its predictors. *Management Science*, 32, 87-112.
- Cameron, K. S. (1994). Strategies for successful organizational downsizing. *Human Resource Management Journal*, 33, 189-211.
- Cameron, K. S. (1995). Downsizing, quality, and performance. In R. E. Cole (Ed.), *The fall and rise of total quality management* (pp. 93-114). New York: Oxford University Press.
- Cameron, K. S. (1998). Strategic organizational downsizing: An extreme case. *Research in Organizational Behavior*, 20, 185-229.
- Cameron, K. S., Dutton, J. E., & Quinn, R. E. (2003). *Positive organizational scholarship*. San Francisco: Barrett-Koehler.
- Cameron, K. S., Freeman, S. J., & Mishra, A. K. (1991). Best practices in white-collar downsizing: Managing contradictions. *Academy of Management Executive*, 5, 57-73.
- Cameron, K. S., Freeman, S. J., & Mishra, A. K. (1993). Downsizing and redesigning organizations. In G. P. Huber & W. H. Glick (Eds.), *Organizational change and redesign*. New York: Oxford University Press.
- Cameron, K. S., Kim, M. U., & Whetten, D. A. (1987). Organizational effects of decline and turbulence. *Administrative Science Quarterly*, 32, 222-240.
- Cascio, W. F., Young, C. E., & Morris, J. R. (1997). Financial consequences of employment change decisions in major U.S. corporations. *Academy of Management Journal*, 40, 1175-1189.

- Cawley, M. J., Martin, J. E., & Johnson, J. A. (2000). A virtues approach to personality. *Personality and Individual Differences*, 28, 997-1013.
- Chapman, J. W., & Galston, W. A. (1992). *Virtue*. New York: New York University Press.
- Cialdini, R. B. (2000). *Influence: The science of persuasion*. New York: Allyn Bacon.
- Cialdini, R. B., Schaller, M., Houlihan, D., Arps, K., Fultz, J., & Beaman, A. L. (1987). Empathy-based helping: Is it selflessly or selfishly motivated? *Journal of Personality and Social Psychology*, 52, 749-758.
- Clifton, J. K. (2003, January 31). The Gallup path. Presentation at the University of Michigan School of Business.
- Cole, R. E. (1993). Learning from learning theory: Implications for quality improvements of turn-over, use of contingent workers, and job rotation policies. *Quality Management Journal*, 1, 9-25.
- Coleman, J. S. (1998). Social capital in the creation of human capital. *American Journal of Sociology*, 94(Supplement), S95-S120.
- Collins, J. (2001). *Good to great: Why some companies make the leap and others don't*. New York: Harper Business.
- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. New York: Harper Perennial.
- Dent, N. (1984). *The moral psychology of the virtues*. New York: Cambridge University Press.
- Dienstbier, R. A., & Zillig, L.M.P. (2002). Toughness. In C. R. Snyder & S. J. Lopez (Eds.), *Hand-book of positive psychology* (pp. 515-527). New York: Oxford University Press.
- Doherty, W. J. (1995). *Soul searching: Why psychotherapy must promote moral responsibility*. New York: Basic Books.
- Dutton, J. E., Frost, P. J., Worline, M. C., Lilius, J. M., & Kanov, J. M. (2002, January). Leading in times of trauma. *Harvard Business Review*, 54-61.
- Eisenberg, E. M. (1990). Jamming: Transcendence through organizing. *Communication Research*, 17, 139-164.
- Emmons, R. A. (1999). *The psychology of ultimate concerns: Motivation and spirituality in personality*. New York: Guilford Press.
- Fineman, S. (1996). Emotion and organizing. In S. R. Clegg, C. Hardy, & W. R. Nord (Eds.), *The handbook of organizational studies* (pp. 543-564). London: Sage.
- Fredrickson, B. L. (1998). What good are positive emotions? *Review of General Psychology*, 2, 300-319.
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56, 218-226.

- Fredrickson, B. L. (2003). Positive emotions and upward spirals in organizations. In K. S. Cameron, J. E. Dutton, & R. E. Quinn (Eds.), *Positive organizational scholarship*. San Francisco: Berrett-Koehler.
- Fredrickson, B. L., Mancuso, R. A., Branigan, C., & Tugade, M. M. (2000). The undoing effect of positive emotions. *Motivation and Emotion*, 24, 237-258.
- George, J. M. (1991). State or trait: Effects of positive mood on prosocial behaviors at work. *Journal of Applied Psychology*, 76, 229-307.
- George, J. M. (1995). Leader positive mood and group performance: The case of customer service. *Journal of Applied Social Psychology*, 25, 778-794.
- George, J. M. (1998). Sales person mood at work: Implications for helping customers. *Journal of Personal Selling and Sales Management*, 18, 23-30.
- George, J. M. (2000). Emotions and leadership: The role of emotional intelligencer. *Human Relations*, 53, 1027-1055.
- Gittell, J. H. (2000). Organizing work to support relational coordination. *International Journal of Human Resource Management*, 11, 517-539.
- Gittell, J. H. (2001). Supervisory span, relational coordination, and flight departure performance: A reassessment of post-bureaucracy theory. *Organization Science*, 12, 467-482.
- Gittell, J. H., & Cameron, K. S. (2002, August). Compassionate leadership, relationships, and resilience: Airline responses to the crisis of 2001. Paper presented at the Academy of Management Meetings, Denver, Colorado.
- Gottman, J. (1994). *Why marriages succeed and fail*. New York: Simon & Schuster.
- Haidt, J. (2000). The positive emotion of elevation. *Prevention and Treatment*, 3, 2.
- Hamel, G., & Prahalad, C. K. (1994). *Competing for the future*. Cambridge, MA: Harvard Business School Press.
- Hatch, M. J. (1999). Exploring the empty spaces of organizing: How improvisational jazz helps redescribe organizational structure. *Organizational Studies*, 20, 75-100.
- Isen, A. M. (1987). Positive affect, cognitive processes, and social behavior. *Advances in Experimental Social Psychology*, 20, 203-253.
- Isen, A. M., Daubman, K. A., & Nowicki, G. P. (1987). Positive affect facilitates creative problem solving. *Journal of Personality and Social Psychology*, 52, 1122-1131.
- Johnson, M. D., & Gustaffson, A. (2000). *Improving customer satisfaction, loyalty, and profit: An integrated measurement and management system*. San Francisco: Jossey-Bass.
- Koys, D. J. (2001). The effects of employee satisfaction, organizational citizenship behavior, and turnover on organizational effectiveness. *Personnel Psychology*, 54, 101-114.
- Kozlowski, S. W. J., Chao, G. T., Smith, E. M., & Hedlund, J. (1993). *Organizational downsizing: Strategies, interventions, and research implications*. International Review of Industrial and Organizational Psychology. New York: Wiley.

- Krebs, D. (1987). The challenge of altruism in biology and psychology. In C. Crawford, M. Smith, & D. Krebs (Eds.), *Socio biology and psychology* (pp.81-118). Hillsdale, NJ: Lawrence-Erlbaum.
- Leana, C. R., & Van Buren, H. J. (1999). Organizational social capital and employment practices. *Academy of Management Review*, 24, 538-555.
- Leavitt, H. J. (1996). The old days, hot groups, and managers' lib. *Administrative Science Quarterly*, 41, 288-300.
- Lipman-Blumen, J., & Leavitt, H. J. (1999). *Hot groups: Seeking them, feeding them, and using them to ignite your organization*. New York: Oxford University Press.
- MacIntyre, A. (1984). *After virtue: A study in moral theory* (2nd ed.). Notre Dame, IN: University of Notre Dame Press.
- Margolis, J. D., & Walsh, J. P. (2001). *People and profits? The search for the link between a company's social and financial performance*. Mahwah, NJ: Lawrence Erlbaum.
- Margolis, J. D., & Walsh, J. (2003). *Misery loves companies: Whither social initiatives by business?* Unpublished manuscript, University of Michigan School of Business.
- Masten, A. S., Hubbard, J. J., Gest, S. D., Tellegen, A., Garmezy, N., & Ramirez, M. (1999). Competence in the context of adversity: Pathways to reliance and maladaptation from childhood to late adolescence. *Development and Psychopathology*, 11, 143-169.
- Masten, A. S., & Reed, M. G. J. (2002). Resilience in development. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive psychology* (pp. 74-88). New York: Oxford University Press.
- McEwen, W. J., & Fleming, J. H. (2003). Customer satisfaction doesn't count. *Gallup Management Journal*. Retrieved March 13, 2003, from <http://gmj.gallup.com>
- McKinley, W., Sanchez, C. M., & Schick, A. G. (1995). Organizational downsizing: Constraining, cloning, and learning. *Academy of Management Executive*, 9, 32-44.
- McNeely, B. L., & Meglino, B. M. (1994). The role of dispositional and situational antecedents in prosocial organizational behavior: An examination of the intended beneficiaries of prosocial behavior. *Journal of Applied Psychology*, 79, 836-844.
- Myers, D. G. (2000a). The funds, friends, and faith of happy people. *American Psychologist*, 55, 56-67.
- Myers, D. G. (2000b). *An American paradox: Spiritual hunger in an age of plenty*. New Haven, CT: Yale University Press.
- Nahapiet, J., & Ghoshal, S. (1988). Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review*, 23, 242-266.
- Nussbaum, M. C. (1994). *The therapy of desire: Theory and practice in Hellenistic ethics*. Princeton, NJ: Princeton University Press.

- Nussbaum, M. C. (1996). Compassion: The basic social emotion. *Social Philosophy and Policy*, 13, 27-58.
- Overholster, J. C. (1999). Elements of the Socratic method: VI. Promoting virtue in everyday life. *Psychotherapy*, 36, 137-145.
- Peterson, C. (2003). Classification of positive traits in youth. In R. M. Lerner, F. Jacobs, & D. Wertlieb (Eds.), *Promoting positive child, adolescent, and family development* (vol. 4, 227-255). Thousand Oaks, CA: Sage.
- Peterson, C. M., & Seligman, M. E. P. (2000). The classification of strengths and virtues: The VIA manual. Unpublished manuscript, University of Pennsylvania.
- Peterson, C. M., & Seligman, M. E. P. (2003). Positive organizational studies: Lessons from positive psychology. In K. S. Cameron, J. E. Dutton, & R. E. Quinn (Eds.), *Positive organizational scholarship* (pp. 14-28). San Francisco: Berrett-Koehler.
- Piliavin, J. A., & Charng, H. (1990). Altruism: A review of recent theory and research. *Annual Review of Sociology*, 16, 27-65.
- Podsakoff, P. M., MacKensie, S. B., Paine, J. B., & Bachrach, D. G. (2000). Organizational citizenship behaviors: A critical review of the theoretical and empirical literature and suggestions for future research. *Journal of Management*, 26, 513-563.
- Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. New York: Simon & Schuster.
- Quinn, R. W., & Dutton, J. E. (2002). Coordination as energy-in-conversation: A process theory of organizing. Unpublished manuscript, University of Michigan Business School.
- Roberts, R. C. (1988). Therapies and the grammar of virtue. In R. H. Bell, (Ed.), *The grammar of the heart: New essays in moral philosophy and theology* (pp. 149-170). San Francisco: Harper & Row.
- Rousseau, D. M. (1995). *Psychological contracts in organizations: Understanding written and unwritten agreement*. Beverly Hills, CA: Sage.
- Rummel, R. (1970). *Applied factor analysis*. Evanston, IL: Northwestern University Press.
- Ryff, C. D., & Singer, B. (1998). The contours of positive human health. *Psychological Inquiry*, 9, 1-28.
- Sandage, S. J., & Hill, P. C. (2001). The virtues of positive psychology: The rapprochement and challenges of the affirmative postmodern perspective. *Journal for the Theory of Social Behavior*, 31, 241-260.
- Schimmel, S. (1997). *The seven deadly sins: Jewish, Christian, and classical reflections on human nature*. New York: Free Press.
- Schwartz, J. (2002, January 30). Dean's lecture series. Presented at the University of Michigan Business School.
- Seligman, M. (1991). *Learned optimism*. New York: Knopf.

- Seligman, M. E. P. (1999). The president's address. *American Psychologist*, 54, 559-562.
- Seligman, M. E. P. (2002). Positive psychology, positive prevention, and positive therapy. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive psychology* (pp. 3-9). New York: Oxford University Press.
- Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 55, 5-14.
- Seligman, M. E. P., Schulman, P., DeRubeis, R. J., & Hollon, S. D. (1999). The prevention of depression and anxiety. *Prevention and Treatment*, 2. Retrieved September 2003 from <http://journals.apa.org/prevention/>
- Sethi, R., & Nicholson, C. Y. (2001). Structural and contextual correlates of charged behavior in product development teams. *Journal of Product Innovation Management*, 18, 154-168.
- Simmel, G. (1950). *The sociology of George Simmel*. Glencoe, IL: Free Press.
- Smith, A. (1976). *The theory of moral sentiments* (6th ed.). Oxford, UK: Clarendon Press. (Original work published 1790)
- Snyder, C. R., & Lopez, S. J. (2002). *Handbook of positive psychology*. New York: Oxford University Press.
- Snyder, C. R., Rand, K. L., & Sigmon, D. R. (2002). Hope theory: A member of the positive psychology family. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive psychology* (pp.257-276). New York: Oxford University Press.
- Spreitzer, G. M., & Sonenshein, S. (2003). Positive deviance and extraordinary organizing. In K. S. Cameron, J. E. Dutton, & R. E. Quinn (Eds.), *Positive organizational scholarship* (pp. 207-224). San Francisco: Berrett Koehler.
- Staw, B. M., & Barsade, S. G. (1993). Affect and managerial performance: A test of the sadder-but-wiser versus happier-and-smarter hypotheses. *Administrative Science Quarterly*, 38, 304-331.
- Staw, B. M., Sutton, R. I., & Pellod, L. H. (1994). Employee positive emotion and favorable outcomes at the workplace. *Organizational Science*, 5, 51-71.
- Sutcliffe, K. M., & Vogus, T. J. (2003). Organizing for resilience. In K. S. Cameron, J. E. Dutton, & R. E. Quinn (Eds.), *Positive organizational scholarship* (pp. 94-110). San Francisco: Berrett-Koehler.
- Tichy, N., & Sherman, S. (1993). *Control your destiny or someone else will*. New York: Wiley.
- Turner, N., Barling, J., & Zacharatos, A. (2002). Positive psychology at work. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive psychology* (pp. 715-730). New York: Oxford University Press.
- Walsh, J. P. (1999). Business must talk about its social role. In T. Dickson (Ed.), *Mastering strategy* (pp. 289-294). London: Financial Times/Prentice Hall.

- Walz, S. M., & Niehoff, B. P. (2000). Organizational citizenship behaviors: Their relationship to organizational effectiveness. *Journal of Hospitality and Tourism Research*, 24, 301-319.
- Weick, K. E., Sutcliffe, K. M., & Obstfeld, D. (1999). Organizing for high reliability: Processes of collective mindfulness. *Research in Organizational Behavior*, 21, 81-123.
- Weiner, N. O. (1993). *The harmony of the soul: Mental health and moral virtue reconsidered*. Albany: State University of New York Press.
- Weiser, J., & Zadek, S. (2000). *Conversations with disbelievers: Persuading companies to address social challenges*. Washington, DC: The Ford Foundation.
- White, H. (1980). A heteroskedasticity-consistent covariance matrix estimator and a direct test for heteroskedasticity. *Econometrica*, 48, 817-838.
- Wildavsky, A. (1991). *Searching for safety*. New Brunswick, NJ: Transaction Books.
- Worline, M. C., Dutton, J. E., Frost, P. J., Kanov, J., Lilius, J., & Maitlis, S. (2003). *Creating fertile soil: The organizing dynamics of resilience*. Unpublished manuscript, University of Michigan School of Business.
- Wright, T. A., & Staw, B. M. (1999). Affect and favorable work outcomes: Two longitudinal tests of the happy-productive work thesis. *Journal of Organizational Behavior*, 20, 1-23.