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The Significance of Task Significance: Job Performance Effects, Relational Mechanisms, and Boundary Conditions

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Does task significance increase job performance? Correlational designs and confounded manipulations have prevented researchers from assessing the causal impact of task significance on job performance. To address this gap, 3 field experiments examined the performance effects, relational mechanisms, and boundary conditions of task significance. In Experiment 1, fundraising callers who received a task significance intervention increased their levels of job performance relative to callers in 2 other conditions and to their own prior performance. In Experiment 2, task significance increased the job dedication and helping behavior of lifeguards, and these effects were mediated by increases in perceptions of social impact and social worth. In Experiment 3, conscientiousness and prosocial values moderated the effects of task significance on the performance of new fundraising callers. The results provide fresh insights into the effects, relational mechanisms, and boundary conditions of task significance, offering noteworthy implications for theory, research, and practice on job design, social information processing, and work motivation and performance.

Keywords: task significance, job design, work motivation, prosocial impact, job performance

Increasing job performance is among the most theoretically and practically important problems in organizational research (Staw, 1984). Scholars have long recognized that job performance depends heavily on how employees perceive their jobs (e.g., Herzberg, Mausner, & Snyderman, 1959; Turner & Lawrence, 1965). Building on this core insight, extensive theory and research has focused on increasing job performance by changing employees' job perceptions. Scholars have often argued that job performance can be enhanced through the cultivation of perceptions of task significance—judgments that one's job has a positive impact on other people (Hackman & Oldham, 1976; Morgeson & Humphrey, 2006). Task significance is thought to be particularly critical in today's economy, as employees are increasingly concerned with doing work that benefits other people and contributes to society (e.g., Colby, Sippola, & Phelps, 2001; Turban & Greening, 1997) and as organizations are increasingly concerned with providing employees with these opportunities (e.g., Brickson, 2005; Thompson & Bunderson, 2003).

Although task significance is assumed to increase job performance by enabling employees to experience their work as more meaningful, scholars have not yet established a clear causal link between task significance and job performance. As Dodd and Ganster (1996) summarized, task significance is one of two job characteristics that "have seldom emerged as strong predictors of outcomes" (p. 331). The two major meta-analyses of the job design literature show weak relationships between task significance and objective and subjective measures of job performance (Fried & Ferris, 1987; Humphrey, Nahrgang, & Morgeson, 2007). Studies that have observed a relationship between task significance and job performance suffer from at least two major limitations. First, the majority of studies have relied on cross-sectional designs, failing to rule out the possibility that task significance is a consequence, not a cause, of job performance (e.g., Mathieu, Hofmann, & Farr, 1993). Second, the comparatively few experimental studies conducted have manipulated task significance simultaneously with other job characteristics and social cues (e.g., Griffin, Bateman, Wayne, & Head, 1987; Morgeson & Campion, 2002; White & Mitchell, 1979), failing to isolate task significance as an active ingredient responsible for increases in job performance (Dodd & Ganster, 1996; Parker & Wall, 1998).

The purpose of this article is to address this unanswered question about the causal effects of task significance on job performance and elaborate existing knowledge about how and when these effects are likely to occur. I report three field experiments that examine the effects, mechanisms, and boundary conditions of task significance. The results show convergent support for the causal effects of task significance on job performance and provide novel insights into the relational mechanisms and boundary conditions for these effects. I discuss the implications of these results

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for theory, research, and practice related to job design, social information processing, and work motivation and performance.

The Role of Task Significance in Job Performance

Job performance refers to the effectiveness of individual behaviors that contribute to organizational objectives (e.g., McCloy, Campbell, & Cudeck, 1994; cf. Motowidlo, 2003). Researchers studying both job design (Hackman & Oldham, 1976) and social information processing (Salancik & Pfeffer, 1978) have proposed that when employees perceive their jobs as high in task significance, they display higher job performance. Job design researchers conceptualize task significance as an objective characteristic of the work itself, seeking to increase job performance by structurally redesigning tasks to enrich employees' perceptions of task significance (Steers & Mowday, 1977). Social information processing researchers conceptualize task significance as a subjective judgment that is socially constructed in interpersonal interactions, seeking to increase job performance by providing social cues to reframe employees' perceptions of task significance (Griffin, 1983). Although these two theoretical perspectives emphasize different antecedents of task significance, they share the premise that once perceptions of task significance are cultivated, employees are more likely to perform effectively.

As discussed previously, little research has attempted to establish a causal relationship between task significance and job performance (Dodd & Ganster, 1996). However, scholars have recently begun to conduct experimental research to redress this gap. Grant et al. (2007) conducted a field experiment with fundraising callers soliciting alumni donations to a university. Although the callers were responsible for soliciting university alumni donations that provided student scholarships, they had no contact with any of the scholarship students who benefited from their work. The experiment allowed a group of callers to interact for 10 min with a student scholarship recipient and learn about how their efforts had made a difference in his life. One month after the intervention, callers who met the scholarship student had more than doubled the amount of time they spent on the phone and the amount of donation money they secured. Their counterparts in a control group, who did not interact with the scholarship student, did not change on these persistence and performance measures.

Although these findings suggest that task significance may play an important role in increasing job performance, the study was subject to at least three limitations. First, rather than manipulating task significance directly, the experiment confounded two manipulations: task significance (information about the benefits of the work to others) and contact with beneficiaries (interaction with the individuals affected by the work). As such, it is not clear whether task significance was independently responsible for the performance effects observed. Second, the researchers were not able to measure mediating mechanisms in the field experiment. As a result, the study does not directly inform about why employee performance was increased by the experimental intervention. Third, the researchers assumed that all individuals would respond uniformly to the intervention. This assumption overlooks the important role that individual differences may play in moderating employees' responses to task significance.

In this article, I report three field experiments that build on the research of Grant et al. (2007) by addressing these limitations. First, across all three experiments, I used manipulations of task significance that involved no direct contact with beneficiaries, removing the confounding manipulation in prior research. Second, in Experiment 2, I measured mediating mechanisms, providing direct evidence about the psychological processes that explain the observed effects of task significance on job performance. Third, in Experiment 3, I examined the moderating role of two individual-differences variables, shedding light on the role of conscientiousness and prosocial values in moderating the performance effects of task significance. With these contributions, the experiments extend a program of research examining the social and relational context of job design (Grant et al., 2007), an important but understudied issue in work design research (Humphrey et al., 2007; Morgeson & Humphrey, 2006). In the following sections, I first discuss the role of two relational mechanisms in mediating the effects of task significance on job performance and then turn to the role of personality and values in moderating these effects.

Relational Mechanisms

Job design and social information processing theories accentuate a common mediating mechanism for explaining the consequences of task significance. Both perspectives propose that when employees perceive their jobs as high in task significance, they experience their work as more meaningful—that is, more purposeful and valuable (Hackman & Oldham, 1976; Zalesny & Ford, 1990). This experience of meaningfulness is proposed to increase job performance by motivating employees to invest additional time and energy in completing their assigned tasks (Fried & Ferris, 1987; Parker & Wall, 1998). However, in light of evidence that experienced meaningfulness may only partially mediate the association between task significance and performance (Humphrey et al., 2007), it is time for researchers to consider additional mediating mechanisms.

Systematic consideration of relational mechanisms may expand existing knowledge about how and why task significance affects job performance. Relational mechanisms are processes that influence employees' connections to other people (e.g., Bradbury & Lichtenstein, 2000; Chen, Boucher, & Tapias, 2006; Fiske, 1992; Holmes, 2000). Researchers studying job design and social information processing have recently called for more attention to relational mechanisms (Humphrey et al., 2007; Morgeson & Humphrey, 2006; Wrzesniewski, Dutton, & Debebe, 2003), as employees have basic motives to experience their actions as related and connected to other people (e.g., Baumeister & Leary, 1995; Ryan & Deci, 2000). Task significance provides such a connection by signaling to employees that their efforts influence the well-being of other people (Grant, 2007). In the following sections, I develop hypotheses to explain how task significance influences job performance by changing the perceived connection between an employee's actions on the job and the people who benefit from the job. By highlighting the contributions of employees' efforts to the welfare of others, task significance can increase employees' perceptions that their jobs are related and connected to other people.

Developing and testing theory about these relational mechanisms extends recent work on task significance in two ways. First, I empirically examine a proposition presented but not tested by Grant (2007; Grant et al., 2007) about perceived social impact as

a mediator of the effects of task significance on job performance. Second, I introduce perceived social worth as a new mechanism for mediating these effects, proposing that employees' feelings about how others value their contributions help to explain the effects of task significance on job performance. Together, these steps serve to theoretically and empirically advance existing knowledge about how and why task significance increases job performance.

Perceived Social Impact

Perceived social impact—the degree to which employees feel that their actions benefit other people—is one relational mechanism that may mediate the effects of task significance on job performance. Whereas *task significance* describes the extent to which a job provides opportunities to improve the welfare of others (Hackman & Oldham, 1976), *perceived social impact* describes the extent to which employees feel that their own actions improve the welfare of others (Grant, 2007). Task significance is proposed to cultivate perceived social impact by making salient that others are depending on employees' efforts (Grant et al., 2007). Beyond merely experiencing their jobs as meaningful, task significance enables employees to make a psychological link between their actions and potential positive outcomes for others. The awareness that one can act to benefit others signifies judgments of expectancy (effort will lead to effective performance) and instrumentality (effective performance will benefit others), motivating employees to invest additional time and energy in their work to achieve these outcomes, as predicted by expectancy theory (Van Eerde & Thierry, 1996; Vroom, 1964). Perceived social impact thereby transforms an abstract, intellectual awareness of opportunities into a concrete, emotionally driven understanding that one's personal actions can make a difference (Small & Loewenstein, 2003). Indeed, research shows that employees are more motivated to expend effort when they recognize that their actions can benefit others (Karau & Williams, 1993). Thus, it is hypothesized that task significance increases employees' perceptions of social impact, which, in turn, enhance their job performance.

Hypothesis 1: Task significance increases job performance.

Hypothesis 2a: Increases in perceived social impact mediate the effect of task significance on job performance.

Perceived Social Worth

Perceived social worth—the degree to which employees feel that their contributions are valued by other people—is a second relational mechanism that may mediate the effects of task significance on job performance. Whereas *perceived social impact* describes the degree to which employees believe that their actions benefit others, *perceived social worth* describes the degree to which employees believe that their actions are appreciated by others (Leary & Baumeister, 2000; see also Ashforth & Kreiner, 1999; Baumeister & Leary, 1995; Elliott, Colangelo, & Gelles, 2005). This is an important distinction, given that acting to have a positive impact on recipients does not necessarily signify that recipients will appreciate employees' efforts (e.g., Cheuk, Swearse, Wong, & Rosen, 1998; Fisher, Nadler, & Whitcher-Alagna, 1982). Thus, perceptions of social impact and social worth may each contribute to explaining the effects of task significance on job performance. When employees experience their jobs as high in task significance, their actions have a frequent, lasting impact on the lives of others. As a result, they are more likely to receive feedback that others appreciate their efforts, which conveys that their personal contributions are valued by others. As a result of this heightened perception of social worth, employees are likely to invest additional time and energy in their work. Psychologists have suggested that the pursuit of social worth is a basic human motivation (Baumeister & Leary, 1995; Ryan & Deci, 2000), and when employees feel that their personal, unique efforts are valued, they are more motivated to contribute, as demonstrated by both organizational researchers (Rhoades & Eisenberger, 2002) and psychologists (Harkins & Petty, 1982; Rosen, Mickler, & Collins, 1987). Thus, it is hypothesized that task significance will increase employees' perceptions of social worth, which, in turn, will enhance their job performance.

Hypothesis 2b: Increases in perceived social worth mediate the effect of task significance on job performance.

Boundary Conditions

Having described two relational mechanisms that may mediate the effects of task significance on job performance, I turn to the boundary conditions that may moderate these performance effects. Existing research reveals inconsistent relationships between task significance and job performance: Some studies have suggested positive associations, whereas others have suggested weak or null associations (e.g., Fried & Ferris, 1987). One explanation for these inconsistent relationships between task significance and job performance is that important moderators have not yet been detected. Although different individuals may respond differently to task significance, with the exception of growth need strength (Graen, Scandura, & Graen, 1986; Hackman & Oldham, 1976), researchers have examined few individual differences as moderators of task significance effects (Johns, Xie, & Fang, 1992; Morgeson & Campion, 2003). Much of the research on task significance was conducted before researchers had provided systematic evidence that job performance is influenced by individual differences in personality traits (e.g., Barrick, Mount, & Judge, 2001) and values (e.g., Meglino & Ravlin, 1998). As such, it is important to assess how personality traits and values may moderate the job performance effects of task significance. The following sections develop hypotheses to explain how variations in conscientious personalities and prosocial values may moderate the effects of task significance on job performance. Building and testing theory about individual-differences moderators extends the work of Grant et al. (2007) by abandoning the assumption that task significance will increase the performance of all employees, facilitating a more accurate understanding of how these effects vary as a function of individual differences.

Conscientiousness

The personality trait of conscientiousness describes the degree to which individuals tend to be disciplined, dependable, organized, goal oriented, and persistent (Costa, McCrae, & Dye, 1991). I

propose that task significance is more likely to increase job performance for less conscientious employees than for more conscientious employees. The rationale for this hypothesis is that the effort levels of less conscientious employees are more heavily influenced by perceptions of social impact and social worth. Because less conscientious employees do not naturally endorse strong work ethics (McCrae & Costa, 1999; Sarchione, Cuttler, Muchinsky, & Nelson-Gray, 1998), external cues may be necessary to motivate them to expend high levels of effort. By cultivating perceptions of social impact and social worth, task significance enables less conscientious employees to realize that their actions have meaningful consequences for the welfare of other people. Accordingly, task significance may signify to less conscientious employees that high levels of effort are worthwhile, increasing their performance by motivating them to invest additional time and energy in their work. In contrast, the perceptions of social impact and social worth cultivated by task significance may exert less influence on the performance of more conscientious employees, who tend to take pride in effective performance and display high effort in a wide range of circumstances (Barrick & Mount, 1991; Hurtz & Donovan, 2000; Judge & Ilies, 2002). Because they hold strong work ethics, good performance is a reward in itself for conscientious employees (e.g., Eisenberger, 1992). Thus, it is hypothesized that task significance is more likely to increase job performance for less conscientious employees.

Hypothesis 3a: Conscientiousness moderates the effect of task significance on job performance, such that the lower conscientiousness is, the greater is the effect of task significance on job performance.

Prosocial Values

Prosocial values describes the extent to which individuals regard protecting and promoting the welfare of others as important guiding principles in life (e.g., Schwartz, 1992; Schwartz & Bardi, 2001). I propose that task significance is more likely to increase job performance for employees with strong prosocial values than for employees with weak prosocial values. The rationale for this hypothesis derives from theory and research on needs–supplies fit, which suggests that when employees' jobs match their values, they are more willing to invest time and energy in performing effectively (Edwards, Cable, Williamson, Lambert, & Shipp, 2006; Kristof, 1996). Employees with strong prosocial values care about doing work that has a positive impact on others. Task significance communicates to employees with strong prosocial values that their jobs provide the opportunity to express and fulfill their values of benefiting others (Cable & Edwards, 2004; Clary et al., 1998; De Dreu, 2006; Meglino & Korsgaard, 2004; Rioux & Penner, 2001). As a result, employees with strong prosocial values are likely to display enhanced effort in response to task significance to express and fulfill their values of benefiting others. In contrast, employees with weak prosocial values are less concerned about the positive impact of their work on others. As such, task significance has less relevance to their value expression and fulfillment and is thereby less likely to influence their performance. Therefore, it is hypothesized that task significance is more likely to increase job performance for employees with strong prosocial values.

Hypothesis 3b: Prosocial values moderate the effect of task significance on job performance, such that the stronger the prosocial values are, the greater is the effect of task significance on job performance.

Overview of the Present Research

To test these hypotheses, I conducted three field experiments with different task significance manipulations and different job performance measures. The first and third experiments focused on fundraising callers soliciting alumni donations to a university, and the second experiment focused on lifeguards protecting swimmers at a community recreation center. I operationalized task significance in the form of stories, which have the capacity to provide rich information that is vivid, concrete, and personalized (Jenni & Loewenstein, 1997). Stories can function as inspirational devices (Piccolo & Colquitt, 2006) that provide tangible exemplars, registering with employees on a deep, emotional level and serving as memorable occasions for learning and understanding experiences (Bandura, 1978; Heath, Bell, & Sternberg, 2001; Martin, Feldman, Hatch, & Sitkin, 1983; Weick, 1995).

Experiment 1

I tested Hypothesis 1 with a longitudinal field experiment with callers at a university fundraising organization. This was a relevant context for examining the effects of task significance given that the callers were responsible for soliciting alumni donations to the university but received little information about the impact of these donations on others. As indicators of job performance, I collected measures of the number of pledges that callers obtained and the amount of donation money that they raised both before and after the intervention.

To provide a rigorous test of the effect of task significance on job performance, I used multiple comparison conditions. To demonstrate that task significance plays an important role in job performance, it may not be sufficient to simply compare the performance of employees who receive a task significance intervention with the performance of employees assigned to a control condition involving no experimental treatment. Such an experimental design leaves open several alternative explanations for observed effects, including that aspects of the information other than its content may be driving the effects (e.g., Aronson, Wilson, & Brewer, 1998; Cook & Campbell, 1979) as well as that attention from the research team, rather than the information itself, is the active ingredient in driving the effects (e.g., Adair, 1984; Franke & Kaul, 1978; Guerin, 1986; cf. Jones, 1992). Thus, to demonstrate unique effects of task significance, it is valuable to include comparison conditions in which employees receive information in a similar form and structure and receive equivalent attention from the research team, so that the conditions differ only in terms of the content of the information.

Thus, in addition to using a no-treatment control condition, I designed a comparison condition that met these criteria to achieve commensurability, or functional equivalence, between experimental conditions (e.g., Abelson, 1995; Cook & Campbell, 1979; Cook & Shadish, 1986; E. R. Smith, 2000). Whereas the task significance manipulation provided stories about the benefits of the job to others, the comparison condition provided stories about the bene-

fits of the job to the self. This comparison condition still included stories about positive outcomes of the job, but the stories focused only on positive impact on the self, with no attention to positive impact on others. This design provided an appropriate comparison with the task significance condition because information about benefits of the job to the self was unlikely to influence performance through perceptions of social impact and social worth. Stories about personal benefit have no direct implications for perceived social impact, as they do not focus on conveying information about the effects of employees' actions on others, nor for perceived social worth, as they do not focus on conveying information about others valuing employees' contributions. Thus, a condition exposing employees to stories about the personal benefits of the job provides an appropriate comparison for testing the performance effects of task significance.

Method

Sample and Design

Thirty-three paid callers (23 male, 10 female) participated in a longitudinal field experiment. The callers, who averaged 2.56 months of tenure on the job ($SD = 3.32$ months) and 20.58 years of age ($SD = 0.75$ years), were divided into three conditions. Callers in the task significance condition ($n = 12$) read two stories about how performing the job could make a difference in others' lives, as former callers had helped to fund student scholarships. Callers in the personal benefit condition ($n = 10$) read two stories about how performing the job could make a difference in their own lives, as former callers had benefited personally from the job by using the knowledge and skills that they gained to build successful careers. Callers in the control condition ($n = 11$) received no manipulation or treatment.

Measures

The fundraising organization supplied data on the two job performance measures in week-long intervals 1 week before and 1 month after the intervention. Both the number of pledges that callers earned and the amount of donation money that callers raised were automatically recorded by the organization's call-tracking software in 1-week periods before and after the intervention. The pledges and donation amounts were verified by a manager immediately on recording and then confirmed by a second manager on receipt from alumni donors.

Procedures

I conducted the experiment with the help of two research assistants over the course of 2 days. To prevent my own biases and expectations from influencing the results (e.g., Eden, 2003; McNatt & Judge, 2004; Rosenthal, 1994), I asked the research assistants to coordinate the interventions and served as the time keeper for the sessions. On each of the 2 days, the research assistants randomly divided callers into one of the three conditions using an alternating assignment procedure. This procedure prevented callers from self-selecting into experimental conditions, accomplishing randomization by assigning callers into conditions by names drawn out of a hat. The first name drawn was assigned to the task significance condition, the second to the control condition, the third to the personal benefit condition, and so on. One caller who was scheduled to participate in the personal benefit condition quit on the day of the intervention, reducing the number of participants in this condition from 11 to 10.

Callers in all three conditions were invited to a break room in the organization. The interventions lasted for a total of 20 min. For the two experimental conditions, the research assistants began by explaining that in prior surveys, many callers had requested more information about the impact of their work, and we were interested in understanding how sharing this information would affect them. The research assistants then distributed two stories to callers, which differed in content but not in length, depending on the condition to which callers were assigned. Callers in the task significance condition read two stories written by scholarship students about how the job had made a difference in others' lives by helping to finance student scholarships. One scholarship recipient wrote about how the scholarship had enabled him to pursue education in engineering and neuroscience and participate in a wide range of extracurricular activities. The other scholarship recipient wrote about how the scholarship had enabled her to attend school out of state and build connections with fellow scholarship students. Callers in the personal benefit condition read two stories written by former callers about how the job had made a difference in their own career. One former caller wrote about how she had directly leveraged the knowledge and skills that she developed as a caller to develop a satisfying, financially lucrative career in the real estate industry. The other former caller wrote about how her experiences as a caller had improved her teaching and organizational skills for graduate school. In the interest of standardization, the stories for the two experimental conditions were approximately the same length. All four stories were real stories; I solicited them directly from the scholarship students and former callers, whose contact information I obtained from the university development office.

In both conditions, the research assistants allowed callers to spend 5 min reading each story and 5 min discussing each story with each other. They then dismissed callers to resume their regularly scheduled work, asking them not to mention the stories to other callers. Callers in the control condition were also invited to the break room but completed surveys instead of reading stories. Managers provided data on the number of pledges earned and the amount of donation money solicited by callers in all three conditions in week-long intervals 1 week before and 1 month after the interventions.

Results

Means and standard deviations by condition are displayed in Table 1. To assess the effects of the intervention over time, I conducted repeated-measures analyses of variance (ANOVAs).

Number of Pledges Earned

A repeated-measures ANOVA indicated a significant Time × Condition interaction on the number of pledges that callers earned, $F(2, 30) = 5.04$, $p = .01$, $\eta^2 = .18$ (power = .40). In support of Hypothesis 1, paired-samples t tests showed that callers in the task significance condition increased in the number of pledges that they earned, $t(11) = 4.60$, $p = .001$, $d = 1.48$. There were no signif-

Table 1
Experiment 1 Means by Intervention Condition

Condition	No. of pledges earned		Amount of donation money raised ($)	
	Pre	Post	Pre	Post
Task significance	9.08	23.00	1,288.33	3,130.83
	(6.93)	(11.39)	(1,190.65)	(1,931.06)
Personal benefit	9.80	12.80	2,095.70	1,854.90
	(7.39)	(10.89)	(1,704.41)	(2,518.96)
Control	7.45	10.09	1,354.64	1,237.27
	(5.32)	(4.57)	(1,768.37)	(920.58)

Note. Standard deviations are in parentheses, and all significance tests reported in this article are two-tailed. Throughout the article, all effect sizes reported for paired-samples *t* tests are dependent *d*s computed from the original standard deviations (see Dunlap, Cortina, Vaslow, & Burke, 1996).

icant changes for the callers in the personal benefit condition, $t(9) = 0.78$, $d = 0.32$, or for the callers in the control condition, $t(10) = 1.75$, $d = 0.53$.

Amount of Donation Money Raised

A repeated-measures ANOVA indicated a significant Time × Condition interaction on the amount of donation money that callers raised, $F(2, 30) = 4.38$, $p = .02$, $\eta^2 = .21$ (power = .41). In support of Hypothesis 1, paired-samples *t* tests showed that callers in the task significance condition increased in the amount of donation money that they raised, $t(11) = 4.51$, $p = .001$, $d = 1.15$. There were no significant changes for the callers in the personal benefit condition, $t(9) = -0.30$, $d = -0.11$, or for the callers in the control condition, $t(10) = -0.24$, $d = -0.08$.

Discussion

This experiment provides initial support for the hypothesis that task significance can increase job performance. Fundraising callers who read stories about how the work of former callers was beneficial to scholarship students more than doubled 1 month later in the number of weekly pledges that they earned and the amount of weekly donation money that they raised. There were no significant changes in these performance measures for callers in a no-treatment control condition or for callers who received information about how the work of former callers was personally beneficial.

These results offer promising initial evidence for the effects of task significance on job performance. However, they also raise two critical unanswered questions. First, do the hypothesized mediating mechanisms of perceived social impact and perceived social worth explain these effects? Because these constructs were not measured in this study, additional research is necessary to assess mediation. Second, would these effects hold with different samples, contexts, manipulations, and dependent variables? To infer that task significance is responsible for the increases in job performance, it is important to conduct a constructive replication with a different intervention in different settings using different performance measures (e.g., Gordon, Slade, & Schmitt, 1986; Neuliep & Crandall, 1993; N. C. Smith, 1970).

Experiment 2

I examined these unanswered questions with a longitudinal field experiment with lifeguards at a community recreation center. Lifeguarding presented an exemplar case for testing these hypotheses because lifeguards perform jobs that have the potential to make a significant difference in the lives of beneficiaries but rarely encounter opportunities to perform rescues (Branche & Stewart, 2001; Girasek & Gielen, 2003). Although the mission of lifeguarding is to protect the health and safety of swimmers (American Red Cross, 1995; D. I. Miller & Dahl, 1981), most rescues take place at beaches, leaving pool lifeguards with few opportunities to enact the mission of their job (Branche & Stewart, 2001). Instead of performing rescues, pool lifeguards dedicate the bulk of their time and energy to monotonous, routine tasks of monitoring swimmers and enforcing rules, which place difficult demands on their attention span, vigilance, and motivation (Applied Anthropology Institute, 2001; Harrell & Boisvert, 2003; Ward, Johnson, Ward, & Jones, 1997). Maintaining lifeguard attention is so difficult that an international technology company has developed a computer surveillance drowning detection system, advertised as "the lifeguard's third eye," that uses a camera to monitor below and above the surface of a pool and notify lifeguards with an alarm when swimmers become motionless. Although some aquatics centers have purchased the system and it has already saved several lives (Poseidon Technologies, 2006), in most settings, the safety of swimmers depends heavily on lifeguard attention.

Given the importance and motivational challenges of lifeguarding, it is a natural occupation for examining the effects of task significance on job performance. As indicators of job performance, I collected measures of job dedication and helping behavior. *Job dedication* refers to self-disciplined, commitment-driven behaviors, such as investing additional time and energy in one's work, arriving on time, exercising initiative, and persisting in difficult tasks (Conway, 1999; Van Scotter & Motowidlo, 1996); *helping behavior* refers to actions taken voluntarily to benefit others (e.g., Anderson & Williams, 1996; Brief & Motowidlo, 1986; McNeely & Meglino, 1994).

Method

Sample and Design

Thirty-two paid lifeguards employed at a community recreation center in the midwestern United States participated in the experiment. The sample was 65.6% female, with a mean of 1.60 years of experience as a lifeguard ($SD = 1.05$ years) and a mean of 19.18 years of age ($SD = 8.32$ years). The aquatics center included several indoor and outdoor pools, but because the research was conducted during the winter, only the indoor pools were open. All 32 lifeguards worked in shifts, working multiple days per week while observed by multiple supervisors. The lifeguards were divided into two conditions. In the task significance condition ($n = 14$), lifeguards read four stories about other lifeguards rescuing drowning swimmers. In the personal benefit condition ($n = 18$), lifeguards read four stories that contained positive cues about the job but highlighted its benefits to the self rather than to others.

Measures

To measure the constructs of interest, I collected data from three different sources: the aquatics director, pool supervisors, and the lifeguards themselves. Unless otherwise indicated, the items used a Likert-type scale anchored at 1 = *disagree strongly* and 7 = *agree strongly.*

Mediator 1: Perceived social impact. As a measure of perceived social impact, both before and after the intervention, lifeguards responded to three items adapted from Spreitzer (1995) and Grant et al. (2007): "I am very conscious of the positive impact that my work has on others," "I am very aware of the ways in which my work is benefiting others," and "I feel that I can have a positive impact on others through my work."

Mediator 2: Perceived social worth. As a measure of perceived social worth, both before and after the intervention, lifeguards responded to two items adapted from Eisenberger, Stinglhamber, Vandenberghe, Sucharski, and Rhoades (2002): "I feel that others appreciate my work" and "I feel that other people value my contributions at work."

Dependent variable 1: Job dedication. As an indicator of job dedication, the aquatics director supplied the organization's list of the number of weekly hours that lifeguards voluntarily signed up to work both before and after the intervention. This was an appropriate measure of job dedication given that the aquatics center was understaffed, and all lifeguards had the opportunity to sign up for more hours without competition.

Dependent variable 2: Helping behavior. Four supervisors, who were blind to the experimental conditions and had not attended the in-services but had regularly observed the performance of the lifeguards, rated lifeguard helping behavior both before and after the intervention. The measure consisted of three items adapted to describe lifeguard helping behavior from an index developed by Podsakoff, MacKenzie, Moorman, and Fetter (1990). Supervisors were asked, "In the past week, how often has the lifeguard displayed each of the following behaviors?" The items used a Likert-type scale anchored at 1 = *never* and 7 = *always:* "Is very helpful to guests," "Goes out of his/her way to protect the safety of guests," and "Helps orient new guests even though it is not required as part of his or her job."

Manipulation check: Perceived task significance. To measure perceived task significance, both before and after the intervention, lifeguards responded to four items adapted from existing measures of task significance (Hackman & Oldham, 1975; Morgeson & Humphrey, 2006) to focus specifically on lifeguarding: "My job provides opportunities to substantially improve the welfare of guests," "A lot of guests can be positively affected by how well my job gets done," "My job enhances the welfare of guests," and "My job provides opportunities to have positive impact on guests on a regular basis."

Procedures

For the first round of data collection, four supervisors completed pretest performance evaluations over the course of 4 weeks, and lifeguards completed pretest surveys at the end of the 4-week period at a staff meeting. The intervention took place 2 weeks after the pretest surveys. Supervisors scheduled eight in-service days for the month and required lifeguards to attend one in-service monthly to refresh and update their knowledge and skills. Lifeguards signed up for the in-services according to their availability in small groups. I attended all eight in-services, and, to ensure that lifeguards did not self-select into the experimental conditions, I alternated the conditions so that lifeguards attending the first in-service were arbitrarily assigned to the task significance condition, lifeguards attending the second in-service were arbitrarily assigned to the personal benefit condition, and so forth. This alternating assignment procedure was appropriate for accomplishing randomization because lifeguards were selected to arrive for particular in-services on the basis of schedules randomly assigned by supervisors.

The in-services lasted 30 min. Before the sessions, supervisors informed the lifeguards that they would be participating in a study that would be beneficial to them and to the researchers conducting it. At all sessions, I began by introducing myself as an organizational psychologist conducting research on work motivation. In both conditions, I stated that I wanted to share several relevant stories with them and learn about their reactions. I then distributed printed stories for the lifeguards to read. To standardize the manipulations, in both conditions, I had lifeguards read four real stories of approximately the same length. In the task significance condition, lifeguards read four stories about rescues performed by other guards. In the personal benefit condition, lifeguards read four stories about how other lifeguards had used the knowledge and skills they gained in the job.

In both conditions, the lifeguards were allotted 15 min to read the stories. I observed them reading, and when they had finished reading, I asked them to discuss their reactions, focusing particular attention on what they found interesting and surprising. I then asked the lifeguards not to discuss the stories with other lifeguards and turned the in-service over to the coordinating supervisor, who began the next scheduled in-service activity. To assess the effects of the intervention, I had supervisors complete performance evaluations throughout the following month and lifeguards complete surveys at in-services during the following month. The aquatics director supplied job dedication data on the number of weekly hours that lifeguards worked 1 month before and after the intervention.

Results

Means and standard deviations by condition for all measured variables are displayed in Table 2, and internal consistency statistics and correlations across conditions are displayed in Table 3. To examine whether it was appropriate to aggregate the four supervisors' ratings of helping behavior into a single index, I computed intraclass correlation coefficients at both times for each item using a two-way mixed model with consistency agreement and average measure reliability (McGraw & Wong, 1996; Shrout & Fleiss, 1979). The intraclass correlation coefficients at Time 1 and Time 2 were .75 and .77 for the first item, .67 and .70 for the second item, and .78 and .68 for the third item, indicating acceptable levels of agreement (e.g., James, 1982; James, Demaree, & Wolf, 1984; Nunnally, 1978). I then calculated Cronbach's alpha for the three aggregated items and, given high internal consistency estimates (Time 1 $\alpha = .92$, Time 2 $\alpha = .94$), computed a mean of the three aggregated items to form a single index of supervisor helping.

Table 2
Experiment 2 Means by Intervention Condition

	Job dedication		Helping behavior		Perceived social impact		Perceived social worth		Perceived task significance	
Variable	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Task significance	7.06	10.11	3.81	4.62	4.92	5.70	3.96	5.00	4.97	5.48
	(2.74)	(3.60)	(.52)	(1.07)	(.88)	(1.04)	(1.57)	(.97)	(1.44)	(.94)
Personal benefit	7.39	6.28	4.17	3.57	4.63	4.58	4.79	4.39	4.99	4.63
	(5.98)	(5.29)	(.79)	(.90)	(1.00)	(.91)	(1.08)	(1.11)	(1.13)	(1.27)

Note. Standard deviations are in parentheses.

Manipulation Check

A repeated-measures ANOVA indicated a significant Time × Condition interaction on lifeguards' ratings of perceived task significance, $F(1, 21) = 5.72$, $p = .03$, $\eta^2 = .20$ (power = .58). Paired-samples t tests showed a significant increase in perceived task significance for lifeguards in the task significance condition, $t(8) = 2.19$, $p = .03$, $d = 0.47$, but not for lifeguards in the personal benefit condition, $t(13) = -1.04$, *ns*, $d = -0.23$.

Repeated-Measures Effects

I conducted repeated-measures ANOVAs to examine the between-subjects and within-subject effects of the intervention from the pretest to the posttest on each dependent variable and mediator and then conducted paired-samples t tests to facilitate the interpretation of these effects.

Job dedication. A repeated-measures ANOVA indicated a significant Time × Condition interaction on job dedication, $F(1, 25) = 11.08$, $p < .01$, $\eta^2 = .29$ (power = .99). In support of Hypothesis 1, paired-samples t tests showed that lifeguards in the task significance condition increased in the number of hours worked, $t(8) = 3.13$, $p < .01$, $d = 0.60$. Lifeguards in the personal benefit condition did not change significantly in the number of hours worked, $t(17) = -1.51$, $d = -0.20$.

Helping behavior. A repeated-measures ANOVA indicated a significant Time × Condition interaction on supervisor ratings of helping behavior, $F(1, 24) = 13.61$, $p < .01$, $\eta^2 = .36$ (power = .78). In support of Hypothesis 1, paired-samples t tests showed that lifeguards in the task significance condition increased in helping behavior, $t(10) = 2.16$, $p = .03$, $d = 1.08$. Lifeguards in the personal benefit condition decreased in helping behavior, $t(14) = -3.18$, $p = .01$, $d = -1.20$.

Perceived social impact. A repeated-measures ANOVA indicated a significant Time × Condition interaction on lifeguards' ratings of perceived social impact, $F(1, 20) = 7.04$, $p = .02$, $\eta^2 = .24$ (power = .67). Paired-samples t tests showed that lifeguards in the task significance condition increased in perceived social impact, $t(8) = 1.97$, $p = .04$, $d = 0.76$, whereas lifeguards in the personal benefit condition did not change significantly, $t(13) = -1.15$, $d = -0.31$.

Perceived social worth. A repeated-measures ANOVA indicated a significant Time × Condition interaction on lifeguards' ratings of perceived social worth, $F(1, 22) = 8.48$, $p = .01$, $\eta^2 = .27$ (power = .90). Paired-samples t tests showed that lifeguards in the task significance condition increased in perceived social worth, $t(8) = 2.09$, $p = .04$, $d = 0.80$, whereas lifeguards in the personal benefit condition did not change significantly, $t(14) = -1.74$, $d = -0.34$.

Mediation Analyses

To test Hypotheses 2a and 2b, I examined whether changes in perceptions of social impact and social worth mediated the effects of task significance on changes in job dedication and helping behavior. Following guidelines for testing mediation using ordinary least squares (OLS) regression in within-subject designs

Table 3
Experiment 2 Correlations Across Conditions

Variable	1	2	3	4	5	6	7	8	9	10
1. Job dedication T1	—									
2. Job dedication T2	.75***	—								
3. Helping behavior T1	.11	.11	(.92)							
4. Helping behavior T2	−.03	.01	−.03	(.94)						
5. Perceived social impact T1	.42*	.41*	.02	−.02	(.77)					
6. Perceived social impact T2	−.02	.34	−.17	.42*	.40	(.86)				
7. Perceived social worth T1	.08	−.04	.21	−.47*	.30	.18	(.90)			
8. Perceived social worth T2	.05	.34	−.11	−.02	.17	.53**	.58***	(.86)		
9. Perceived task significance T1	−.26	−.26	−.14	−.14	.24	.19	.15	.10	(.76)	
10. Perceived task significance T2	−.16	.03	.03	.42*	.26	.62**	−.08	.28	.49*	(.89)

Note. Cronbach's alphas appear in parentheses across the diagonal. T = Time.
* $p < .05$. ** $p < .01$. *** $p < .001$.

(Judd, Kenny, & McClelland, 2001), I calculated difference scores to represent changes in job dedication, helping behavior, perceived social impact, and perceived social worth by subtracting pretest scores from posttest scores. Although difference scores have numerous disadvantages (Edwards, 1995, 2001), supplementary analyses revealed that in this sample, alternative analytic approaches did not change the results. Thus, in the interest of parsimony, I report the tests of mediation using the different scores.

With these difference scores, I followed standard OLS regression procedures for mediation (Baron & Kenny, 1986; Kenny, Kashy, & Bolger, 1998). The first criterion for mediation, for the independent variable to affect the dependent variables, was met by prior analyses showing that the task significance condition increased in both helping behavior and social worth. The second criterion for mediation, for the independent variable to affect the mediating variables, was also met by prior analyses, which showed that the task significance condition increased in both perceived social impact and perceived social worth. I proceeded to test the third and fourth criteria for each dependent variable.

Job dedication. I began by examining whether changes in lifeguards' perceptions of social impact and/or social worth mediated the effects of task significance on changes in job dedication. To examine whether the mediators predicted the dependent variable when the independent variable was also included as a predictor, I regressed job dedication change on condition (0 = personal benefit, 1 = task significance), perceived social impact change, and perceived social worth change. The criterion was not met for perceived social worth change, which was not a significant predictor of changes in job dedication ($\beta = .03$). However, the criterion was met for perceived social impact change, which was a significant predictor of increases in job dedication ($\beta = .67$, $p < .01$). The final criterion, for the association between the independent variable and the dependent variable to decrease after inclusion of the mediator in the equation, was also met for perceived social impact change, as the effect of task significance on increases in job dedication in this regression was reduced to nonsignificance ($\beta = .08$). A Sobel test using the critical values suggested by MacKinnon, Lockwood, Hoffman, West, and Sheets (2002) indicated that the reduction in the effect of task significance after the inclusion of perceived social impact change was statistically significant ($z' = 2.19$, $p < .01$). Thus, although perceived social worth did not emerge as a mediator, in support of Hypothesis 2a, perceived social impact mediated the effects of task significance on job dedication.

Helping behavior. I then examined whether changes in lifeguards' perceptions of social impact and/or social worth mediated the effects of task significance on changes in helping behavior. To examine whether the mediators predicted the dependent variable when the independent variable was also included as a predictor, I regressed changes in supervisor ratings of helping behavior on condition (0/1), perceived social impact change, and perceived social worth change. The criterion was not met for perceived social impact change, which was not a significant predictor of changes in helping behavior ($\beta = -.13$). However, the criterion was met for perceived social worth change, which was a significant predictor of increases in helping behavior ($\beta = .65$, $p < .05$). The final criterion, for the association between the independent variable and the dependent variable to decrease after the mediator was included in the equation, was also met for perceived social worth change, as the effect of task significance on increases in helping behavior in this regression was reduced to nonsignificance ($\beta = .22$). A Sobel test using the critical values suggested by MacKinnon et al. (2002) indicated that the reduction in the effect of task significance after the inclusion of perceived social worth change was statistically significant ($z' = 1.86$, $p < .01$). Thus, although perceived social impact did not emerge as a mediator, in support of Hypothesis 2b, perceived social worth mediated the effects of task significance on helping behavior.

Discussion

This experiment offers several important findings that build on the results of Experiment 1. First, a different task significance manipulation with a different sample of employees showed increases in job performance using two new measures of job performance. Employees who received task significance cues increased in job dedication and helping behavior, whereas employees who received alternative cues did not increase on these measures. Second, two relational mechanisms mediated these performance effects of task significance. Increases in perceived social impact mediated the effects on job dedication, and increases in perceived social worth mediated the effects on helping behavior.[1] Together, these findings provide convergent support for the hypothesis that task significance can significantly increase job performance, and they shed light on the relational mechanisms that explain these effects. However, the results do not inform the boundary conditions described previously. Is task significance more likely to increase job performance for employees with low levels of conscientiousness and strong prosocial values?

Experiment 3

To examine boundary conditions for the effects of task significance on job performance, I returned to the fundraising organization, which had experienced full employment turnover since Experiment 1. To rule out the possibility that initial performance levels might influence employees' responses, I focused on a sample of newcomers to the organization who had just been hired and were undergoing training to begin working as callers. I obtained self-reports of conscientiousness and prosocial values, divided the callers into a task significance condition and a control condition,

[1] Why were the mechanisms patterned such that perceived social impact mediated the effects for job dedication and perceived social worth mediated the effects for helping behavior? Perceived social impact involves a focus on how one's actions on the job affect others. When employees see their actions on the job as achieving important outcomes in others' lives, they may display greater job dedication to realize the potential impact of their actions on others. Conversely, perceived social worth involves a focus on how one's actions on the job are evaluated by others. A heightened perception of social worth signifies to employees that their behaviors, irrespective of whether they are in-role or extrarole, are valued by others. As such, employees are more willing to venture beyond the prescriptions of their roles to help others. In short, consistent with the results of this study, because perceived social impact is a judgment of the effects of one's job behavior, it is likely to motivate job-directed behavior. Because perceived social worth is a judgment of how other people evaluate one's behavior, it is likely to motivate other-directed behavior (e.g., McNeely & Meglino, 1994; Rioux & Penner, 2001).

and then measured their performance during their 1st week on the job.

Method

Sample and Design

Thirty-four paid callers participated in the experiment as part of their training to begin working in the organization. The sample was 62% female, with a mean of 20.06 years of age ($SD = 1.18$ years), and all of the callers had just been hired. They were randomly divided into two conditions. In the task significance condition ($n = 17$), callers learned about how the funds raised by the organization had benefited scholarship students. In the control condition ($n = 17$), callers completed surveys but received no experimental treatment.

Measures

Unless otherwise indicated, the items used a Likert-type scale anchored at 1 = *disagree strongly* and 7 = *agree strongly.*

Moderator 1: Conscientiousness. To measure conscientiousness, before the intervention, I had callers complete the Conscientiousness subscale of Ten Item Personality Inventory developed and validated by Gosling, Rentfrow, and Swann (2003), including "I see myself as dependable and self-disciplined" ($\alpha = .86$).

Moderator 2: Prosocial values. To measure prosocial values, before the intervention, I had callers complete three items adapted from the Benevolence subscale of the Portrait Values Questionnaire developed by Schwartz et al. (2001), including "It is important to me to respond to the needs of others. I try to support those I know" ($\alpha = .69$).

Dependent variable: Job performance. To measure job performance, after callers' 1st week on the job, I obtained data on the number of pledges that callers had earned. As in Experiment 1, the pledges were confirmed by a manager immediately after they were recorded and then cross-checked by a second manager after they had been received from alumni donors. I measured performance during callers' 1st week on the job to ensure that they had equivalent opportunities to perform (Blumberg & Pringle, 1982). In the 1st week, callers were making calls to a common pool of alumni donors, which provided them with equal access to potential donors. In subsequent weeks, callers were assigned to different pools of alumni donors with varying donation histories, which afforded some callers access to donors who were more likely to give.

Procedures

Callers arrived for training before they began their 1st day on the job. The organization granted me access to each new caller during training. When callers arrived, they were randomly assigned to one of two break rooms in the organization. Random assignment was accomplished with a computer program that assigned callers to a room on the basis of the order in which they arrived. Callers in both conditions arrived and learned that the research team was studying work motivation. They first completed a brief survey, which included the measures of conscientiousness and prosocial values. Next, the procedures differed between the two conditions. Callers in the task significance condition read the two stories written by scholarship students described in Experiment 1. Callers in the control condition read alternative information about the organization's policies and procedures. The control condition included this information rather than stories about personal benefit, as in the two previous experiments, because managers had recently developed a new recruiting initiative that focused on the personal benefits of the job. Sharing this information during training would have been redundant with the recruiting initiative; to prevent boredom, it was important to ensure that callers in both groups encountered novel information.

In both conditions, callers spent the same amount of time in training. They were divided into separate rooms to provide sufficient space for all callers to participate. After the intervention was complete, the stories were collected by the research team so that callers in one room had no exposure to the information that callers in the other room received, and managers were not aware of the conditions to which callers were assigned. One week later, the director of the organization provided performance data for all callers.

Results and Discussion

An independent-samples t test showed that callers in the task significance condition earned more pledges ($M = 27.90$, $SD = 13.69$) than callers in the control condition ($M = 15.85$, $SD = 20.33$), $t(32) = 2.03$, $p = .05$, $d = 0.72$ (power = .66). To examine Hypotheses 3a and 3b, I conducted moderated OLS regression analyses following the procedures recommended by Aiken and West (1991; see also Cohen, Cohen, West, & Aiken, 2003). I began by centering the moderators of conscientiousness and prosocial values (i.e., subtracting the mean score from each individual score for each moderator) and multiplied each centered moderator by the condition variable to create interaction terms. I then entered the condition variable, centered moderators, and interaction terms into OLS regression analyses. The results of these analyses, which are displayed in Table 4, indicate that the Condition × Conscientiousness interaction and the Condition × Prosocial Values interaction were significant predictors of the number of pledges earned.

To facilitate the interpretation of these results, I plotted the simple slopes at one standard deviation above and below the mean of perceived task significance and conscientiousness (Aiken & West, 1991). In support of Hypothesis 3a, the task significance intervention had a stronger effect on performance when conscientiousness was low (see Figure 1). Condition was strongly related to

Table 4
Experiment 3 Moderation Analyses

Variable	β	$t(33)$
Condition (0 = control, 1 = task significance)	.09	0.58
Conscientiousness	.59	3.24^{**}
Prosocial values	−.59	-3.29^{**}
Condition × Conscientiousness interaction	−.70	-3.87^{**}
Condition × Prosocial Values interaction	.41	2.33^{*}

Note. All significance tests are two-tailed. A hierarchical regression showed that the adjusted squared correlation increased significantly after the two interaction terms were added, from .20 to .51, $F(2, 28) = 8.84$, $p < .01$. Because the three-way interaction term was not statistically significant, in the interest of parsimony, it is not reported here.
$^{*}p < .05$. $^{**}p < .01$.

the number of pledges earned when conscientiousness was low ($r = .70$, $p < .01$) but not when it was high ($r = .05$, *ns*). In support of Hypothesis 3b, the task significance intervention had a stronger effect on performance when prosocial values were strong (see Figure 2). Condition was strongly related to the number of pledges earned when prosocial values were strong ($r = .68$, $p = .03$) but not when they were weak ($r = -.08$, *ns*). By extending the effects of task significance to the job performance of newcomers, the results indicate that task significance can increase job performance for novice as well as veteran employees. The results also serve to illuminate the boundary conditions for these effects: Task significance was more likely to increase job performance for employees with low levels of conscientiousness and strong prosocial values.

General Discussion

Although job design and social information processing theories propose that task significance increases job performance, extant research has not revealed whether—and, if so, how and when—task significance has a causal effect on performance. The purpose of this article was to fill this gap by reporting three field experiments to examine the job performance effects, relational mechanisms, and boundary conditions of task significance. In Experiment 1, fundraising callers who read stories about former callers helping to finance student scholarships increased significantly 1 month later in the number of weekly pledges they earned and the amount of weekly donation money they raised. Fundraising callers who read stories about former callers benefiting personally from the job did not change on these performance measures, nor did fundraising callers in a no-treatment control condition. In Experiment 2, lifeguards who read stories about other lifeguards rescuing swimmers increased 1 month later in hours worked, supervisor ratings of helping behavior, and perceptions of social impact and social worth, whereas lifeguards who received no task significance cues did not increase on these measures. The effects on job dedication and helping behavior were mediated by increases in perceptions of social impact and social worth, respectively. In Experiment 3, fundraising callers who received task significance cues displayed higher performance in their 1st week on the job than fundraising callers in a control condition. These effects were moderated by conscientiousness and prosocial values, such that callers with low levels of conscientiousness and strong prosocial values were most responsive to task significance.

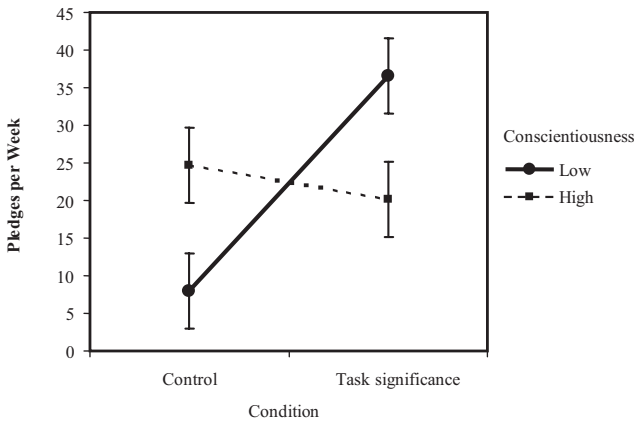

Figure 1. Experiment 3 regression slopes for conscientiousness.

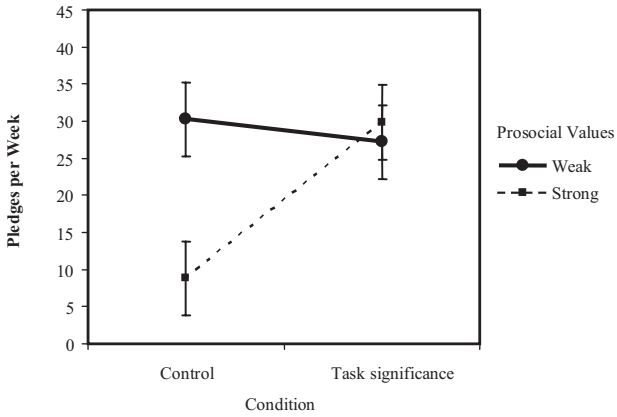

Figure 2. Experiment 3 regression slopes for prosocial values.

Theoretical Contributions

This article offers three distinctive contributions to theory and research on task significance in the job design and social information processing literatures. The first contribution lies in demonstrating the causal effects of task significance on job performance. As discussed previously, researchers have long assumed that task significance increases job performance, but cross-sectional designs and confounded manipulations have precluded rigorous causal inferences. The results across three field experiments provide convergent support for the causal effects of task significance on job performance measures ranging from pledges earned and funds raised to hours worked and helping ratings. Moreover, conducting the experiments in two different occupations with different manipulations of task significance lends generalizability to the performance effects. For fundraising callers, the experience of task significance is quite indirect, as the donations that they raise are channeled into a central university development fund and then distributed to scholarship students. Callers are thus distanced from their impact physically and temporally as well as psychologically; rather than benefiting from callers' personal efforts, scholarship students benefit from the total sum of funds raised by the organization. The task significance manipulation for the lifeguards was even more conservative; although their personal actions have the potential to directly save lives, the experience of task significance occurs infrequently, as they encounter few opportunities to perform rescues. The task significance manipulation thereby focused on the vicarious impact of other lifeguards' efforts on swimmers.

The findings that task significance increased job performance across different occupations, samples, manipulations, and measures lend credibility to long-held assumptions about the significance of task significance in shaping employees' behaviors. The experiments thus suggest that researchers might have put the cart before the horse in reducing task significance to a dimension of job complexity (e.g., Gerhart, 1988; Hogan & Martell, 1987) or treating it as merely one of many positive social cues that can affect job perceptions (see Zalesny & Ford, 1990). The strong effects of relatively weak manipulations (Prentice & Miller, 1992) suggest

that researchers should take seriously the notion that task significance is an important aspect of job experiences that is worthy of study in its own merit.

The second contribution lies in elaborating the relational mechanisms that mediate the job performance effects of task significance. In a recent review, Ambrose and Kulik (1999) concluded, "After twenty years of research, a clear picture of the psychological and behavioral effects of job design has emerged" (p. 262). Scholars have begun to challenge this conclusion as premature, calling attention to the dearth of knowledge about the role of job characteristics and social cues in shaping employees' experiences of interpersonal relationships (Humphrey et al., 2007; Latham & Pinder, 2005; Morgeson & Humphrey, 2006; Parker, Wall, & Cordery, 2001; Wrzesniewski et al., 2003). However, little theory and research have directly attended to these relational mechanisms. Although job design researchers explicitly define task significance as a relational job characteristic that connects employees' efforts to the welfare of other people (Grant, 2007) and social information processing researchers propose that relationships are sources of task significance perceptions (Zalesny & Ford, 1990), both perspectives assume that the mechanism for explaining task significance effects is job focused rather than other focused. The experience of meaningfulness is a judgment of the general value and purpose of the job, with no reference to the people who it affects.

This article takes a step toward filling this gap by identifying two relational mechanisms that explain the effects of task significance on job performance. The focus on perceptions of social impact and social worth moves toward "socializing" job design and social information processing theories by emphasizing the relational mechanisms through which task significance connects employees' jobs and actions to other people. The findings suggest that task significance is not merely received from job characteristics and social cues and then processed as job-focused cognition isolated from other people. Instead, employees process task significance as true social cognition (Fiske & Haslam, 1996), experiencing their jobs as more strongly related to other people through heightened perceptions of social impact and social worth. The attention to relational mechanisms thus broadens existing knowledge about the social psychological processes through which task significance influences employees' behaviors.

The third contribution lies in extending the current understanding of the boundary conditions under which task significance is more and less likely to influence job performance. Whereas job design research focuses heavily on growth need strength (Graen et al., 1986; Johns et al., 1992) and social information processing research devotes relatively little attention to boundary conditions (Zalesny & Ford, 1990), this article contributes theory and evidence to explain how personality traits and values play a role in moderating task significance effects. The findings suggest that task significance is more likely to increase performance for employees with low levels of conscientiousness, whose effort levels tend to be most responsive to cues about social impact and social worth. The findings also suggest that task significance is more likely to increase performance for employees with strong prosocial values, which can be expressed and fulfilled by task significance. Together, these propositions and supportive results take an important step toward specifying the boundary conditions that delineate when task significance is more and less likely to affect performance.

This article also offers contributions to theory and research on work motivation and performance. Although early frameworks on expectancy theory (Vroom, 1964) and intrinsic motivation (Staw, 1977, 1980) included a wide range of intrinsic outcomes that could drive employee motivation, the majority of work motivation and performance research has focused on self-interested intrinsic outcomes, such as enjoyment of the work itself (e.g., Gagné & Deci, 2005), personal equity and justice (Ambrose & Kulik, 1999), and learning (e.g., Porath & Bateman, 2006; Seijts, Latham, Tasa, & Latham, 2004). In part because of the rise of the norm of self-interest (Ferraro, Pfeffer, & Sutton, 2005; D. T. Miller, 1999), the importance of other-focused, prosocially oriented intrinsic outcomes has been underrepresented in work motivation and performance research (Meglino & Korsgaard, 2004; Shamir, 1991). This article takes a step toward filling this gap by focusing on the motivating potential of other-focused, prosocially oriented intrinsic outcomes: opportunities to have a positive impact on other people. The experiments presented here suggest that interventions designed to enable employees to gain a deeper understanding of how their work benefits others, not only themselves, may play an important role in increasing work motivation and performance.

Limitations

The experiments presented in this article are subject to a number of important limitations. First, because the task significance cues were shared in a controlled, monitored, regulated environment, it is unclear how allowing managers and employees to share their own information would unfold and whether this would open doors for managers to falsify stories to manipulate employees (e.g., Alvesson & Willmott, 1992). Further research will be instrumental in shedding light on the ethical challenges of the unregulated sharing of task significance cues. Second, it is not possible to rule out the potentially biasing effects of diffusion between treatment conditions (Cook & Campbell, 1979). In all three experiments, employees might have conversed about the interventions and, on realizing that they received different treatments, might have formulated hypotheses about how they were expected to behave or felt dejected that they did not receive the alternative treatment. Third, employees in all three of the samples were relatively young. It is necessary in future research to examine whether similar patterns of effects emerge among older, more experienced employees.

Finally, in the first experiment, it appears that employees in the task significance and control conditions began with lower levels of performance than employees in the personal benefit condition before the experimental manipulations were introduced. As such, because of regression to the mean, it is possible that their performance levels would converge over time (Campbell & Kenny, 1999). The experiments do not entirely rule out the possibility of regression to the mean, but this is an unlikely interpretation in light of the findings that task significance increased performance across three experiments with different samples, manipulations, and dependent measures. Although the samples in each experiment met minimum sample size criteria for controlled experiments (Rosenthal & Rosnow, 1991), the small samples across experiments might not have ensured equivalence between conditions. Moreover, as noted by an anonymous reviewer, the low statistical power associated with several of the analyses might have been

responsible for the null results obtained in the control conditions across the three experiments. Since the effect sizes were smaller in the control conditions than the experimental conditions, larger samples may be necessary for a more precise analysis of whether there are significant changes in the dependent variables in the control conditions. Thus, it is important for future research to replicate these results with larger samples and random assignment stratified by equivalent performance levels between conditions.

Future Directions

The experiments also suggest several valuable directions for future research. First, further theoretical development and empirical evidence is needed to understand how multiple "doses" of task significance may influence employees. Will repeated presentations of task significance cues help to reinforce employees' understandings of the social impact and social worth of their work, or will employees habituate to the cues? It is important for researchers to examine variations in the temporal dynamics of employees' reactions to task significance, a step that work design and motivation researchers have frequently recommended but rarely enacted (e.g., Campion & McClelland, 1993; Fried & Slowik, 2004). Second, this article adopted a motivational lens on job performance. In fundraising and lifeguarding, performance is based primarily on motivation: Additional effort and persistence are sufficient to increase performance. For occupations in which performance depends on ability or opportunity, task significance may be less effective in increasing performance, as employees may lack the knowledge, skills, and relevant situations to have a positive impact on others. Thus, future research should examine whether task significance is less likely to increase performance in jobs in which performance depends more heavily on ability and opportunity than on motivation.

Third, I examined new relational mechanisms on the basis of prior evidence that experienced meaningfulness only partially mediates the association between task significance and performance. As suggested by an anonymous reviewer, to gain a more complete understanding of the performance effects of task significance, it is worthwhile for researchers to investigate the linkages between experienced meaningfulness and the relational mechanisms of perceived social impact and social worth. One possibility is that experienced meaningfulness is unrelated to perceptions of social impact and social worth. From this perspective, task significance may simultaneously increase all three psychological states, which would play independent roles in mediating performance effects. An alternative possibility is that experienced meaningfulness is correlated with perceptions of social impact and social worth. From this perspective, it would be useful for researchers to tease apart whether experienced meaningfulness is an antecedent and/or consequence of perceptions of social impact and social worth. These endeavors will help to cumulate knowledge about the relative roles of and relationships between the three mechanisms in explaining reactions to task significance.

Fourth, Hackman and Oldham (1976) originally defined task significance in terms of opportunities to benefit other people both outside the organization (clients, customers, patients) and inside the organization (coworkers, supervisors). Consistent with this conceptualization, the theoretical framework presented in this article is applicable to both external and internal beneficiaries. However, it would be constructive for researchers to investigate how the framework may differ for these two groups of beneficiaries. On one hand, task significance may be more likely to translate into perceptions of social impact and social worth when employees are benefiting others inside the organization, as employees have regular access to frequent, direct feedback from their coworkers and supervisors. On the other hand, task significance may be more likely to translate into perceptions of social impact and social worth when employees are benefiting others outside the organization, as feedback from these external sources may be more novel and extended toward a broader purpose that affects a larger group of people. Further research will provide valuable insight into how the psychological and behavioral effects of task significance may differ for external versus internal beneficiaries.

Fifth, as observed by an anonymous reviewer, there are conditions under which perceptions of social impact and social worth may diverge. For example, employees who perform "dirty work" that is physically, socially, or morally tainted, such as garbage collectors, often feel that their work is devalued by the very people who benefit from it (Ashforth & Kreiner, 1999). As a second example, politicians often implement policies that they see as benefiting their constituents but feel devalued by the people who do not support their policies. Researchers may investigate how differences in personal values contribute to these divergences: When the values that employees endorse differ from the values that beneficiaries endorse, employees may perceive social impact without social worth.

Finally, my hypotheses and experiments have focused on the effects of high task significance, with little attention to the effects of low task significance. Researchers should explore how different experiences of low task significance may be associated with different psychological states and behaviors. My perspective has assumed that low task significance leads to low perceptions of social impact and worth, as employees are performing work that has little impact on and value to others. Conversely, low task significance may also be associated with perceptions of harming, rather than benefiting, others. Consider employees in occupations such as health care and police work, in which causing harm is often inevitable in the process of benefiting others. In these occupations, task significance may serve as a psychological resource in these situations, enabling employees to cope with and justify the experience of doing harm on the basis of advancing a greater good (Grant & Campbell, in press; Molinsky & Margolis, 2005). Research on these issues will help to further illuminate the boundary conditions of task significance, identifying contingencies that moderate its effects on employees' psychological and behavioral reactions. However, in other industries, such as tobacco and alcohol, employees are responsible for products and services whose likelihood of causing harm increases as sales increase. In these industries, doing harm may make it difficult for employees to understand how their work is benefiting others, reducing the experience of task significance. Researchers should investigate the role of task significance in employee motivation and performance in these industries, as well as the strategies that employees use to cope with the knowledge that their industries provide employment and income but may harm customers, consumers, and society at large (see Ashforth & Kreiner, 1999).

Practical Contributions

This article highlights practical, affordable opportunities for managers to share task significance stories with employees—and for employees to seek out and distribute task significance stories amongst themselves—for the purpose of enhancing and sustaining performance. Although scholars have begun to devote considerable attention to the value of stories and narratives as interpretive lenses for understanding employees' experiences (e.g., Gabriel, 2000; Pentland, 1999), the findings presented here highlight the value of stories and narratives as corrective lenses for reframing and reconstructing employees' experiences. This article underscores the practical value of harnessing stories as resources for changing, as well as understanding, employees' experiences. The shift in emphasis from story as interpretive lens to story as corrective lens paves a path for merging the explanation goals of narrative research with the application goals of action research. Such a shift in focus may enable organizational researchers embracing interpretive and applied objectives to collaborate in examining how stories can serve as tools for researchers, practitioners, and employees to improve individuals' experiences in organizations.

Conclusion

Building on the research program of Grant and colleagues (Grant, 2007; Grant et al., 2007), this article addresses unanswered questions about the job performance effects, relational mechanisms, and boundary conditions of task significance. Although many employees perform jobs that are high in task significance—they protect and promote the health, safety, and well-being of other people—they are often distanced from information about how these efforts make a difference. Three field experiments with fundraising callers and lifeguards suggest that mere exposure to task significance cues can enhance job performance by fostering a deeper understanding of the social impact and social value of one's work. As Colby et al. (2001) found in a nationally representative study of Americans, "any job can be experienced as contributing to others' welfare" (p. 483). Task significance cues may thereby play an important role in contributing to the performance of employees and to the welfare of the individuals, groups, communities, and societies they serve.

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