

Impact and the art of motivation maintenance: The effects of contact with beneficiaries on persistence behavior [☆]

Adam M. Grant ^{a,*}, Elizabeth M. Campbell ^a, Grace Chen ^a, Keenan Cottone ^a,
David Lapedis ^b, Karen Lee ^a

^a Department of Psychology, University of Michigan, 530 Church St., Ann Arbor, MI 48109-1109, USA

^b Organizational Studies, University of Michigan, USA

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Abstract

We tested the hypothesis that employees are willing to maintain their motivation when their work is relationally designed to provide opportunities for respectful contact with the beneficiaries of their efforts. In Experiment 1, a longitudinal field experiment in a fundraising organization, callers in an intervention group briefly interacted with a beneficiary; callers in two control groups read a letter from the beneficiary and discussed it amongst themselves or had no exposure to him. One month later, the intervention group displayed significantly greater persistence and job performance than the control groups. The intervention group increased significantly in persistence (142% more phone time) and job performance (171% more money raised); the control groups did not. Experiments 2 and 3 used a laboratory editing task to examine mediating mechanisms and boundary conditions. In Experiment 2, respectful contact with beneficiaries increased persistence, mediated by perceived impact. In Experiment 3, mere contact with beneficiaries and task significance interacted to increase persistence, mediated by affective commitment to beneficiaries. Implications for job design and work motivation are discussed.

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Scholars and practitioners care about cultivating, increasing, and maintaining work motivation. In the past three decades, extensive research has focused on motivating employees by redesigning and enriching the work itself (e.g., Griffin, 1983, 1987; Hackman & Oldham, 1976, 1980). However, these efforts can be costly and

time-consuming, and the extent to which assigned tasks can be redesigned is often limited by the requirements and expectations of customers, clients, and suppliers. Accordingly, these interventions have often had mixed effects and unintended consequences (Morgeson & Campion, 2002, 2003; Parker & Wall, 1998).

* Corresponding author.

E-mail address: amgrant@umich.edu (A.M. Grant).

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Early models of work design devoted considerable attention to the social and relational characteristics of jobs and tasks that structure opportunities to interact with other people (Hackman & Lawler, 1971; Trist & Bamforth, 1951; Turner & Lawrence, 1965). Redesigning the social and relational characteristics of work may be a promising solution to the limitations of traditional work redesign interventions, as jobs can be structured to provide opportunities for interpersonal interaction without changing the nature of the assigned tasks that employees perform. However, as work design research has developed, the social and relational characteristics of work have been neglected (Grant, *in press*; Morgeson & Humphrey, *in press*; Latham & Pinder, 2005). The job characteristics model (JCM; Hackman & Oldham, 1975, 1976), the dominant model of work design in organizational research, includes only one job characteristic that focuses directly on relationships with other people: task significance, the degree to which an employee's work affects the health and well-being of other people. Meta-analyses suggest that task significance enhances motivation by enabling employees to experience their work as more meaningful (Fried & Ferris, 1987; Morgeson & Humphrey, *in press*).

In providing guidelines for redesigning work to increase task significance, Hackman, Oldham, and colleagues recommended establishing contact between employees and the beneficiaries of their work—clients, customers, patients, and other recipients and constituents who are positively affected by the jobs that employees perform (Hackman & Oldham, 1980; Hackman, Oldham, Janson, & Purdy, 1975). Contact with beneficiaries is assumed to enhance perceived task significance, and thereby employee motivation, by enabling employees to directly see the consequences of their work for other people. However, rather than theoretically developing and empirically testing these principles of work redesign, organizational researchers have largely abandoned them. Dodd and Ganster (1996, 331) dismissed the importance of task significance in employee motivation, emphasizing that it is one of two job characteristics that have “seldom emerged as strong predictors of outcomes.” Of the two instruments commonly used to measure motivational job design, one does not include task significance (Sims, Szilagyi, & Keller, 1976); when using the other instrument, researchers treat task significance as one of five dimensions of job complexity, rather than as a noteworthy job characteristic in its own right (Ferris & Gilmore, 1985; Gerhart, 1988; Hogan & Martell, 1987).

In light of recent evidence that many employees define the purpose of their work in terms of having a positive impact on the beneficiaries of their efforts (Colby, Sippola, & Phelps, 2001; Ruiz-Quintanilla & England, 1996), and that service jobs providing opportunities to have a positive impact on beneficiaries are

becoming increasingly prevalent in national and international workforces (Cascio, 1995, 2003; Parker, Wall, & Cordery, 2001), the time is ripe for organizational scholars to develop and test the hypothesis that structuring jobs and tasks to provide contact with beneficiaries can enhance work motivation. In this article, we take a step toward filling this gap in organizational research. We propose that employees can be motivated to invest additional time and energy in their work when jobs and tasks are relationally structured to provide opportunities for respectful contact with the beneficiaries of their efforts. We present the results of three randomized, controlled experiments—a field experiment with fundraising callers and two laboratory experiments—that test this hypothesis and examine mediating mechanisms and boundary conditions. Together, our results suggest that even minimal, brief contact with beneficiaries can enable employees to maintain their motivation.

Contact with beneficiaries and motivation maintenance

Motivation is an umbrella concept encapsulating the psychological processes that direct, energize, and sustain human behavior (e.g., Mitchell & Daniels, 2003). Our focus is on a particular aspect of motivation, *motivation maintenance*, the degree to which individuals continue to invest time and energy in their work. Consistent with prior research (Blau, 1993; Miceli & Castelfranchi, 2000; Sandelands, Brockner, & Glynn, 1988), we use the term persistence—the amount of time an individual spends on a task—to capture motivation maintenance.

In line with the assumptions of prior job design research (Hackman & Oldham, 1980; Hackman et al., 1975), we expect that contact with beneficiaries can enhance the persistence behavior of employees. Contact with beneficiaries is the degree to which jobs and tasks are relationally structured to provide employees with opportunities for exposure to and interactions with the people affected by their work (Grant, *in press*). In many occupational and organizational contexts, employees lack opportunities for contact with beneficiaries. For example, automotive engineers rarely meet the people who drive their cars, and textbook editors rarely meet the people who read their books. When these jobs are relationally designed to provide opportunities for contact with beneficiaries, employees may become aware of the significance of their tasks and thereby maintain their motivation in order to have a positive impact on beneficiaries.

Job design researchers have assumed these motivational benefits of contact with beneficiaries (Hackman & Oldham, 1980; Hackman et al., 1975), but little research has examined them directly. Instead, researchers have focused on the detrimental effects of contact with beneficiaries. For example, research on emotional labor,

service work, and burnout indicates that interactions between physicians, caregivers, nurses, and their patients often become difficult, unpleasant, and antagonistic (e.g., Locke, 1996; Savicki & Cooley, 1994), teacher-student communications often become ungrateful and hostile (e.g., Zapf, 2002), and exchanges between service representatives and customers often become aggressive and argumentative (e.g., Grandey, Dickter, & Sin, 2004). Together, these studies underscore the importance of attending to the content of interactions with beneficiaries, documenting how disrespectful, hostile, discourteous contact with beneficiaries can be demotivating, stressful, and emotionally exhausting (for reviews, see Cordes & Dougherty, 1993; Lee & Ashforth, 1996; Maslach, Schaufeli, & Leiter, 2001; Morris & Feldman, 1996; Zapf, 2002). However, little research has empirically evaluated the motivational impact of positive interactions with beneficiaries. We aim to fill this gap by predicting that respectful contact with beneficiaries increases persistence behavior. Respectful contact is the degree to which communications between employees and beneficiaries are characterized by courtesy and appreciation (Campbell, 1990; Weick, 1993; see also Barry & Crant, 2000). For example, at Medtronic, a medical technology company, jobs are structured to provide employees with opportunities for respectful contact with patients whose lives have been changed by the company's products. Managers and employees report that this enables employees to understand how their work makes a difference in patients' lives, which in turn increases their motivation (George, 2003). This assertion is supported by social psychological research indicating that respectful contact with victims in need can enable individuals to recognize the potential impact of their actions on the victims, which motivates them to act to provide help (Latané & Darley, 1970).

Hypothesis 1. Respectful contact with beneficiaries increases persistence behavior.

Experiment 1

We tested this hypothesis with a longitudinal field experiment in a fundraising organization in which callers were responsible for soliciting university alumni donations. This was an appropriate setting for testing our hypotheses for at least two reasons. First, as the prevalence of call centers rises, organizational scholars have observed significant motivational challenges in telephone service and solicitation jobs, which include frequent rejections, harsh feedback, and monotonous tasks (e.g., Batt, 1999, 2002). Second, a significant portion of the donations raised by callers was channeled directly toward undergraduate student scholarships, but callers did not have the opportunity to interact with the student

beneficiaries of these scholarships. We predicted that when provided with opportunities to interact respectfully with these student beneficiaries, callers would be willing to maintain their motivation in making repetitive phone calls, as observed in their persistence behavior and their objective job performance. Because performance in telephone solicitation jobs depends heavily on motivation and persistence (e.g., Seligman & Schulman, 1986), we expected that the more persistent callers were willing to be on the phone, especially in response to inevitably frequent rejections in this line of work, the more money they would secure. Given that the callers were paid employees, not volunteers, and that they received incentive compensation for donations raised, this sample provided a conservative test of our hypotheses.

Method

Participants and design

Thirty-nine callers (21 male, 18 female, average job tenure of 9.17 months) working for a university development fundraising organization participated in our experiment. The experiment varied respectful contact with beneficiaries between callers across three conditions. We randomized the conditions according to work schedules, stratified by tenure and gender in order to avoid systematic differences in motivation (e.g., Katz, 1978). Other than work schedules, tenure, and gender, we were blind to all additional information about callers.

The 17 callers in the interpersonal contact condition briefly interacted with a beneficiary of their work. The remaining 22 callers were divided into two control conditions: the 12 callers in the letter control condition read and discussed a letter by the beneficiary but did not meet him, and the ten callers in the no exposure control condition had no interaction of any kind with the beneficiary. We included the letter control condition in order to ensure that the effects of the intervention could not be explained by the Hawthorne effect—that manager attention, rather than respectful contact with beneficiaries, was responsible for any effects that we observed (e.g., Adair, 1984; Franke & Kaul, 1978; Sundstrom, McIntyre, Halfhill, & Richards, 2000). Thus, in the letter and interpersonal contact conditions, the employees received the same amount of attention from managers and spent the same amount of time in the break room; interpersonal contact with the beneficiary was the only factor varied between the two conditions.

Procedures

Over the course of the experiment, employees in the no exposure condition went about their work as usual. Employees in the letter and interpersonal contact conditions had 10 min of indirect or direct respectful contact with a beneficiary of their work—an undergraduate student who had earned a scholarship funded in part by

their efforts. We contacted scholarship students through a university electronic mailing list, and several students responded with interest in participating in the intervention. After a series of communications, one male scholarship student agreed to serve as the beneficiary in our experiment. The experimental manipulations were carried out over the course of four days, with four sessions for the interpersonal contact condition and four sessions for the letter conditions. Callers who arrived for work during the four time slots in which the scholarship student was available and present in the office were assigned to the interpersonal contact condition. Callers who arrived for work during the four time slots in which the scholarship student was not available were randomly divided between the letter and control conditions.

For the experimental intervention, employees in the letter and interpersonal contact conditions were called to a “break room” by a manager for a 10-min session in groups ranging in size from four to eight. The manager explained, “We’ve received letters from the dean’s office written by students who have benefited from scholarships that were made possible by the alumni donations that you’ve solicited. We wanted to share these letters with you to give you a sense of the impact that your work is having on students.” The manager then distributed letters to the callers, explaining, “Here’s one of the letters from a student whose life has been improved by your work. You can take the next few minutes to read it.” The callers spent 5 min reading a one-page letter from the student beneficiary about how the scholarship had made a difference in his life.

At this point, employees in the letter and interpersonal contact conditions received different treatments. For employees in the letter condition, the manager asked them to discuss the letters amongst themselves for 5 min. For employees in the interpersonal contact condition, the manager invited the scholarship student beneficiary into the room and explained, “We’re lucky enough to have the student whose letter we read here today.” Callers asked the student a series of questions. Their questions focused on what classes he was taking, how he obtained the scholarship, and what he was planning to do after graduating from college. For both the letter and interpersonal contact conditions, after approximately 5 min, the manager ended the session and remarked to callers, “Remember this when you’re on the phone—this is someone you’re supporting.” Although callers worked independently on the phones calling alumni and spent relatively little time talking with each other, we attempted to minimize the risk of treatment diffusion problems—contagion or leakage between experimental conditions about procedures applied (Cook & Campbell, 1979; Cook & Shadish, 1994)—by asking employees to keep the conversations confidential in order to protect the scholarship student’s identity.

Measures

We used time on the phone as a direct indicator of persistence behavior, and objective job performance (the total dollar amount of donations raised) as an indirect indicator of persistence behavior. The fundraising organization collected these measures in 1-week intervals at two points in time: 2 weeks before the intervention and 1 month after the intervention. We chose these intervals because the callers were working on the same fundraising projects during both time periods, and were assigned randomly to potential alumni donors, signifying that they had equivalent opportunities to perform (Blumberg & Pringle, 1982). Our decision to collect the followup data 1 month after the intervention was also based on the premise that a 1-month delay would be sufficient for extinction to occur if the intervention was not effective. Accordingly, we obtained both pre-intervention and post-intervention measures of persistence and objective job performance. These longitudinal measures served two functions: first, as indicators that the three conditions did not differ in baseline levels of persistence or performance before the intervention, and second, as control variables to enable us to assess the effects of the intervention both within and between treatment conditions.

Persistence behavior. The callers in our sample worked approximately the same number of hours and shifts. Accordingly, we reasoned that the most persistent callers would spend more time on the phone attempting to persuade alumni to agree to make, and increase, donations. We assessed persistence behavior with a measure of the number of minutes and seconds each caller spent on the phone, which was automatically recorded in 1-week intervals 2 weeks before the intervention and 1 month after the intervention.

Objective job performance. We supplemented our persistence measure with a measure of objective job performance, assessed with data supplied by the organization indicating the total sum of donation money that each caller succeeded in securing from alumni in 1-week intervals 2 weeks before the intervention and 1 month after the intervention.

Results and discussion

Means and standard deviations for persistence and performance by condition appear in Table 1. In order to assess the effects of our intervention, we conducted both cross-sectional and longitudinal analyses.

Cross-sectional analyses

Pre-intervention. Omnibus ANOVAs revealed that the three conditions did not differ 2 weeks before the intervention in persistence, $F(2, 33) = .54$, *ns*, $\eta^2 = .03$, or in

Table 1
Experiment 1 means by intervention condition

Condition	Persistence (minutes on phone)		Objective job performance (total donation amount)	
	Pre	Post	Pre	Post
Interpersonal contact	107.55 _a (85.18)	260.73 _b (135.16)	185.94 _a (267.70)	503.22 _b (294.70)
Letter	143.29 _a (93.63)	147.05 _a (57.52)	251.67 _a (192.84)	254.18 _a (158.82)
No contact	119.73 _a (69.00)	178.93 _{ab} (58.64)	231.63 _a (126.22)	261.00 _a (181.18)

Notes. Standard deviations are in parentheses. Means with the same subscript are not significantly different at $p < .05$ in post hoc comparisons with Bonferroni corrections run separately for persistence and performance.

performance, $F(2,32) = .28$, ns , $\eta^2 = .02$. Contrast analyses showed no differences between individual conditions on the pre-intervention measures (see Table 1).

Post-intervention. Omnibus ANOVAs indicated significant differences between conditions 1 month after the intervention in persistence, $F(2,38) = 5.00$, $p = .01$, $\eta^2 = .22$, and performance, $F(2,37) = 5.13$, $p = .01$, $\eta^2 = .23$. A planned contrast analysis showed that after the intervention, callers in the interpersonal contact condition displayed higher persistence, $t(36) = 3.02$, $p < .01$, $d = 1.01$, and performance, $t(35) = 3.20$, $p < .01$, $d = 1.08$, than callers in the letter and no exposure control conditions.

Longitudinal analyses

We examined differences across the three conditions over time in persistence and performance by conducting repeated-measures ANOVAs using dummy codes of 1 for no exposure, 2 for letter, and 3 for interpersonal contact. As predicted, the analyses indicated significant interactions between time and condition on persistence, $F(2,30) = 4.74$, $p = .02$, $\eta^2 = .32$, and performance, $F(2,28) = 5.07$, $p = .01$, $\eta^2 = .36$. In order to facilitate the interpretation of these effects, we conducted several additional analyses.

A repeated-measures ANOVA comparing the interpersonal contact and letter conditions showed significant time-condition interactions on persistence, $F(1,22) = 7.64$, $p = .01$, $\eta^2 = .35$, and performance, $F(1,21) = 5.11$, $p = .04$, $\eta^2 = .24$. A repeated-measures ANOVA comparing the interpersonal contact and no exposure conditions showed significant time-condition interactions on persistence, $F(1,24) = 3.55$, $p = .07$, $\eta^2 = .15$, and performance, $F(1,22) = 5.93$, $p = .02$, $\eta^2 = .27$. Paired-samples t tests revealed that callers in the interpersonal contact condition increased significantly over time in persistence, $t(15) = 4.64$, $p < .001$, $d = 2.40$, and performance, $t(15) = 3.45$, $p < .01$, $d = 1.78$. Conversely, callers in the letter control condition did not change significantly in persistence, $t(7) = .10$, ns , $d = .08$, or performance, $t(6) = .82$, ns , $d = .67$; similarly, callers in the no exposure control

condition did not change significantly in persistence, $t(8) = 2.30$, ns , $d = 1.63$, or performance, $t(7) = -.28$, ns , $d = .21$. Thus, as displayed in Figs. 1 and 2, callers in the interpersonal contact condition increased significantly in persistence and performance as a function of the intervention, whereas those in the letter and no exposure control conditions did not. This pattern of results was virtually identical when we compared the interpersonal contact condition to the letter and no exposure control conditions combined into one group.

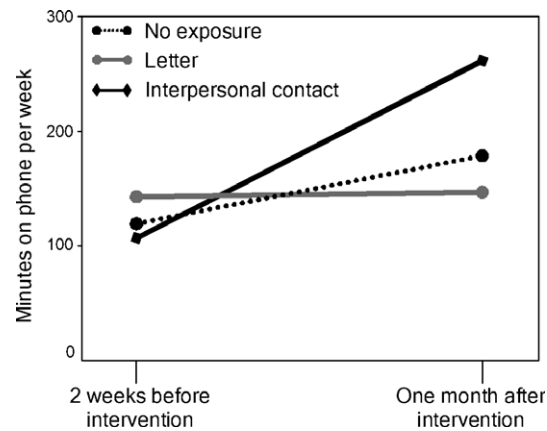


Fig. 1. Experiment 1 caller persistence pre- and post-intervention.

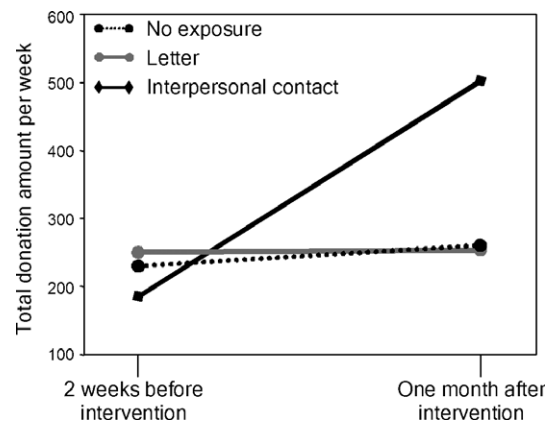


Fig. 2. Experiment 1 caller performance pre- and post-intervention.

In summary, our intervention provided callers with an opportunity to spend 10 min interacting respectfully with only one beneficiary of their work. One month later, over the course of 1 week, these callers spent significantly more time on the phone, and secured significantly more donation money, than their counterparts who read a letter by the beneficiary or had no exposure to the beneficiary. Further, the persistence and performance of the callers in the control conditions did not change, whereas callers in the intervention condition spent 2.42 times as many minutes on the phone, and secured 2.71 times as much money, as they had before the intervention. It appears that our small manipulation caused a large difference in caller motivation. Merely interacting respectfully with a beneficiary of their work enabled them to maintain their motivation, as observed in their persistence behavior and objective job performance. To ensure that the interaction in the interpersonal contact condition was respectful, after all sessions were complete, we interviewed the manager who assisted us in coordinating the intervention. We asked, “How respectful and polite were the interactions between the callers and the scholarship students?” We asked him to respond on a 1–7 scale (1 = not at all respectful; 7 = very respectful). The manager stated, “The scholarship student unquestionably receives a seven; he was extremely kind and appreciative toward the callers. The callers receive a six—most of them were amazingly respectful, and I only assigned them a six rather than a seven because there were a few callers who did not speak much.” This statement supported our assumption that the interaction in the interpersonal contact condition was respectful.

Thus, our experiment provides initial evidence in support of the effectiveness of redesigning the relational architecture of work, as implemented with an interpersonal contact with beneficiaries intervention, in enhancing persistence behavior. Can these promising results be generalized to other tasks, populations, manipulations, and measures, or are they limited by boundary conditions? Perhaps more importantly, how can they be explained? Further knowledge about generalizability, mediating mechanisms, and boundary conditions is critical to advancing our theoretical understanding of the effects of contact with beneficiaries and to developing applicable recommendations for practice. Accordingly, our next two experiments are directed at building on Experiment 1 by addressing these issues.

Experiment 2

In Experiment 2, we moved to the laboratory to gain a deeper theoretical understanding of the results of Experiment 1. First, we sought to test whether the results would generalize to a different task, sample, manipula-

tions, and measures. Second, we sought to examine the mediating psychological process underlying the effect of the intervention on motivation maintenance. In line with our previous theorizing, we hypothesize that respectful contact with beneficiaries enables employees to become more aware of the effects of their actions on beneficiaries (Hackman et al., 1975). We refer to this awareness as *perceived impact* (Grant, in press), and at least two empirical findings support this prediction. First, job design research suggests that when members of production teams interact with the clients who use their products, they are able to perceive the impact of their work on clients, which appears to motivate them to clarify their identities and improve their task strategies (Hackman, 1990; Hackman & Oldham, 1980). Second, service learning research indicates that students working in service learning projects may perceive their work as more valuable when they have contact with the beneficiaries of these projects, which provides them with opportunities to receive direct feedback about their contributions (Lester, Tomkovich, Wells, Flunker, & Kickul, 2005). Thus, we predict that respectful contact with beneficiaries increases perceived impact, which in turn increases persistence behavior.

Hypothesis 2. Perceived impact mediates the effect of respectful contact with beneficiaries on persistence behavior.

Method

The experiment investigated the effect of respectful contact with beneficiaries on persistence behavior. We informed participants that we were working with the Career Center to improve students' chances of finding jobs. Participants performed an editing task, revising job application cover letters purportedly written by another student, and we measured their persistence in terms of the objective amount of time they chose to spend on the task.

Participants and design

Thirty undergraduates (14 female, 16 male) in an introductory psychology course at a large Midwestern university participated in the experiment for 1 h of course credit. The experiment varied respectful contact with beneficiaries (interpersonal contact, control) between subjects. Participants in the interpersonal contact condition briefly conversed with the beneficiary of the task, and participants in the control condition did not.

Measures

Unless otherwise indicated, all items used a 7-point Likert-type scale with anchors of 1 = disagree strongly and 7 = agree strongly.

Persistence. Unbeknownst to participants, the experimenter recorded the amount of time, in minutes and seconds, that participants spent editing the cover letters.

Perceived impact. We developed four items to measure participants' perceptions of impact on the beneficiary: "I was having positive impact on the student," "I felt capable of benefiting the student," "I was focused on benefiting the student," and "I was trying to make the student better off" ($\alpha = .70$).

Manipulation checks. Our measures included two manipulation checks. The first manipulation check, designed to ensure that the interpersonal contact manipulation was effective, consisted of one item assessing whether participants realized that the student with whom they conversed was the same student whose cover letters they edited: "I had a chance to interact with the student who benefited from my efforts." The second manipulation check, designed to examine whether the interpersonal contact manipulation increased perceptions of task significance, was one item adapted from an existing measure of task significance (Hackman & Oldham, 1975): "The results of this task are likely to significantly affect the well-being of the student."

Procedure

We manipulated respectful contact with beneficiaries by either having a confederate beneficiary interact respectfully with participants at the beginning of the experiment or having no confederate beneficiary present. In the interpersonal contact condition, a student confederate, "Eric Sorenson," the author of the cover letters that participants would later edit, arrived outside the experiment room and approached each participant. He introduced himself and struck up a conversation, making small talk that covered topics such as the subject pool system, undergraduate courses, housing situations, hometowns, sports, and the weather. After approximately 4 min of conversation, "Eric" knocked on the door. For male participants, the experimenter opened the door and asked, "Which one of you is Eric?" For female participants, the experimenter opened the door and asked the confederate, "Are you Eric?" In all cases, the confederate replied, "I'm Eric. Here you go," handed a form to the experimenter, and asked, "Are we all set?" The experimenter replied, "Yep, that's everything we need. We'll email you," and the confederate left. In the control condition, participants never saw the confederate.

Upon entering the experiment room, all participants read the following instructions: "Past research has shown that students are very effective in helping their peers improve their cover letters in the job search, and we are studying this process. We have been working with the career center in the area, and several students who

are currently searching for jobs have volunteered to submit their cover letters for improvement. You will have up to 45 min to edit two cover letters that a student has written in the job application process. You will not have a break during this study. Please let the experimenter know when you are finished." The cover letters were designed to be typical of an average student; Eric was applying for office assistant and lifeguard positions. In order to provide additional evidence that Eric was a real person, both letters were addressed to real managers at well-known organizations in the area, and Eric's email address appeared at the bottom of both letters. Further, the experimenter reminded participants that in order to protect the student's identity, they should keep their work confidential even after the experiment was over. Participants were asked to make as many specific changes as necessary, focusing on rewording, restructuring, revising, and reorganizing in order to benefit the student.

The experimenter handed participants a Career Center Information Form, designed to resemble official Career Center material, which Eric had purportedly completed. The form presented basic information about Eric, including his name, year in school, birth date, email address, a photocopied personal photograph, and a brief handwritten paragraph about why he was searching for jobs. The paragraph explained that he was having a hard time paying for college and making rent payments, and the job would help him improve his financial situation and stay in school. After reading the form, participants began editing, and at the end of 45 min, or after they announced task completion, they completed a questionnaire containing the self-report measures.

Results

Manipulation checks

Results of ANOVAs indicated that our manipulation was effective. Participants in the interpersonal contact condition reported significantly higher levels of contact with Eric ($M = 4.93$, $SD = 2.40$) than participants in the control condition ($M = 2.13$, $SD = 1.46$), $F(1, 29) = 14.88$, $p < .01$, $\eta^2 = .35$. Participants in the interpersonal contact condition also reported significantly higher levels of task significance ($M = 4.73$, $SD = .96$) than participants in the control condition ($M = 3.47$, $SD = 1.64$), $F(1, 29) = 6.65$, $p = .02$, $\eta^2 = .19$. We thus turned to the main and mediating effects of the interpersonal contact manipulation.

Effects on persistence behavior and the mediating role of perceived impact

Results of an ANOVA indicated that participants in the interpersonal contact condition spent significantly more time on the task ($M = 31.39$ min, $SD = 10.31$) than participants in the control condition ($M = 23.85$, $SD = 7.68$), $F(1, 29) = 5.16$, $p = .03$, $\eta^2 = .16$. Thus, in

support of Hypothesis 1, the interpersonal contact manipulation was effective in increasing persistence behavior. To examine Hypothesis 2, that perceived impact would mediate this effect, we followed Baron and Kenny's (1986) linear regression procedures for testing mediation. First, the prior ANOVA revealed that the interpersonal contact manipulation increased persistence. Second, the interpersonal contact manipulation predicted perceived impact, $\beta = .43$, $p = .02$, $r^2 = .18$. Third, while controlling for the interpersonal contact manipulation, perceived impact significantly predicted persistence, $\beta = .53$, $p < .01$. The final step was to determine whether the effect of the interpersonal contact manipulation on persistence decreased after controlling for perceived impact. We consulted the same simultaneous regression of persistence on interpersonal contact and perceived impact, and found that interpersonal contact no longer significantly predicted persistence ($\beta = .17$, *ns*). A Sobel test using the critical values recommended by MacKinnon, Lockwood, Hoffman, West, and Sheets (2002) revealed that the decrease in the effect of interpersonal contact after adding perceived impact was statistically significant, $z' = 1.96$, $p < .01$. The variance explained in persistence also increased significantly from $r^2 = .16$ to $r^2 = .38$, $F(1,27) = 9.97$, $p < .01$. Thus, this experiment provided support for Hypothesis 2: perceived impact mediated the effect of respectful contact with beneficiaries on persistence.

Discussion

By demonstrating that respectful contact with beneficiaries increases persistence behavior through its effects on perceived impact, these results take a step toward supporting and illuminating the effects observed in Experiment 1. However, they also raise at least three important unanswered questions. First, other than perceived impact, are there additional mechanisms that may explain the effects of respectful contact with beneficiaries on persistence? Second, what role does the nature of the task play? Job design research suggests that contact with beneficiaries may be more motivating under some task conditions than others (Hackman & Oldham, 1976, 1980), but our prior experiments did not allow us to examine how variance in task characteristics affected persistence, given that all callers worked on the same fundraising tasks in Experiment 1 and all participants edited the same cover letters in Experiment 2. Third, what role does the nature of the interaction with beneficiaries play? In both experiments, participants had respectful conversations with, and received positive feedback from, beneficiaries. Emotional labor and customer service research indicates that employees enjoy friendly, appreciative interactions with beneficiaries (Gutek, Bhappu, Liao-Troth, & Cherry, 1999), and game theory research indicates that even a mere smile from beneficia-

ries can lead individuals to trust and cooperate with them (Scharlemann, Eckel, Kacelnik, & Wilson, 2001). Thus, it is important to examine whether the nature of the communication plays a role in accounting for the effects of respectful contact with beneficiaries on persistence. We designed Experiment 3 to examine these questions.

Experiment 3

Building on the results of Experiments 1 and 2, we sought to examine how variance in the nature of the task and the nature of the communication with the beneficiary would affect persistence behavior. We also examined an additional mechanism that may mediate the effects observed in the previous two experiments.

Nature of the task: The moderating role of task significance

The objective significance of the task, which was held constant in Experiments 1 and 2, is likely to play an important role in the effects of contact with beneficiaries on motivation. As discussed previously, task significance is the degree to which work is structured to provide employees with opportunities to substantially affect the welfare of other people (Hackman & Oldham, 1976). Task significance was quite high in Experiments 1 and 2; participants were improving students' lives by soliciting alumni donations and editing cover letters. It is possible that the motivational effects of contact with beneficiaries may only occur under such conditions of high task significance. Accordingly, in this experiment, we aimed to decouple the effects of contact with beneficiaries and task significance on motivation.

We predicted that task significance moderates the effect of contact with beneficiaries on persistence. When individuals are working on significant, high-impact tasks, they are aware that their efforts have the potential to benefit or harm other people. Accordingly, they are likely to invest additional time and energy in their efforts in order to benefit these people. The social psychological literature on helping behavior provides corroborating evidence for this assertion: when people feel that their actions will substantially affect the welfare of others, they are more willing to provide help (Latané & Darley, 1970). When employees are working on significant, high-impact tasks, contact with beneficiaries enables them to see firsthand how they are valued by the beneficiaries (Rosen, Mickler, & Collins, 1987), and to have greater exposure to and awareness of beneficiaries' needs (Batson, 1987). Alternatively, when tasks do not have a significant impact on beneficiaries, contact with beneficiaries is unlikely to convey information to employees about how their work is impactful, valued, or needed.

Hypothesis 3. Task significance moderates the effect of contact with beneficiaries on persistence behavior. When task significance is high, contact significantly increases persistence behavior; when task significance is low, contact does not increase persistence behavior.

Nature of communication with beneficiaries and additional mediating mechanisms

In addition to examining how task significance modifies the effect of contact with beneficiaries on persistence, we also sought to vary the nature of the communication and examine a second mediating psychological process underlying the predicted effects. Although positive communication with beneficiaries likely enhances persistence, as discussed previously, we predicted that mere contact with the beneficiary—without any verbal interaction or respectful or disrespectful cues—would still produce the effects predicted in Hypothesis 1 and observed in Experiments 1 and 2. We based this prediction on the premise that contact with beneficiaries serves a second motivational function. In addition to providing feedback that enables employees to perceive their impact on beneficiaries, we propose that contact enables employees to identify with beneficiaries, and thereby experience affective commitment to beneficiaries—a sense of emotional attachment to the people affected by their efforts (Grant, in press). In support of this prediction, social psychological research shows that mere contact can enhance the degree to which people like others (Bornstein, 1989; Saegert, Swap, & Zajonc, 1973; Schoenrade, Batson, Brandt, & Loud, 1986) and experience concern for the welfare of others (Batson, 1987, 1991). Thus, mere contact with beneficiaries can enable employees to feel affectively committed to these beneficiaries. As a result, employees may perceive acting to improve beneficiaries' lives as more congruent with their core values (Batson et al., 1997; Cialdini et al., 1997), and may persist in their efforts in order to have a positive impact on beneficiaries (Batson, Turk, Shaw, & Klein, 1995; McNeely & Meglino, 1994). As such, we predict that mere contact with beneficiaries increases persistence behavior, mediated by affective commitment to beneficiaries.

Hypothesis 4. Mere contact with beneficiaries increases persistence behavior.

Hypothesis 5. Affective commitment to beneficiaries mediates the effect of mere contact with beneficiaries on persistence behavior.

Method

The experiment investigated the effects of mere contact with beneficiaries and task significance on

persistence. We used the same task instructions and persistence measures as in Experiment 2.

Participants and design

One hundred twenty-two undergraduates (74 female, 48 male) in an introductory psychology course at a large Midwestern university participated in the experiment for one hour of course credit. The experiment utilized a 2 (Contact with beneficiaries: mere contact, no contact) \times 2 (Task significance: high, low) between-subjects factorial design.

Mere contact with beneficiaries manipulation. We derived our mere contact with beneficiaries manipulation from mere exposure research (Saegert et al., 1973) by either having a confederate beneficiary present at the beginning of the experiment (mere contact) or having no confederate beneficiary present (no contact). The purpose of the manipulation was to examine whether mere contact with a beneficiary, independent of feedback from the beneficiary, would affect persistence behavior. Although the feedback that callers in the interpersonal contact condition in Experiment 1 received was about the impact of the organization's work, not their own work, and the conversation participants had with the beneficiary in Experiment 2 was not related to the task, it is still possible that positive feedback served to enhance motivation in both experiments. Accordingly, we designed this mere contact manipulation to eliminate the communication component of contact with the beneficiaries to avoid overtly conveying indications of respect or disrespect.

Task significance manipulation. We manipulated task significance by altering the framing of the impact that editing the cover letters would have on the applicant, varying the paragraph on Eric's Career Center Information Form. In the high task significance condition, as in Experiment 2, Eric had written that he was having a hard time paying for college and making rent payments, and the job would help him improve his financial situation and stay in school. In the low task significance condition, Eric had written that he was interested in finding a job so that he could obtain some extra spending money.

Measures

Unless otherwise indicated, all items used a 7-point Likert-type scale with anchors of 1 = disagree strongly and 7 = agree strongly.

Persistence. The experimenter surreptitiously recorded the amount of time, in minutes and seconds, that participants spent editing the cover letters.

Affective commitment to beneficiaries. We developed three items to measure affective commitment to beneficiaries,

including “I cared deeply about helping the person who benefited from my work in this task” ($\alpha = .77$).

Manipulation checks. To ensure that participants believed that Eric was a real person, at the end of the questionnaire, participants were asked open-ended questions: “What information did you read in the beginning of the study about this task? Who did it benefit? How did it help these people?” The responses were then rated by two coders blind to the experimental conditions.

Procedures

In the mere contact condition, a student confederate waited at the door with the participants. In order to eliminate any cues that might predispose participants to care about him, the confederate did not speak to participants and did not smile, but simply knocked on the door. The experimenter opened the door and followed the same procedures as in Experiment 2, asking for “Eric,” collecting forms from him, and dismissing him to leave. In the no contact condition, participants never saw the confederate. All participants read the same instructions as in Experiment 2, and were informed that they would be stopped after 35 min if they were not finished. The experimenter then handed them the Career Center Information Form, which contained the task significance manipulation. After reading the form, participants began editing, and at the end of 35 min, or after they announced task completion, they completed a questionnaire containing the self-report measures.

Results and discussion

Means and standard deviations by condition appear in Table 2. Three participants who failed to understand the task due to language barriers were excluded from analyses.

Manipulation checks

Based on participants’ responses to the open-ended question about whom the task benefited, two coders

rated the extent to which participants believed that Eric Sorenson was a real person using a five-point scale (1 = participant believes Eric does not exist; 5 = participant is completely convinced that Eric exists). Because the raters demonstrated substantial agreement ($r = .89$), we averaged their ratings, and the mean was quite high for the entire sample ($M = 4.78$, $SD = .51$). An omnibus ANOVA showed that our manipulations did not influence whether participants believed Eric was a real person, $F(1, 110) = .91$, ns , $\eta^2 < .01$. Individual contrasts also showed no significant differences between any of the pairs of conditions. Coding of open-ended responses revealed that only three of the 119 participants questioned his existence, and these participants were excluded from analyses.

Effects of contact and task significance on persistence

Results of ANOVAs showed a significant Contact \times Task Significance interaction on the amount of time spent on the task, $F(1, 116) = 4.19$, $p = .04$, $\eta^2 = .03$ (see Fig. 3). No other effects were significant. A planned contrast analysis showed that participants in the mere contact, high task significance condition spent more time on the task than those in the other three groups, $t(113) = 2.60$, $p = .01$, $d = .49$. This finding supported Hypothesis 3—task significance moderated the effect of contact with beneficiaries on persistence—but did not support Hypothesis 4, as contact did not independently increase persistence. The absence of a main effect of contact is likely a function of the subtlety of the contact manipulation; indeed, in Experiment 2, the stronger contact manipulation produced a significant effect on persistence.

The mediating role of affective commitment to beneficiaries

In order to determine whether affective commitment to beneficiaries mediated the interactive effect of contact and task significance on persistence, we followed Baron and Kenny’s (1986) linear regression procedures

Table 2
Experiment 3 means by contact with beneficiaries and task significance conditions

Condition	Persistence (minutes)	Affective commitment
Low task significance, No contact ($n = 32$)	27.04 _a (7.59)	4.20 _a (1.13)
Low task significance, Mere contact ($n = 29$)	26.73 _a (5.49)	4.99 _b (1.13)
High task significance, No contact ($n = 32$)	25.76 _a (7.46)	5.05 _b (.93)
High task significance, Mere contact ($n = 26$)	30.49 _b (5.13)	5.23 _b (.85)

Notes. Standard deviations are in parentheses. Means with the same subscript are not significantly different at $p < .05$ in post hoc comparisons with Bonferroni corrections.

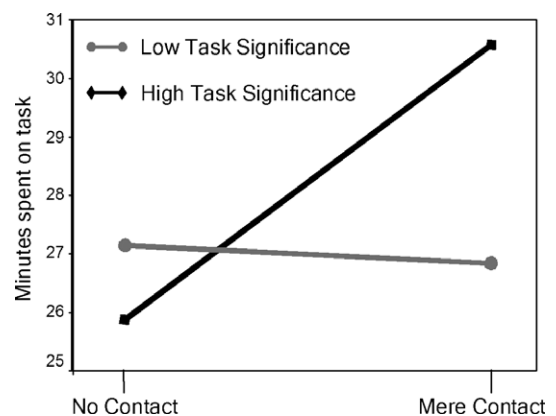


Fig. 3. Experiment 3 interaction effect of contact with beneficiaries and task significance on persistence.

for mediated moderation. First, the prior ANOVA revealed that the interaction between contact and task significance increased persistence. Second, the interaction variable predicted affective commitment, $\beta = .19$, $p < .04$, $r^2 = .04$. Third, while controlling for the interaction variable, affective commitment significantly predicted persistence, $\beta = .25$, $p < .01$. The final step was to determine whether the effect of the interaction variable on persistence decreased after controlling for affective commitment. We consulted the same simultaneous regression of persistence on the interaction variable and affective commitment, and found that the interaction variable no longer significantly predicted persistence, $\beta = .17$. A Sobel test (see MacKinnon et al., 2002) revealed that the decrease in the effect of the interaction after adding affective commitment was statistically significant, $z' = 1.67$, $p < .01$. The variance explained also increased significantly from $r^2 = .05$ to $r^2 = .11$, $F(1, 110) = 7.62$, $p = .01$. Thus, our analyses generally supported Hypothesis 5: affective commitment mediated the effect of contact and task significance on persistence.

These results support the prediction that contact with beneficiaries plays a causal role in increasing persistence, provided that the work is high in task significance. Participants who briefly saw the beneficiary and received high task significance cues invested more time in the task than individuals in the other three conditions. This suggests that task significance moderates the effect of contact with beneficiaries on persistence, and that mere contact with beneficiaries, independent of the content of the communication or respectful nature of the contact, can play a role in increasing persistence. Our findings also support the hypothesis that affective commitment to beneficiaries is a second mediating mechanism underlying this effect. Thus, work that is relationally designed to provide opportunities to interact with and have a significant impact on beneficiaries appears to enhance persistence by leading employees to feel affectively committed to beneficiaries, as well as by enabling them to perceive the impact of their work on beneficiaries.

General discussion

Together, the three experiments support our core premise that objective modifications to the relational design of work can enhance motivation maintenance, as providing employees with opportunities for contact with beneficiaries increased their persistence behavior. The three experiments complement each other in several important ways. Experiment 1 provides evidence of the potency of respectful contact with beneficiaries in increasing persistence behavior in the field. Callers in a fundraising organization spent 10 min reading about and respectfully interacting with one beneficiary of their

work. One month later, over the course of 1 week, they displayed higher levels of persistence behavior and objective job performance than callers in two control groups who read a letter by the beneficiary or had no exposure to him. Further, their persistence and performance increased significantly as a function of the intervention, whereas callers in the two control groups did not display any changes on these measures. Experiments 2 and 3 provide constructive replications of these effects using a different task, sample, manipulations, and measures, and offer initial evidence about mediating mechanisms and boundary conditions. Perceived impact and affective commitment to beneficiaries mediated the effects of contact with beneficiaries on persistence, and task significance moderated the effects of contact with beneficiaries on persistence.

Theoretical contributions

With these findings, our results advance the literatures on job design and work motivation. In general, our results indicate that the objective relational structures of work, as well as the task, knowledge, and physical structures, can be important influences on employee motivation, as observed in the persistence behavior of employees. As such, in line with early job design theory (Hackman & Lawler, 1971; Lawler, Hackman, & Kaufman, 1973; Trist & Bamforth, 1951; Turner & Lawrence, 1965), and more recent trends in theory (Grant, in press; Morgeson & Humphrey, in press; Wageman, 1995), and practice (Cascio, 1995, 2003; Parker et al., 2001), our research takes a conceptual and empirical step toward redirecting research on job design and motivation to the relational realms of work. Specifically, our research offers six distinctive contributions to research on job design and work motivation.

First, to the best of our knowledge, these are the first studies that experimentally test the assumption long held in job design research that contact with beneficiaries can enhance employee motivation. The experimental designs of our studies, using random assignment and multiple control conditions, facilitate inferences about the causal effects of contact with beneficiaries on persistence behavior. Second, our results advance current understandings of the motivational mechanisms of job design. We provide empirical support for the assumption made in job design research that perceived impact mediates the effects of contact with beneficiaries on persistence behavior. We also provide evidence that an additional psychological mechanism—*affective commitment to beneficiaries*—mediates the effects of contact with beneficiaries on persistence behavior. Third, our results suggest that the motivational effects of contact with beneficiaries are not simply a function of receiving appreciative feedback from the beneficiaries of one's personal efforts. Our experiments show that contact with

beneficiaries who provide feedback about the impact of the organization's work (Experiment 1), or no feedback at all (Experiment 3), can enhance persistence behavior. Fourth, our results extend existing knowledge about the interactive effects of multiple job characteristics on motivation, an issue overlooked in most job design research (Dodd & Ganster, 1996). Our research accentuates a novel pattern of interactions between job characteristics, suggesting that contact with beneficiaries and task significance interact to affect persistence behavior.

Fifth, our research answers recent calls for motivation research to venture beyond individualistic, rationalistic perspectives toward more relational, meaning-centered perspectives (Kahn, 1990; Michaelson, 2005; Shamir, 1991; Thompson & Bunderson, 2003; Wrzesniewski, Dutton, & Debebe, 2003). Rather than focusing on expectancies, instrumentalities, and goals, our research was guided by the premise that employees are motivated to form meaningful interpersonal relationships. Finally, our research has methodological implications for work redesign research. Traditional interventions have focused on making enduring changes to employees' jobs and tasks (e.g., Griffin, 1983), which has presented access and evaluation challenges for organizational researchers (e.g., Frank & Hackman, 1975; Hackman, 1985; Locke, Sirota, & Wolfson, 1976). Alternatively, we redesigned jobs to provide temporary, brief contact with beneficiaries, and the motivational effects across experiments were especially powerful given the minimal nature of the manipulations (see Prentice & Miller, 1992). Accordingly, non-intrusive, brief interventions similar to those utilized in our field experiment may prove useful in enabling organizational researchers to conduct and evaluate more work redesign interventions in the field.

Limitations and directions for future research

It is important to qualify the contributions of these experiments in light of their limitations. First, in Experiment 1, the small sample size raises questions about whether randomization ensured equivalence across conditions. Although this concern is mitigated in part by the equivalent levels of persistence and performance observed in the pre-intervention measures, additional studies with larger samples are necessary to determine that the randomization procedures used in this study were effective and that the effects are generalizable to other occupational and organizational settings. Second, because the nature of the contact with beneficiaries was respectful in Experiments 1 and 2 and neutral in Experiment 3, we are unable to address the potential effects of disrespectful interactions with beneficiaries. Although our experiments are circumscribed to jobs in which interactions with beneficiaries are respectful, the large bodies of organizational research discussed previously indicate that interactions with beneficiaries are often

difficult, stressful, and frustrating in a wide variety of jobs. Thus, our research may not accurately capture the vicissitudes of contact with beneficiaries that occur across organizational and occupational contexts, and cannot speak to the effects of disrespectful interactions with beneficiaries on employee motivation. However, in jobs in which most beneficiaries tend to be appreciative and respectful, contact is likely to enhance employee persistence and performance. Additionally, because we directly and carefully controlled the nature of the contact with beneficiaries across the three experiments, we are unable to speak to the effects of uncontrolled, naturalistic contact with beneficiaries. A lack of controlled contact may involve significant ethical ramifications and potential psychological harm to employees and/or beneficiaries.

Third, it is not yet clear whether the effects of contact with beneficiaries last beyond a month in the case of Experiment 1, or beyond a single task experience in the case of Experiments 2 and 3, and whether the effects apply to a broad range of jobs and tasks, especially those in which interactions with beneficiaries are typically unfavorable (e.g., Molinsky & Margolis, 2005). Further, we were unable to determine whether the beneficiary or the treatment was responsible for the effects observed in Experiment 1, and because all three experiments used only one beneficiary at one point in time, we are unable to address the effects of multiple interactions and multiple beneficiaries on employee motivation. We recommend that researchers conduct additional field experiments, laboratory experiments, and situated experiments (see Greenberg & Tomlinson, 2004) to examine these issues. Finally, our studies focused narrowly on persistence as a behavioral indicator of motivation, and our results may not generalize to other behavioral indicators of motivation, such as effort, speed, efficiency, planning, and task strategies (e.g., Locke, 1991; Locke & Latham, 2002).

Our experiments also point to a series of important directions for future research. First, if the beneficiary is a member of an outgroup, employees may be less motivated to persist in helping the beneficiary (Stürmer, Snyder, & Omoto, 2005; cf. Batson, Chang, Orr, & Rowland, 2002). Second, the motivational impact of contact with beneficiaries may be stronger for newcomers than veterans, given that individuals new to their jobs are generally more attentive and reactive to relational cues, and may have more flexible views of their jobs (e.g., Katz, 1978; Schein, 1978; Stewart, 1982; Wanous, 1992). Third, it is not yet clear whether and how different modes and mediums of contact with beneficiaries, such as electronic messages or telephone conversations, may affect employee motivation. Fourth, the role of contact with single versus multiple beneficiaries is of interest. It may be that our findings in Experiment 1 are in part a result of contact with a single

student beneficiary enabling callers to care about the entire group of students earning scholarships as a result of their efforts (see Batson et al., 2002). Finally, the mediating mechanisms underlying our results merit further attention. In addition to enabling employees to perceive on their impact on and feel affectively committed to beneficiaries, it is possible that contact promotes persistence by changing the character of motivation from self-focused to other-focused (e.g., Apter, 1984), temporarily increasing the accessibility of other-focused motivation relative to self-focused motivation (e.g., Lee, Aaker, & Gardner, 2000), or increasing efficacy (e.g., Bandura, 1977, 1997) by enhancing the degree to which individuals feel capable of benefiting others. Future research will be critical in informing our understanding of these important issues.

Conclusion

In conclusion, our experiments suggest that respectful contact with beneficiaries is a tractable, actionable tool for enhancing motivation without changing the properties of the assigned tasks that comprise work. Because beneficiaries exist in all jobs, managers have the opportunity to enhance employee motivation through the structuring of respectful interactions and relationships with beneficiaries across a variety of organizational and occupational settings. Consider the back room accountant who never meets the clients who benefit from her work. Merely introducing her to these clients may allow her to perceive her impact on them and feel affectively committed to them, and thereby enable her to maintain her motivation. Contact with beneficiaries thus appears to be a promising catalyst in the art of motivation maintenance.

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