

# University of Nebraska at Omaha DigitalCommons@UNO

**Psychology Faculty Publications** 

Department of Psychology

5-2012

# Shouldering a silent burden: The toll of dirty tasks

Benjamin E. Baran Northern Kentucky University

Steven G. Rogelberg University of North Carolina at Charlotte

erika Carello Lopina University of North Carolina at Charlotte

Joseph A. Allen University of Nebraska Omaha, josephallen@unomaha.edu

Christiane Spitzmüller University of Houston

See next page for additional authors

Follow this and additional works at: https://digitalcommons.unomaha.edu/psychfacpub



Part of the Psychology Commons

# Recommended Citation

Baran, Benjamin E.; Rogelberg, Steven G.; Lopina, erika Carello; Allen, Joseph A.; Spitzmüller, Christiane; and Bergman, Mindy, "Shouldering a silent burden: The toll of dirty tasks" (2012). Psychology Faculty Publications. 101. https://digitalcommons.unomaha.edu/psychfacpub/101

This Article is brought to you for free and open access by the Department of Psychology at DigitalCommons@UNO. It has been accepted for inclusion in Psychology Faculty Publications by an authorized administrator of DigitalCommons@UNO. For more information, please contact unodigitalcommons@unomaha.edu.



Authors Benjamin E. Baran, Steven G. Rogelberg, erika Carello Lopina, Joseph A. Allen, Christiane Spitzmüller, and Mindy Bergman

# Shouldering a silent burden: The toll of dirty tasks

By: Benjamin E Baran, Steven G Rogelberg, Erika Carello Lopina, Joseph A Allen, Christiane Spitzmüller and Mindy Bergman

**Abstract:** Dirty work involves tasks that are stigmatized owing to characteristics that the public finds disgusting, degrading, or objectionable. Conservation of resources theory suggests such experiences should induce strain and decreased work satisfaction; social identity theory suggests such work should lead to strong psychological investment in the work, among other outcomes. Integrating these two perspectives, this study hypothesizes and presents quantitative evidence from 499 animal-shelter workers, demonstrating how dirty-work engagement relates to higher levels of strain, job involvement, and reluctance to discuss work while negatively influencing work satisfaction. Additionally, this study takes a unique perspective on dirty work by focusing on dirty tasks within a dirty-work occupation. The data suggest meaningful differences between the outcomes of dirty-task frequency and dirty-task psychological salience, providing additional insight into the complexity of stigmatized occupations and ways in which future research and theory benefit as a result.

**Keywords:** animal euthanasia, animal shelters, burnout, coping, dirty tasks, dirty work, identity, job involvement, management, psychology, social identity, strain, stress

#### Introduction

People employed in a vast array of occupations engage in 'dirty work'. These workers – morticians, telemarketers, sanitation workers, personal injury attorneys, exotic dancers, and many others – do work that society perceives as 'disgusting' or 'degrading' (Hughes, 1962) or objectionable (e.g. Ashforth et al., 2007). Some dirty-work occupations are of relatively low prestige (e.g. correctional officers) while others are of relatively high prestige (e.g. firefighters) (Ashforth et al., 2007). Uniting these occupations at the theoretical level is their physical, social, or moral taint (Ashforth et al., 2007) and associated stigmatization by the public (Ashforth and Kreiner, 1999). As outlined by Ashforth and Kreiner (1999), physical taint arises from contact with 'dirty' subjects (e.g. death, garbage, excrement, etc.) or from work performed in highly dangerous or harmful conditions, social taint arises from contact with stigmatized populations (e.g. prisoners, psychiatric patients, the poor, etc.) or from work that places the worker in a highly servile relationship with others, and moral taint arises from performing work of a morally dubious nature or work that employs morally questionable tactics (e.g. debt collection, issuing bail bonds). Given the stigma associated with tainted occupations, engaging in dirty work is a complex, identity-threatening circumstance with potentially harmful influences on employee well-being yet multifaceted implications for job attitudes (Kreiner et al., 2006).

Most dirty-work research has taken an occupational perspective, focusing on theoretical advancement of issues related to stigma and stigmatization at work (e.g. Ashforth and Kreiner, 1999; Paetzold et al., 2008) or on the qualitative experience of dirty work and strategies employed by those who conduct dirty work (e.g. Ashforth et al., 2007; Bolton, 2005; Dick, 2005; Guerrier and Adib, 2003). A prevalent theoretical

theme underpinning much of this research is the relationship between engaging in dirty work and one's occupational identity (e.g. Ashforth and Kreiner, 1999; Dick, 2005; Kidder, 2006; Kreiner et al., 2006; Meisenbach, 2008). As Ashforth et al. (2007) suggested, people who engage in dirty work become aware of the stigma associated with what they do when even a moderately sized minority of the public views their work as tainted. This perception of stigma results in an internal conflict within dirty-work employees, such that they engage in a variety of identity-enhancing techniques.

# From dirty occupations to dirty tasks

In this study, we examine dirty work from a less-studied but theoretically intriguing perspective. Instead of taking an occupational perspective to dirty work, we take a dirty task perspective. Namely, jobs are composed of many tasks. Depending on the occupation, some of the tasks comprising it may be dirty while other tasks carry no such stigma (Kreiner et al., 2006). Depending on the salience of the task in question, a seemingly non-dirty-work job perhaps can take on the characteristics of a dirty job and vice versa.

For example, consider the job of a management consultant. This would generally not be considered dirty work in that no apparent stigma exists. If, however, the management consultant's primary job task is to assist organizations in terminating workers' employment (a task with considerable social and moral taint), the job perhaps takes on characteristics of dirty work and may, therefore, be subject to stigmatization.

### Theoretical perspectives

In this study, we pursue two distinct research paths related to dirty tasks. In both paths, we focus on 'central' dirty tasks, or those tasks that have well-documented histories of stigma relative to other tasks in the job. In the first research path, we take a comparative perspective. We compare employees with a central dirty task to employees without a central dirty task – but all within the same general occupation type – and examine differences in occupational strain and attitudes as indicated by reluctance to discuss work with outsiders, work satisfaction, and job involvement. Subsequent to these between-groups comparisons, we take a closer, within-group look at workers who conduct the central dirty task. In particular, we explore the relationships of dirty-task frequency and dirty-task psychological salience with workers' perceptions and well-being. Below, we discuss the complexity of dirty-work and dirty-task involvement while describing the primary theoretical perspectives that drive our study: social identity theory and conservation of resources theory.

# Social identity theory

Social identity stems from an awareness of group membership (Hogg et al., 1995; Tajfel, 1982), of which one's work organization plays a major role (Ashforth and Mael, 1989). Social identity theory describes why this occurs, suggesting that one's membership in different collectives (e.g. groups, teams, organizations, etc.) contributes to one's sense of self because such membership causes group members to associate emotional and intrinsic value to their belonging in the collective (e.g. Ashforth et al., 2008). Thus, people draw upon their occupational identity (who I am at work, what I do) as part of their overall social identity (who I am). Involvement in a central dirty task likely has an influence on how employees form perceptions about who they are at work because such involvement demarcates the boundaries of group membership.

That is, conducting a central dirty task differentiates groups of employees from other groups of employees who do *not* conduct the task. Being a member of a specific group likely influences one's self-perception at work through a process akin to the model suggested by Ashforth et al. (2008). They argue that

employees go through identification episodes, which involve an ongoing process of constructing an identity narrative, enacting an identity based upon that narrative, and interpreting how that identity informs and shapes their identity narratives. For those workers involved in a central dirty task, the process of identifying oneself as part of a group of people who also engage in the central dirty task likely follows a similar path.

Namely, these workers, upon engaging in a central dirty task, likely go through processes related to sensemaking (Ashforth et al., 2008), which is inherently rooted in identity construction and may or may not necessarily be an active cognitive process (Weick, 1995). Therefore, workers who engage in a central dirty task likely – in either an active or passive psychological manner – question how their work relates to their occupational identities, interpret their experiences based upon communication with coworkers, and thereby reconstruct their sense of occupational identity, which then becomes reconciled with an overall social identity (Ashforth et al., 2008). As such, central dirty-task involvement is likely to influence how employees' perceptions of themselves at work interact with their overall social identity.

Given that 'what I do' for workers who conduct a central dirty task is a stigmatized activity, these workers face a complex situation regarding identity. They must continually negotiate their overall social identities in juxtaposition with an occupational identity fraught with stigma. Kreiner et al. (2006) highlight this conflict by juxtaposing social identity theory with system justification theory. System justification theory (e.g. Jost and Banaji, 1994) suggests that people evaluate their identities in light of how they think society at large views them and what they do. Therefore, the overall social identity for an employee who conducts dirty work necessarily includes 'how society regards who I am at work' in addition to 'who I am at work.' In short, these workers have identities based both upon their occupational experiences and their experiences outside of work as members of society. As a result, they face the ongoing chore of identity management as a member of a distinct group (those who conduct dirty work) whose chief differentiating characteristic is an activity that they themselves often perceive as dirty through the lens of their role as members of a larger society.

# Conservation of resources theory

Conservation of resources theory (Hobfoll, 1989; Hobfoll and Freedy, 1993) speaks to how conducting a central dirty task may influence outcomes concerning workers' work satisfaction and well-being. Conservation of resources theory argues that strain and lower well-being stems from the actual loss of or perceived threat of losing resources (Hobfoll, 2001). In an occupational context, then, strain emanates from experiences that threaten people's ability to maintain or develop available resources that can assist them in meeting the challenges of their jobs. Specifically, conservation of resources theory suggests that people have limited physical and psychological resources to deal with work-related activities and demands (Hobfoll, 2001). When those resources are 'used up,' the employee is likely to perceive more work events and working conditions as stressors and subsequently experience higher levels of psychological strain.

As described above from the perspective of social identity theory, those who conduct dirty work face considerable demands owing to their roles as members of a group defined by its stigmatized activities. Such demands likely require those who conduct dirty work to expend substantial cognitive effort as they transition among roles and preserve their own sense of self, especially in light of the need to maintain a positive sense of self (e.g. Sedikides and Strube, 1997). In meeting these cognitive demands, workers are drained of some of their cognitive resources; even anticipating needing to meet these cognitive demands taxes key resources by acting as a threatened loss of a resource (Hobfoll, 1989).

Therefore, conservation of resources theory suggests that involvement with a central dirty-task should result in low work satisfaction and high strain. These notions are consistent with extant research showing that animal-shelter workers who conduct euthanasia experience guilt (Frommer and Arluke, 1999) and stress (Reeve et al., 2005), are more likely to quit their jobs (Rogelberg et al., 2007), and often view euthanasia as a difficult part of their jobs requiring specific coping strategies (Baran et al., 2009).

# **Hypotheses**

Based upon the theoretical frameworks of social identity and conservation of resources outlined above, we sought to examine two related streams of inquiry. First, we examine the outcomes of dirty-task engagement by comparing those who perform dirty tasks with those who do not. We then focus solely on those with dirty tasks to provide greater insight into potential within-group differences as they relate to key outcomes.

Between-groups investigation of those with and without dirty tasks

Strain. Conservation of resources theory suggests effects on well-being beyond attitudinal effects of dirty-work tasks and their depletion of cognitive resources. Specifically, such cognitive, identity-negotiating labor likely taxes the internal resources available to those who conduct dirty work. Workers with a central dirty task, owing to the actual or threatened loss of resources posed by their cognitive efforts to maintain their senses of self, will experience more strain than those who do not conduct central dirty tasks and experience the related cognitive demands. In addition to the stigma of dirty work, in many types of dirty work the task itself may function as a stressor. Taken together, those who conduct dirty tasks will 'use up' considerable cognitive resources by going through the somewhat conflicting processes of identity management described above. Therefore, we suggest that workers who conduct a central dirty task will report higher levels of strain than those who do not:

Hypothesis 1: Dirty-task involvement positively relates with key indicators of employee strain.

Support seeking. Conservation of resources theory also proposes that a variety of coping behaviors could aid in the maintenance or rebuilding of cognitive resources. Research suggests that seeking support from others is a key way of coping with life stressors (e.g. Cohen and Wills, 1985). As such, employees' conversations, interactions, and resulting relationships with people both within and outside of work are distinct resources for coping with occupational stressors. Likewise, seeking support from others is an essential element in building and maintaining valuable social resources (Hobfoll, 1989), which are naturally important in dealing with difficult and challenging work.

Seeking social support, however, may be much more complicated among those who conduct dirty work than among those who do not conduct dirty work (Ashforth et al., 2007). This particularly applies to those whom we term 'outsiders,' or those who are not members of the workers' occupation or family. The complicated nature of social support in this situation is owed to the fact that stigma may emanate from association with the very same people (e.g. friends outside of work) from whom someone who conducts dirty work may seek social support (Kulik et al., 2008).

Qualitative evidence from Ashforth et al. (2007) suggests that those who conduct dirty work engage in social buffering tactics, used 'to insulate dirty workers somewhat from the wider public with its stigmatizing attitudes' (p. 160). Furthermore, Ashforth et al. (2007) suggest that those who conduct dirty work may engage in avoidance behaviors, such as withholding information. In support of this suggestion, Thompson et al. (2003) found that people employed in some dirty work occupations did not inform their

parents, significant others, or children about their line of work, sometimes to the degree that they denied actually working as a 'dirty worker.'

As such, those who conduct dirty work may experience lower levels of social support and increased levels of social isolation. As a first step in this line of theoretical development, we wanted to explore if involvement with a dirty task relates to being less likely to talk about the work. Given our focus on stigmatized tasks within an occupation, we draw upon some of the theoretical postulations of Kreiner et al. (2006). They discuss how certain occupations have 'compartmentalized stigma' (p. 622), and that normalization efforts likely take the form of diverting attention away from the source of the taint. We suggest that engaging in a central dirty task will serve as a reminder of the taint, and that those who do so will therefore be more reluctant to talk about their work with outsiders than those who do not conduct a central dirty task:

*Hypothesis* 2: Dirty-task involvement will have a positive relationship with reluctance to discuss work with outsiders.

Work satisfaction. As suggested by conservation of resources theory (Hobfoll, 2001), the need to cope with the work itself as well as to cope with identity management should reduce the resources available to the worker to handle challenges. Depletion of resources should lead to dissatisfaction (Hobfoll, 2001). Many who conduct dirty work such as those we investigate in this study (animal-shelter workers who conduct animal euthanasia) are likely to find the work itself to be relatively dissatisfying given the unique challenges of doing the actual dirty work (e.g. working in close proximity to death) as well as the relative low prestige of the occupation. The work satisfaction literature has long demonstrated that tasks themselves can be dissatisfying when they fail to have important psychological meanings (Hackman and Oldham, 1975) or when the work conditions are dangerous, disgusting, dirty, or otherwise less than ideal (e.g. Smith et al., 1969).

Thus, we propose that dirty work tasks are linked to work dissatisfaction in two ways: via the work itself and via the drain on cognitive resources that arises owing to the need to manage stigma and the identity associated with doing dirty work. Therefore:

Hypothesis 3: Dirty task involvement negatively relates with work satisfaction.

Higher job involvement as an outcome of central dirty tasks. Job involvement is 'the degree to which an employee psychologically relates to his or her job and the work performed therein' (p. 244, Cooper-Hakim and Viswesvaran, 2005; see also Lodahl and Kejner, 1956). Given this definition, job involvement is an ideal construct to investigate within the context of dirty work because it not only represents in part identification (Riketta, 2005) but also the workers' psychological connection with the work itself. It is essential to recognize that job involvement does not necessarily mean a positive attitude toward the job; instead, job involvement reflects the extent to which the person is psychologically connected to the job. In fact, the notion that individuals can be psychologically connected to an object (such as a job) or person without feeling pleasure or other positive affect is not completely unusual in the literature.

For example, people who have high continuance commitment feel tied to their jobs yet may very well experience dissatisfaction with their jobs (Meyer and Allen, 1997; Meyer and Herscovitch, 2001; Meyer et al., 2002, 2006). Research in self-determination theory (Gagne and Deci, 2005; Sheldon et al., 2003) shows that people who subconsciously regulate their behavior or accept a goal feel psychologically bound to it via the internalization of externalized pressures, resulting in the experiences of guilt and shame if the behaviors and goals are not realized – and only the avoidance of such negative emotions if the behaviors and goals are realized. As a final example, drawing on the attachment literature (Ainsworth, 1994;

Bowlby, 1969), people who are high in attachment anxiety become preoccupied with their relationship partners (Collins et al., 2004; Collins and Read, 1994; Fraley and Waller, 1998). Subsequently, they act in ways that attempt to bring the attachment object closer, but their actions tend to be dysfunctional and, paradoxically, tend to drive the relationship partner further away (Benoit and Parker, 1994; Hazan and Shaver, 1990; Simpson and Rholes, 1998). Thus, anxiously attached individuals tend to feel dissatisfied because their needs for comfort and psychological safety are not being met.

### Ashforth and Kreiner (1999) proposed that:

Dirty workers may come to view their work as inherently significant and honorable and yet remain dissatisfied with various job facets. Indeed, as we will argue, the attribution of meaningfulness may at times depend on perceiving aspects of work as unpleasant (e.g. doing dirty work indicates toughness and self-sacrifice). (p. 414, footnote 1)

Because the stigma of dirty work poses a collective challenge to those who perform it (Ashforth and Kreiner, 1999), performing a central dirty task likely influences how workers view themselves and their organizational membership because it reminds them of this collective challenge. Stigma management is a cognitively draining process that includes normalizing tactics, identity management to hide stigmas, and being reminded of their dirty work distinction when interacting with others (Ashforth and Kreiner, 1999; Frable et al., 1990; Hughes, 1962). Dirty work tasks are likely to be salient in workers' work-related identities, and therefore their overall identities.

We posit that, among many workers, conducting dirty work necessarily tends to require a considerable degree of psychological exertion. This occurs because dirty work, with its need for identity management for both worker well-being (e.g. Hughes, 1956) and management of social relationships, requires individuals to exert greater effort in reflecting on their jobs, which heightens both their identification and psychological connection with the work itself. Thus, the experience of conducting dirty-work tasks and experiencing the social-psychological processes and pressures that lead to having such dirty tasks readily cognitively available – both from the individual's reflections on the tasks and the social context's reminders of these tasks – should be reflected in higher job involvement. This argument is also consistent with research suggesting that involvement may stem from an employee's exerted effort at work whereas satisfaction is not (Lawler and Hall, 1970). Therefore:

#### Hypothesis 4: Dirty-task involvement positively relates with job involvement.

These four hypotheses integrate a number of theoretical perspectives to give a more detailed picture of the worker's experience of dirty work as compared with those who do not engage in a central dirty task. Overall, these hypotheses suggest that engaging in a single salient dirty task results in a proposed pattern of outcomes going beyond what one would find with the addition of a stressful task to ones' workload. It is a pattern consistent with taint and stigma as it involves strain, enhanced job involvement, and greater withdrawal from outsiders. Next, we examine dirty work in a novel way by considering the role of central dirty tasks and within-group differences among those who conduct dirty work.

# Within-group investigation of those with dirty tasks

The bulk of current research on dirty work has taken a descriptive perspective. These studies have highlighted a number of ways in which those who conduct dirty work face a challenging occupational reality; however, they have not investigated the possibility that within-group variance may exist among those who conduct dirty work within an occupation. The importance in studying within-group variance among workers with dirty tasks stems from the fact that occupational groups and their members are inherently complex, and categorizing all members of a single occupation as similar oversimplifies that

complexity (Kreiner et al., 2006). Namely, as Kreiner et al. (2006) theorized, people may differ at the individual level in their responses to dirty-work stigma. To the best of our knowledge, this is the first study to take a closer look within a group of workers with dirty tasks in an attempt to uncover important, theoretically relevant aspects concerning how these workers may differ in their experiences. Of interest in this study are the outcomes associated with the frequency of engaging in the central dirty task and with dirty-task psychological salience, or the degree to which workers perceive a central dirty task as highly prominent in their minds.

Dirty-task frequency. In their typology of occupational dirty work, Kreiner et al. (2006) discuss how the stigma of dirty work becomes attached to an occupation because of the nature of the tasks its members perform. It follows that the frequency with which the employee carries out the dirty task is one factor that positively influences the likelihood that the job takes on characteristics of dirty work described above. For workers, that is, the frequency of the engagement in the central dirty task is one factor that serves to amplify the taint and stigma. Conversely, for those employees who only intermittently engage in a dirty task, the job as a whole is perhaps less likely to be experienced as dirty work.

Additionally, stigma experienced by those who conduct dirty work is not necessarily constant. Instead, the stigma workers perceive fluctuates based upon the salience of the threat to their positive identities (Ashforth and Kreiner, 1999). In other words, within an occupation containing a central dirty task, those who perform the central dirty task begin to see that task as part of what defines them as a group in contrast with those who do not perform the task.

Focusing solely on those who perform the task, repeated encounters with the central dirty task reacquaints them with the stigmatized marker of their group membership. Those who perform the central dirty task more often are reminded of the stigma more frequently than those who perform the central dirty task less frequently. For those with infrequent involvement, the dirty task is not as salient to their occupational identity or as taxing to their resources for dealing with strain as it is to those with frequent involvement. Based upon the increased pervasiveness of the dirty-task stigma (Kreiner et al., 2006) and the threat the dirty task poses to the identities (Ashforth and Kreiner, 1999) of workers who perform it more frequently, we expect that frequency of involvement with the central dirty task will explain within-group variance regarding this study's focal outcomes:

*Hypothesis 5*: The frequency with which workers encounter the central dirty task will positively relate with key indicators of employee strain, job involvement, and reluctance to discuss work with outsiders and negatively relate with work satisfaction.

Dirty-task psychological salience. In addition to dirty-task frequency, we considered another way in which those who conduct dirty work can vary with regard to a central dirty task. Namely, we investigated the role of dirty-task psychological salience, or how prominent the dirty task was in the minds of our respondents as a negative feature of their work. Employees may perceive a task as salient owing to a particular personal distaste for the task, prior life experiences, or a host of other reasons. These reasons are conceptually distinct from simple frequency. A person who mentions a specific task as the most negative aspect of her job, however, provides insight regarding the task's psychological salience.

People for whom the central dirty task is highly salient are likely to experience more of the identity-management conflict suggested by the social identity and system justification perspectives (Kreiner et al., 2006) described above than workers for whom the central dirty task is less salient. Therefore, dirty-task psychological salience will likely influence job involvement and work satisfaction. We expect this to occur for several reasons.

First, being highly aware of the central dirty task may trigger more frequent use of the normalization tactics suggested by Ashforth et al. (2007). These tactics necessarily require the worker to become even more psychologically invested in the work, likely resulting in higher levels of job involvement. Second, high levels of dirty-task psychological salience signals that the worker is highly aware of how he or she is different from other workers, reinforcing group membership criteria. As such, the worker is likely to cognitively categorize him or herself with fellow workers who engage in the central dirty task. Third, workers with high dirty-task psychological salience are highly aware of their involvement in a stigmatized activity. Therefore, they are likely to also perceive their involvement from society's perspective – that is, as dirty – corresponding with lower levels of work satisfaction.

Additionally, people for whom the central dirty task is highly salient are likely to expend considerable psychological resources coping with the dirty task's threat to their well-being. Conservation of resources theory (Hobfoll, 1989; Hobfoll and Freedy, 1993) suggests that such an extra demand on workers would likely result in the demand being evaluated as a stressor and a relevant antecedent to strain outcomes. Therefore, dirty-task psychological salience will likely influence key indicators of strain and workers' reluctance to talk about the work with outsiders. We expect these findings for two specific reasons.

First, perceiving a stigmatized task as highly psychologically salient indicates the potential for repetitive thoughts about the central dirty task. Given that we are interested in those instances in which those who conduct dirty work perceive the central dirty task as their most negative job aspect, we expect that these repetitive thoughts are likely to be unconstructive in nature. A large body of research suggests that such thoughts (e.g. rumination, worry, etc.) correlate with negative outcomes such as strain (Watkins, 2008). Second, engagement in the normalization tactic of social buffering by those with high levels of dirty-task psychological salience may negatively influence the well-being of those who conduct dirty work because it isolates them even more from other, more positive role identities (Ashforth et al., 2007). Taken together, we expect that dirty-task psychological salience correlates positively with employee strain:

*Hypothesis* 6: Workers who mention the dirty task, euthanasia, as the most negative aspect of their job will have higher levels of employee strain, job involvement, and reluctance to discuss work but lower work satisfaction than those who mention something other than euthanasia.

# Method

# Sample and procedure

To investigate dirty-work and dirty-task involvement, we chose to focus on animal-shelter workers because they perform a variety of tasks, some of which are 'dirtier' and therefore carry more stigma than others. For example, caring for animals does not necessarily present itself as a stigmatized activity. Some of the tasks (e.g. cleaning out cages, tending to hurt animals, etc.), however, contain some elements of what could be considered dirty work. We argue that one task in particular, animal euthanasia, stands apart from others in terms of its dirtiness. This is a central dirty task that some animal-shelter workers must perform, despite joining the field out of an affinity for animals (Rohlf and Bennett, 2005; Rollin, 1986). Euthanasia is a stigmatized task with both a moral and physical taint (owing to its proximity to death). The euthanasia process has two main steps. First, an animal is selected for euthanasia, based upon criteria often including the animal's health, available kennel space, behavior, age, and breed. Second, the animal is euthanized using an injection of sodium pentobarbital (e.g. American Veterinary Medical Association, 1993), after which the animal's body is disposed of.

The euthanasia process generally requires two people. One person holds the animal in a prescribed manner such that the employees are safe and the animal is secure. The holder will try to comfort the

animal through gentle strokes and soothing talk, positioning the animal so that the second employee can effectively inject the sodium pentobarbital. Within 10 seconds, the animal's respiration stops. A series of procedures assure that the animal is dead (e.g. touching the cornea). Euthanizing animals is, therefore, a physical act, a technical act, an emotional act, and an act putting the employee in direct contact with death. Consistent with the dirty work job typology provided by Ashforth and Kreiner (1999), this close contact with death places this task squarely into the dirty work domain.

Eighty-eight animal-shelter directors throughout the United States were contacted with requests for their shelter employees to participate in this study; 62 shelter directors agreed. We subsequently sent study materials to their sites, which they then distributed to their employees, whose most common job titles included animal care technician and animal care attendant. Most shelters were private, had five to 100 employees, and operating budgets from \$500,000 to \$1.5 million. Employee respondents returned their surveys directly to us. In total, respondents returned 499 usable surveys, an approximate response rate of 40%. Respondents reported their age in years as 18 to 24 (16.3%), 25 to 34 (30.8%), 35 to 44 (28.5%), 45 to 54 (21.4%), 55 to 64 (1%) and 65 or older (2%). Most (78.2%) were female and reported a moderate number of years working in an animal welfare job (M = 7.16, SD = 7.65). Respondents reported their highest levels of education obtained as 'some high school' (2.9%), 'graduated high school' (19.8%), 'some college' (40.5%), 'graduated college' (23.6%), 'some graduate work' (4.5%) and 'graduate degree' (8.8%).

#### Measures

Dirty-task involvement. Animal-shelter employees are typically responsible for feeding, nurturing, and keeping the animals' living conditions healthy and sanitary until adoption. Some of these employees also have euthanasia responsibilities. To assess this dirty-task involvement, we asked respondents toward the end of the survey whether their work put them in direct contact with animal euthanasia. The survey item read: 'Are you directly involved in the euthanasia of animals at your current shelter?' The response options were 'No, you have completed the survey. Thank you for very much for you time and effort' and 'Yes, please continue with the next question.' We dummy-coded responses as 0 (no direct euthanasia involvement) and 1 (direct euthanasia involvement).

*Dirty-task frequency*. Measuring respondents' frequency of conducting the dirty task involved us asking about the frequency of their involvement with animal euthanasia. The item read: 'About how often are you directly involved in the euthanizing of animals?' and had a five-point response option ranging from 1 (monthly) to 5 (daily).

*Dirty-task psychological salience*. To allow for a wide range of unconstrained responses, we used an open-ended question to assess the psychological salience of the dirty-task. We posed the following question to respondents:

Every job has positive aspects (tasks/activities you really like and want to do) and negative aspects (tasks/activities you really dislike and do not want to do). What is the most negative aspect of your job that occurs fairly regularly (either each day or at least once a week for a fairly substantial amount of time)? Please write this aspect of your job down below, and then answer the following questions.

Following data collection, two independent raters assessed the responses and coded them as either mentioning euthanasia or as describing a different job aspect (e.g. managerial conflicts, long hours, etc.). The raters compared their coding results and discussed any disagreements. Given the simplicity of this coding process (mentioning euthanasia versus not mentioning euthanasia), 100% agreement was found. We dummy-coded responses as 0 (non-euthanasia job aspect) and 1 (euthanasia).

One limitation of our measurement approach of this variable that became apparent in retrospect is that those who are involved in euthanasia but do so less than weekly may not have been likely to report euthanasia as the most negative aspect of their jobs. We do not, however, think this had a significant impact within this study for two reasons. First, there were very few employees in the dirty work group that had infrequent euthanasia involvement, so those low frequency scale values were rarely used. Second, we re-ran our analyses without the respondents who indicated low euthanasia-involvement frequency (n = 41, monthly or less than monthly involvement), and our pattern of results remained.

Employee strain. Multiple indicators of strain were used. We used the four items that comprise the work interference with family dimension of the Work-Family Conflict scale created by Gutek et al. (1991) to assess non-work-life discord stemming from work involvement (e.g. 'I find that thoughts about my work interfere with my non-work-life activities'). Responses were on a five-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). Reliability statistics suggested an acceptable level of internal consistency for the scale within our sample ( $\alpha = .88$ ). We measured burnout with the Maslach Burnout Inventory (MBI; Maslach and Jackson, 1981). For space considerations on the survey, we used the emotional exhaustion facet (eight items) of the burnout construct. The MBI is a common burnout measure in which respondents indicate how often they experience feelings such as frustration and fatigue (e.g. 'How often do you feel emotionally drained from your work?' and 'How often do you feel burned out from your work?'). Responses were on a seven-point scale ranging from 1 (never) to 7 (every day). Reliability statistics suggested an acceptable level of internal consistency for the scale within our sample ( $\alpha$  = .94). We used the Hopkins Symptom Check List (Derogatis et al., 1974), which comprises 13-items asking how often various physical symptoms (e.g. headache, sleep problems) distressed respondents during the past two months, as an indication of somatic complaints. Responses were on a five-point scale ranging from 1 (never or almost never) to 5 (almost always). Reliability statistics suggested an acceptable level of internal consistency for the scale within our sample ( $\alpha = .88$ ).

Reluctance to discuss work. We used two items developed for this study to assess respondents' reluctance to discuss work: 'I purposely avoid conversations about my work with other people (non-family, non-coworkers)' and 'I find myself "hiding" what I do from others because I know that I will be criticized.' Responses were on a five-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Reliability statistics suggested an acceptable level of internal consistency for the scale within our sample ( $\alpha = .81$ ).

Work satisfaction. To assess work satisfaction, we used the work satisfaction facet of the Job Descriptive Index (JDI; Balzer et al., 1997). These 18 items ask respondents to respond to a series of descriptors (e.g. 'fascinating,' 'can see results,' etc.) regarding their present work. Responses were on a three-point 'yes,' 'no,' and '?' response scale. Using standard JDI scoring protocols, we calculated a summed composite of the responses. Scores ranged from a low of 4 to a high of 54. Reliability statistics suggested an acceptable level of internal consistency for the scale within our sample ( $\alpha = .83$ ).

Job involvement. We used the nine items from Lodahl and Kejner's (1965) 20-item measure of job involvement that Reeve and Smith (2001) identified as having superior item statistics. Sample items included: 'I'll stay overtime to finish a job, even if I'm not paid for it,' 'The most important things that happen to me involve my work,' and 'I live, eat, and breathe my job.' Responses were on a five-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Reliability statistics suggested an acceptable level of internal consistency for the scale within our sample ( $\alpha = .80$ ).

Control variables. We assessed a wide range of demographic and work-experience control variables. These variables were organizational rank, competence in conducting euthanasia, tenure in animal welfare field (measured in years), education level ('some high school' to 'graduate degree'), sex (male or female),

age (in years), and attainment of euthanasia technician certification ('Are you currently a certified euthanasia technician?'). We measured organizational rank with the question, 'On a scale of 1 to 5, 1 = 1000 lowest, 5 = 100 highest, at what level would you rank your position within your organization?' To assess employees' perceptions of their own competence with conducting euthanasia, we used seven items adapted from the competence and self-determination portions of Spreitzer's (1995) Empowerment at Work Scale. Sample items include: 'I am confident in my ability to euthanize animals appropriately and effectively,' and 'I am self-assured about my capabilities to perform my euthanasia activities.' Response options ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). Reliability statistics suggested an acceptable level of internal consistency for the scale within our sample ( $\alpha = .83$ ).

#### Results

# Correlations and descriptive statistics

Of the 499 respondents, 317 (63.5%) reported direct involvement in euthanasia (workers with a central dirty task); 182 (36.5%) reported no direct involvement in euthanasia. Given the narrow range of job types that exist within typical animal shelters, the respondents were very similar in many respects. First, they were co-located within animal shelters and all had jobs that required frequent contact with animals. As such, they shared a common occupational context. Furthermore, we found no statistically significant differences between those who reported direct involvement with euthanasia and those who do not in terms of organizational level, tenure in animal welfare, extent of career experience with euthanasia, and education.

We did find statistically significant effects for euthanasia involvement, with employees who conduct euthanasia being more likely to be male, t(488) = 2.12, p < .05, and younger, t(489) = 3.16, p < .01, than employees who do not conduct euthanasia. Given these differences, we controlled for both age and gender in our subsequent between-groups regression analyses, which investigated the relationships between dirty-work involvement and work-to-family conflict, burnout, somatic complaints, reluctance to discuss work, work satisfaction, and job involvement. Importantly, these between-groups findings support our reasoning that the two groups – those who conduct dirty work and those who do not – were statistically similar across a number of variables, including organizational rank, tenure, extent of career experience with euthanasia, and education.

All descriptive statistics and correlations among focal study variables were largely as expected (see Table 1), with significant positive correlations between euthanasia involvement and indicators of employee strain and job involvement and a significant negative correlation between euthanasia involvement and work satisfaction. Below we report the results of additional analyses, starting first with between-groups analyses that compare those who conduct dirty work with those who do not, then reporting results for within-group analyses exploring those who conduct dirty work only.

The 499 respondents in this study were drawn from a set of 62 animal shelters, which ranged from having 1 (n = 8 shelters) to 28 respondents (n = 1 shelter) each (M = 8, SD = 6.83). As such, it was important to investigate whether we could consider these data to be independent (Bliese and Hanges, 2004). Following the procedures outlined by Bliese (2000), we calculated intra-class correlation coefficients (ICC[1]) using a one-way random effects analysis of variance model for all six dependent variables. For the following three dependent variables, the ICC(1) values were statistically non-significant: somatic complaints, job involvement, and reluctance to discuss work. For these three dependent variables, the ICC(1) values were significant (p < .05): work-to-family conflict, burnout, and work satisfaction. The resulting ICC(1) coefficients, however, were extremely small, .01, .01, and .01, respectively. These values suggest only a

minimal group-level effect (LeBreton and Sentor, 2008). Given these negligible effects, analyses related to the hypotheses were conducted at the individual level of analysis.

Between-groups investigation comparing those with a central dirty task to those without

Prior to testing our hypotheses, we considered whether the two groups of workers differed on a series of demographic factors that could confound our findings. Given noted gender differences in how employees cope with occupational stress and express anxiety (e.g. Arnténet al., 2008) and the influence of gender on the formation of occupational identity (e.g. Moore, 1999), we took into account differences in gender between the two groups in our sample. Likewise, we accounted for differences in age, given findings suggested by Trouillet et al. (2009) that age-related perceptions of the environment may influence changes in coping strategies.

We conducted six hierarchical regression analyses, one for each dependent variable. In each analysis, we controlled for respondent age and sex. Therefore, we entered the control variables discussed above in the first step of each regression analysis. In the second step, we entered the variable for dirty-task involvement. As displayed in Table 2, dirty-task engagement predicted higher levels of key indicators of employee strain (somatic complaints,  $\Delta R^2 = .02$ , work-to-family conflict,  $\Delta R^2 = .04$ , and burnout,  $\Delta R^2 = .04$ ), supporting Hypothesis 1; and higher reluctance to discuss work with outsiders ( $\Delta R^2 = .02$ ), supporting Hypothesis 2. Performing the central dirty task also predicted lower levels of work satisfaction ( $\Delta R^2 = .02$ ) and higher levels of job involvement ( $\Delta R^2 = .02$ ), supporting Hypothesis 3 and Hypothesis 4, respectively.

Within-group investigation of those with a central dirty task

Focusing next solely on those with central dirty-task (i.e. euthanasia) responsibilities (n = 317), we investigated variance regarding two focal areas related to the workers' physical and psychological involvement with the dirty task (euthanasia). Among these respondents, 128 (40.4%) reported the dirty-work task (euthanasia) as the most negative aspect of their jobs. The majority (189 or 59.6%) reported some other characteristic as the most negative aspect of their jobs (e.g. conflicts with supervisors, low pay, etc.). Specifically, we explored the role of dirty-task frequency, operationalized as euthanasia-involvement frequency, and dirty-task psychological salience, or naming euthanasia as the most negative aspect of one's job. Similar to the procedure in our between-groups analyses, we examined a number of key variables related to the employees' demographics and work experiences to determine any necessary control variables.

Regarding dirty-task frequency, we examined correlations between euthanasia-involvement frequency and respondents' age, sex, rank, tenure in animal welfare, extent of career experience in performing euthanasia, attainment of euthanasia-technician certification, and reported competence with conducting euthanasia. Of these variables, euthanasia-involvement frequency was significantly and positively related to attainment of euthanasia-technician certification, r(307) = .19, p < .01, and reported competence conducting euthanasia, r(300) = .31, p < .001. Therefore, we controlled for both attainment of euthanasia-technician certification and reported competence conducting euthanasia in our analyses regarding dirty-task frequency.

To test the influence of euthanasia-involvement frequency on key indicators of strain, and job attitudes, we conducted six hierarchical regression analyses. In these analyses, we tested the influence of euthanasia-involvement frequency on work-to-family conflict, burnout, somatic complaints, reluctance to discuss work, job involvement, and work satisfaction. We entered our control variables, attainment of euthanasia-technician certification and reported competence conducting euthanasia, in the first step. In the

second step, we entered euthanasia-involvement frequency. As displayed in Table 3, euthanasia-involvement frequency predicted higher levels of burnout,  $\Delta R^2 = .04$ , reluctance to discuss work,  $\Delta R^2 = .02$ , and job involvement,  $\Delta R^2 = .02$ ; and lower levels of work satisfaction,  $\Delta R^2 = .02$ . These results partially support Hypothesis 5.

In our analyses of dirty-task psychological salience, our predictor was a dichotomous variable describing whether the respondents had indicated euthanasia or some other job aspect as the most negative part of their jobs. Therefore, we wanted to explore whether these two groups differed on any key variables prior to conducting our analyses. We found no significant differences between workers who mentioned euthanasia as the most negative aspect of their jobs and workers who mentioned another job aspect as being the most negative with respect to age, gender, rank, tenure in animal welfare, education, extent of career experience in performing euthanasia, attainment of euthanasia-technician certification, or reported competence with conducting euthanasia. Given no significant differences between these two groups on a host of variables (as described above), we conducted six regression analyses that treated the dichotomous dirty-task psychological salience variable as the predictor and explored its influence on all of the study's outcome variables.

As displayed in Table 4, mentioning euthanasia as the most negative job aspect predicted higher levels of work-to-family conflict,  $\Delta R^2 = .02$ , burnout,  $\Delta R^2 = .02$ , and somatic complaints,  $\Delta R^2 = .02$ . Mentioning euthanasia as the most negative job aspect did not significantly predict work satisfaction, job involvement, or reluctance to discuss work. These findings provide partial support for Hypothesis 6.

#### Discussion

Research on dirty work (e.g. Ashforth and Kreiner, 1999, Kreiner et al., 2006), identification (e.g. Ashforth et al., 2008) and conservation of resources theory (Hobfoll, 1989) provide intriguing propositions regarding the complex individual and social phenomena faced by those who performed stigmatized work. The data analyzed in this study directly address these propositions by first taking a between-groups look at the outcomes of dirty tasks and then delved deeper into the phenomena by examining physical and psychological involvement with the dirty task. We conducted these analyses using a uniquely appropriate sample from the animal-welfare community, which comprises highly similar workers who differ on a key stigmatized task – those who perform animal euthanasia and those who do not conduct euthanasia.

Our results suggest that being involved in a dirty task affects key well-being outcomes for those who conduct dirty work and likely functions as a risk to employees' internal resources for coping with occupational stressors. Consistent with our propositions surrounding the role of social identity in stigmatized workers, higher levels of dirty-task involvement were related to higher levels of job involvement. Instead of withdrawing from their work given strain and dissatisfaction, it appears that those who conduct dirty work have a tendency to become even more involved with their jobs, a notion akin to that of identification (e.g. Ashforth et al., 2008). Interestingly, these findings are contradictory to what one would commonly expect based on widely accepted stressor-strain models, emphasizing that the integration of social identity theory frameworks in the study of well-being outcomes for stigmatized workers is an essential step in furthering our understanding of dirty-work occupations and dirty tasks.

It is important to note that these findings regarding job involvement are a preliminary exploration of the issue raised by Ashforth and Kreiner (1999), which postulates that those who conduct dirty work may experience simultaneous dissatisfaction and meaningfulness with their tasks. Our results suggest, but do not at all indicate, that normalization processes function as a mediator between dirty-task involvement and job involvement. More attention to the internal cognitive processes is essential if dirty-work research

is to move forward. Many of the relationships we found regarding the relationship between dirty-task involvement and attitudes (e.g. work satisfaction) are consistent with basic stigma research and with intuitive expectations about stigmatization. Job involvement, however, appears to go against this trend. Normalization might explain this, but so might other internal mechanisms. Without attending to the cognitive processes that people use to manage their stigmatization and dirty work experiences, we have little true understanding of how these experiences are transformed into attitudes and, consequently, subsequent behavior.

Consistent with the propositions we derived from conservation of resources theory, employees who were involved in dirty tasks were less likely to discuss their work with others. Hence, they likely suffered from a loss of resources that can only be accumulated if work can be openly discussed with others and if social relations can be built on the basis of these discussions. As dirty-task involvement likely functioned as a threat to the development and maintenance of key social resources outside work, dirty-task involvement was related negatively to work satisfaction, and positively related to higher levels of physical symptoms and other negative well-being outcomes (somatic complaints, work-to-family conflict, and burnout) respectively. These results provide quantitative confirmation and extension of prior conceptual work on the outcomes of dirty work (e.g. Ashforth et al., 2007). Specifically, showing the relationships between dirty-task involvement and reluctance to discuss work and job involvement extend theories related to dirty work as well as widely used stressor-strain models by utilizing a social-identity based approach to identifying and testing relationships.

These study results are also consistent with stigma research outside the work domain. Heatherton et al. (2000), in their seminal book on the social psychology of stigma, discuss how individuals who perceive themselves to be part of a stigmatized group, even when the stigma is not readily apparent to others (e.g. the public is not aware that the person does a dirty task), often experience psychological strain. Similarly, the clinical psychology literature shows that individuals with mental health issues often experience self-stigma. This is the idea that people with mental illness hold prejudice and other negative thoughts about themselves regarding the mental illness even when it is not apparent to others (Corrigan and Watson, 2002).

# Dirty-task frequency and psychological salience

Although studies of dirty work have shed light on the experiences of those who conduct dirty work, our study adds a layer of complexity by investigating types of involvement with dirty tasks. Consistent with conservation of resources theory, and by extending the theory to the domain of dirty tasks, we found that for individuals who perceived the dirty task as salient enough to describe it as the most central negative aspect of their job, strain outcomes were more pronounced. We found that dirty-task frequency and dirty-task psychological salience matter as they can function as key threats to employees' abilities to build and maintain valued resources, such as social relationships with others. Being physically close to the dirty task (operationalized here as euthanasia-involvement frequency) predicted higher levels of burnout, reluctance to discuss work, and job involvement; and lower levels of work satisfaction. In a sense, then, we can think of physical proximity to a dirty task as a meaningful variable for future research to explore.

In addition to being close to a central dirty task physically, employees can be close to a dirty task psychologically. That is, they can have high levels of dirty-task psychological salience. Among our respondents, slightly less than half reported the central dirty task (euthanasia) as the most negative aspect of their jobs. We find this interesting, as we expected more respondents to mention the particularly noxious task of animal euthanasia as the worst part of their job. A potential explanation of why fewer employees than expected hold the central dirty task as highly psychologically salient could be that many

of them do, in fact, use cognitive tactics such as those suggested by Ashforth et al. (2007) when facing the stigma of dirty work. Such tactics may reduce the salience of the dirty task, or at least recast it as not being negative for some employees. In partial support of Hypothesis 6, we found that employees who mentioned the dirty task as the most negative aspect of their jobs had higher levels of work-to-family conflict, burnout, and somatic complaints. Thus, a dirty worker who has relatively little contact with the dirty task (i.e. low frequency) could still be strongly affected by the stigma owing to their own dirty-task psychological salience. Future research, therefore, should further examine the differences in how psychological and physical proximity to tainted tasks influence employees' perceptions, attitudes, and levels of strain.

We did have mixed findings regarding Hypotheses 5 and 6. Specifically, dirty-task frequency related with higher levels of burnout, job involvement, reluctance to discuss work with outsiders and lower levels of work satisfaction; but not with somatic complaints or work-to-family conflict. Dirty-task psychological salience, however, related with higher levels of somatic complaints, work-to-family conflict, and burnout but not with any of the other outcome variables. Therefore, burnout was the only common outcome across both predictors.

It appears possible, therefore, that dirty-task frequency and dirty-task psychological salience may have differential influences on workers based on the role the dirty tasks play as threats to worker's limited cognitive resources and in terms of their role for an individual's social identity. Dirty-task frequency – for example, frequent exposure – may influence employee outcomes related to their attitudes and identity (e.g. reluctance to discuss work, job involvement, and work satisfaction). Dirty-task psychological salience, on the other hand, appears to influence outcomes more related to employee health and well-being (e.g. somatic complaints, work-to-family conflict).

At the theoretical level, these mixed findings are intriguing. Our hypothesized premise was that, based upon conservation of resources theory (e.g. Hobfoll, 1989), dirty-task involvement taxes employees' cognitive resources, resulting in strain. This appears to be the case given the support we found for Hypothesis 1. In our within-group analyses, however, sheer frequency of involvement was unrelated to two key indicators of strain. Instead, it could be the case that certain types of thoughts may be more taxing to one's resources – and, therefore, more related to strain outcomes – than others. In particular, negative thoughts about the dirty task may demand more cognitive resources than cognitive processes stemming from being physically involved with the task in a way that is visible to others. Namely, regarding the dirty task as highly negative may involve continual rumination and cognitive effort whereas simply conducting the dirty task more often may be easier to reconcile psychologically. This may explain in part why regarding the central dirty task as the most negative aspect of one's job is related to strain outcomes such as work-to-family conflict and somatic complaints, whereas increased dirty-task frequency is not.

Furthermore, drawing upon the perspectives of social identity and system justification (Kreiner et al., 2006), it could be that those who conduct dirty work who view the central dirty task as the most negative part of their jobs have aligned themselves more closely with society's view of the work (as 'dirty') than with an identity-enhancing view (e.g. as tough work that only they can handle). Such an alignment could make these workers more susceptible to the stigma of the dirty work. Furthermore, such an alignment would explain why these workers do not demonstrate increased levels of job involvement. Regarding their discussion of work with outsiders, those who view the dirty task as the most negative aspect of their jobs may in fact talk about it to an extent that it influences conflict at home.

Another possibility that we explored as an additional exploration is that dirty-task involvement frequency has a non-linear relationship with strain. In particular, we tested for a quadratic relationship between dirty-task involvement and strain, which would reveal whether dirty-task involvement corresponds with increasing levels of strain that eventually plateaus or even decreases. We did not find any evidence of this type of relationship. We do, however, feel that considering non-linear relationships in future studies could further theoretical development. For example, such future studies could help explicate how the normalization tactics suggested by Ashforth et al. (2007) operate at different levels of exposure to central dirty tasks. Therefore, we encourage future studies to theorize and specifically test hypotheses advancing a curvilinear relationship between dirty-task involvement and its outcomes.

#### Future directions

Given this study's unique perspective focusing on dirty tasks, it is our hope that it will prompt much additional work. For example, our study design does not allow us to draw conclusions regarding directionality of the relationships among constructs. Rather than dirty-task involvement driving outcomes such as burnout, for example, it could be the case that burned-out employees are more likely to perceive their work as 'dirty.' Future research involving longitudinal designs, therefore, would be helpful in advancing knowledge about the outcomes of dirty-task involvement.

Theoretically, our findings provide a more nuanced picture of those who conduct dirty work. Rather than being characterized as a homogeneous group with similar stigma-response patterns, those who conduct dirty work may be better understood by considering moderating influences with differential impact on individual responses. The current study identified two such influences, dirty-task frequency and dirty-task psychological salience. These two influences highlight one way in which stigma-response patterns may differ. In the case of high dirty-task frequency, one can 'wash off' or otherwise disassociate oneself from the stigma. The case of high dirty-task psychological salience, however, presents a more difficult situation for the worker to endure given that the dirtiness may be rooted within the worker's thoughts.

From our findings regarding the relationship between dirty-work involvement and job involvement, we see the need for studying two additional variables in future research. First, identification should be investigated as part of future studies to determine its link with job involvement among those who conduct dirty work. Second, future studies could attempt to measure normalization tactics employed by those who conduct dirty work to further explicate how reframing, recalibrating, and refocusing facilitate job involvement. Normalization tactics are likely additional mechanisms through which dirty-work involvement influences job involvement; however, we did not measure normalization tactics in this study. Future research could consider including such variables. We also see the need to further understand how the public view dirty tasks and whether they attribute the taint associated with these tasks to all who work in the occupation. This would aid in the understanding if those who conduct dirty work view the stigma do so as a response to social norms or in concert with groups salient to their social identities.

One distinct area for future research involves expanding the perspective of looking more closely at dirty tasks and how they influence employees. Specifically, work that looks at the frequency of doing dirty tasks in comparison to non-dirty tasks could be especially promising. For example, future studies could explore how the ratio of a worker's dirty tasks to non-dirty tasks influence issues related to identity and well-being. Building upon this idea, future work could also explore the role of prevalence of those who conduct dirty work in relation to these same outcomes. Namely, workers who are the only ones involved in dirty tasks at their place of work are likely to have a highly different work experience than those who have a large group of people with whom they share the common experience of dirty-task stigma.

Furthermore, future research and theoretical development should expand beyond dirty-task frequency and dirty-task psychological salience to explore potential moderators of the relationship between dirty-task involvement and key outcomes. One such area may include individual difference factors such as personality, which may impact responses to the dirty work stigma. For example, exploratory qualitative research has indicated the importance of hardiness and sense of coherence for buffering palliative care hospice workers from experiencing psychological distress (Ablett and Jones, 2007). It would also be beneficial to theoretical development in this area to investigate moderators that assess specific group identification levels and perceptions of system justification. For example, if those who conduct a dirty task do not care about how society views what they do, the strength of the relationship between such involvement and key outcomes might be reduced.

In addition, Bergman and Chalkley (2007) posited that the extent to which a person has control over their employment in a dirty work occupation will influence the 'stickiness' of the stigma. The extent that people perceive autonomy over their occupational selection may affect their response to the associated stigma. That is, people who feel that they are employed in dirty work out of personal choice may internalize the occupational stigma more than people who feel they are involved in dirty work for reasons out of their control. Finally, the current study revealed reluctance by shelter-workers involved in euthanasia to talk about work with non-family and non-coworkers. Given the benefits of social support for coping, future research may examine differences in organizational social support. Perhaps perceived organizational social support can be a compensatory mechanism of sorts and thus moderate the impact of dirty work on employee well-being.

Future research should examine other outcomes of dirty work involvement, such as actual job performance, absenteeism, and other objective indicators of withdrawal. This type of work has simply not been done. Related to the notion of withdrawal, it would be interesting to investigate workers' tenure and perceptions of the job (e.g. as 'just a job' or as a career) in relation to the outcomes we studied. Another interesting direction would be to compare different ways of psychologically preparing workers for their involvement with dirty tasks. For example, researchers could examine different proactive interventions by managers to evaluate their influence on dirty-work-related job outcomes.

Finally, future work examining different types of occupations with different types of stigmatized tasks is warranted to determine our findings' generalizability. In particular, an interesting area to explore would involve dirty work with different levels of relative prestige, following the typology outlined in Ashforth et al. (2007). Our sample comprised workers of relatively low prestige, which may partly explain our findings of dirty-task involvement relating with higher job involvement but lower work satisfaction. It is possible that dirty-tasks within relatively higher-prestige dirty occupations (e.g. morticians) may influence job involvement and work satisfaction differently than in our sample. It may be the case the prestige shields those who conduct dirty work from some of the negative work satisfaction stemming from their dirty-task involvement.

# Practical implications

Thousands of people work within dirty-work occupations or encounter stigmatized tasks within their jobs. Not only must these workers cope with their own feelings regarding what they do and who they are as individuals based upon their work, but they must do so within the context of stigma. This study suggests that managers of organizations likely to include those who conduct dirty work should pay special attention to their workers for signs of lower well-being. Additionally, open communication with employees may help managers to assess the levels of dirty-task psychological salience. Managers can then suggest a variety of coping strategies to employees, potentially including those described by previous

research, such as training employees both in the actual task to boost their competence as well as in how they regulate their emotions pertaining to the task (Baran et al., 2009). Consistent with conservation of resources theory, providing these resources to employees should bolster their ability to cope with the toll of dirty work in a constructive manner.

Additionally, managers may want to assess their employees' dirty-task frequency and dirty-task psychological salience. By identifying those who are experiencing extreme closeness to the stigmatized task, specific interventions could be developed as well as opportunities for training on how to cope with the stigma. Though it is unlikely that the dirty task can be removed completely, perhaps rotating out those who are most affected by the task may be an appropriate response for managers. Given the findings relating to reluctance to discuss work, managers may want to consider non-threatening ways in which employees can vent about and seek help regarding their own well-being. For example, on-site counseling may be of use to employees who feel stigmatized given that it may present a valuable resource for the employees. According to conservation of resources theory, having such resources available could reduce the propensity of such employees to experience strain.

Building from the notion that dirty tasks may decrease or threaten the decrease of cognitive resources available to employees, managers could look for ways to increase a broad range of resources available to employees. Conservation of resources theory suggests that these types of actions should reduce employee strain. For example, improving specific processes within the organization – for example, involving employees in streamlining procedures, facilitating communication across departmental boundaries, and initiating mechanisms for employees to provide improvement suggestions to management – could provide resources to employees in the form of reduced frustration or unnecessary effort. Such improvement efforts could be particularly helpful to employees who face losing resources owing to dirty-task involvement.

From the perspective of social identity theory, this study suggests a number of ways to bolster the well-being of those with central dirty-work tasks. In particular, organizations with employees who conduct dirty work could identify and present a variety of opportunities for their workers to identify with positive workplace activities. Within animal shelters, for example, managers could make time available and present opportunities for workers to engage in community outreach, public education, and animal adoption efforts. Having these positive workplace activities could offset some of the negative identification that occurs from being involved in dirty work.

#### Potential limitations

Like all research, this study had limitations worth mentioning. First, our study was potentially susceptible to common-method bias because predictor and criterion variables were assessed on the same instrument. However, it is important to note a number of key factors that suggest that common-method bias is not a substantive concern (Conway and Lance, 2010). First, our pattern of results was fully consistent with theory and included a pattern of significant and non-significant results. Second, Podsakoff et al. (2003) discussed how social desirability tendencies often lead to common-method bias. To counter this, they recommend that respondents be assured anonymity and that evaluation apprehension is reduced. To that end, our surveys were anonymous. Respondents were explicitly told to avoid placing identifying information on the survey. Furthermore, given the nature of the sampling approach used it was obvious to respondents that their employers would not be in any position to see individual responses. Third, and perhaps most importantly, common-method bias is most typically found when examining relationships between perceptual variables assessed on the same survey at the same time (e.g. job satisfaction and organizational commitment). Our principal predictors were not attitude based per se. Respondents

reported out on what is described as 'objective' characteristics of their job. Furthermore, even when we broke the sample into subgroups, we did it using responses to a qualitative item that was content coded rather than another quantitative measure. Variables such as this are less prone to common-method bias issues. Still, future research can address this concern more fully by assessing similar constructs at multiple time points, perhaps using a longitudinal framework.

#### Conclusion

In conclusion, this study suggests that because dirty-task employees deal with stigmatized tasks themselves – in this case, the euthanasia of cared-for animals – and experience the associated public stigma (e.g. White and Shawhan, 1996), they may experience higher strain than non-dirty task employees within the same organization. We also further integrate propositions derived from Hobfoll's (1989) conservation of resources model, and Tajfel's (1982) social identity theory and hence extend the array of theoretical frameworks that have been applied to the study of dirty work. Taken together, those who conduct dirty work appear to be highly involved yet highly stressed and dissatisfied workers. Future research on those who conduct dirty work should investigate the extent to which the mere exposure to dirty work helps develop within-organization group variation on important work outcomes, and how the threats to resources that originate in dirty work tasks can be mitigated by organizations and those who conduct dirty work themselves.

### Acknowledgements

We thank the editor Stephen Deery and three anonymous reviewers for their helpful suggestions.

### **Funding**

This work was supported by the Humane Society of the United States, 2003–2004.

**Benjamin E Baran** is Assistant Professor of Management in the Haile/US Bank College of Business at Northern Kentucky University, USA. His research interests include adaptive job performance, leadership, micro foundations of competitive advantage, and dirty work. A US Navy veteran, he continues his service as a lieutenant commander in the US Navy Reserve, within which he regularly consults on issues related to human capital management. His research has appeared in journals including *Journal of Business and Psychology, Small Group Research, Accident Analysis and Prevention*, and *Military Psychology*. [Email: baranb1@nku.edu]

**Steven G Rogelberg** is Professor and Director of Organizational Science at the University of North Carolina at Charlotte, USA. His research interests include leadership, research methods, meetings and teams, and dirty work. His more than 70 publications and 50 invited presentations have addressed issues including teams, employee well-being, workplace meetings, research methods, and organizational development. He is the editor of *Journal of Business and Psychology*, the Talent Management Essentials book series, and serves or has served as Special Feature Guest Editor for *Organizational Research Methods* and *Small Group Research*. He served as Editor-in-Chief of the two-volume *Encyclopedia of Industrial and Organizational Psychology* (2006) and the *Handbook of Research Methods in Industrial and Organizational Psychology* (2002, 2004), and he is a Fellow of the Society of Industrial and Organizational Psychology and Association for Psychological Science. [Email: sgrogelb@uncc.edu]

**Erika Carello Lopina** is a doctoral student in Organizational Science at the University of North Carolina at Charlotte, USA. Her research interests include the aging workforce, employee socialization, and dirty work. Her research has appeared in *Journal of Occupational and Organizational Psychology*. [Email: ecarello@uncc.edu]

**Joseph A Allen** is Assistant Professor of Industrial/Organizational Psychology at Creighton University, USA. His research interests include workplace meetings, emotion management, volunteer management, and dirty work. His research on these topics has appeared in various journals including *Human Performance, Human Resources Management, Non-profit Management and Leadership Journal*, and *Group Dynamics: Theory, Research, and Practice*. [Email: josephallen1@creighton.edu]

Christiane Spitzmüller is Associate Professor of Psychology at the University of Houston, USA. Her research interests include employee well-being, job satisfaction, and dirty work. Her research has appeared in journals including *Journal of Applied Psychology, Personnel Psychology, Educational and Psychological Measurement*, and *International Journal of Selection and Assessment*. [Email: christiane.spitzmueller@mail.uh.edu]

**Mindy Bergman** is Associate Professor in the Department of Psychology and a Faculty Fellow of the Mary Kay O'Connor Process Safety Center at Texas A&M University, USA. Her research interests include occupational health psychology, workplace discrimination and harassment, organizational commitment, and safety climate. Her work has appeared in *Journal of Occupational Health Psychology, Journal of Applied Psychology, Journal of Occupational and Organizational Psychology*, and *Accident Analysis and Prevention*. [Email: mindybergman@tamu.edu]

Table I Descriptive statistics and zero-order correlations among study variables<sup>a</sup>

		<u>'</u>										
		М	SD	1	2	3	4	5	6	7	8	9
I.	Euthanasia involvement	.64	.48	-								
2.	Euthanasia frequency	4.50	1.41	NAb	-							
3.	Euthanasia as most negative job aspect	.31	.46	.27***	.20***	-						
4.	Work-to- family conflict	2.93	.99	.20***	.03	.14**	-					
5.	Burnout	3.81	1.64	.23***	.17**	.15**	.66***	_				
6.	Somatic complaints	2.20	.75	.16***	.09	.13**	.50***	.63***	-			
7.	Reluctance to discuss work	1.84	.97	.13**	.11*	.06	.23***	.39***	.36***	-		
8.	Job involvement	3.13	.65	.11*	.10	.12*	.32***	.09*	.17***	07	-	
9.	Work satisfaction	40.56	10.14	16***	08	07	24***	45***	28***	3I***	.24***	-

aNs range from 314 to 499 due to euthanasia frequency applying only to employees who conduct euthanasia. bNA indicates not applicable due to euthanasia involvement, which is a dichotomous variable, being a constant for euthanasia frequency. Correlations with dichotomous variables are point-biserial correlations. \*p < .05; \*\*p < .01; \*\*\*\* p < .001.

Table 2 Summary of hierarchical regression analysis for outcomes of euthanasia involvement<sup>a</sup>

Control variables	Criterion variables ( $\beta$ )								
	Somatic complaints	Work-to- family conflict	Burnout	Job involvement	Work satisfaction	Reluctance to discuss work			
Age	11*	05	13**	03	.11*	.02			
Sex	.14**	.08	.08	.22***	.08	02			
Predictor variable									
Euthanasia involvement	.16**	.20***	.20***	.13**	I4**	.13**			
F change for euthanasia involvement	11.93**	19.44***	20.14***	7.67**	9.65**	7.81**			
$\Delta R^2$ for euthanasia involvement	.02	.04	.04	.02	.02	.02			
Total R <sup>2</sup>	.06	.05	.07	.06	.04	.02			

<sup>a</sup>Listwise N=478. For ease of presentation, statistics listed are from step 2 of the regression analyses. Step I (control variables only) statistics are not displayed.  $\beta=$  standardized beta weight. p<.05; \*\* p<.01; \*\*\* p<.01.

 Table 3 Summary of hierarchical regression analysis for outcomes of central dirty-task involvement frequency<sup>a</sup>

Control variables	Criterion variables (β)								
	Somatic complaints	Work- to-family conflict	Burnout	Job involvement	Work satisfaction	Reluctance to discuss work			
Euthanasia certification	.16*	.13*	.13*	11	09	.17**			
Euthanasia competence Predictor variable	.06	09	08	06	.15*	16*			
Euthanasia frequency	.12	.05	.20**	.16*	I4*	.13*			
F change for euthanasia frequency	3.63	.58	11.04**	6.56*	5.35*	4.48*			
ΔR <sup>2</sup> for euthanasia frequency	.01	.00	.04	.02	.02	.02			
Total R <sup>2</sup>	.03	.02	.05	.04	.03	.05			

<sup>&</sup>lt;sup>a</sup>Listwise n=292. For ease of presentation, statistics listed are from step 2 of the regression analyses. Step I (control variables only) statistics are not displayed.  $\beta=$  standardized beta weight.

Table 4 Summary of hierarchical regression analysis for central dirty-task salience<sup>a</sup>

Predictor variable	Criterion variables ( $\beta$ )								
	Somatic complaints	Work- to-family conflict	Burnout	Job involvement	Work satisfaction	Reluctance to discuss work			
Euthanasia as most negative job aspect	.13*	.13*	.12*	.09	06	.08			
F change for euthanasia as most negative job aspect	5.55*	5.13*	4.80*	2.71	.95	1.76			
ΔR <sup>2</sup> for euthanasia as most negative job aspect	.02	.02	.02	.01	.00	.01			
Total R <sup>2</sup>	.02	.02	.02	.01	.00	.01			

<sup>&</sup>lt;sup>a</sup>Listwise n = 310.  $\beta = standardized beta weight.$ 

p < .05; \*\* p < .01.

<sup>\*</sup>p < .05.

#### References

- Ablett JR and Jones RSP (2007) Resilience and well-being in palliative care staff: A qualitative study of hospice nurses' experience of work. *Psycho-Oncology* 16(8): 733–740.
- Ainsworth MDS, Blehar MC, Waters E and Wall S (1978) *Patterns of Attachment: A Psychological Study of the Strange Situation*. Hillsdale, NJ: Lawrence Erlbaum.
- American Veterinary Medical Association (1993) Report of the AVMA panel on euthanasia. *Journal of the American Veterinary Medical Association* 202(2): 229–249.
- Arntén A, Jansson B and Archer T (2008) Influence of affective personality type and gender upon coping behavior, mood, and stress. *Individual Differences Research* 6(3): 139–168.
- Ashforth BE and Kreiner GE (1999) 'How can you do it?': Dirty work and the challenge of constructing a positive identity. *Academy of Management Review* 24(3): 413–434.
- Ashforth BE and Mael F (1989) Social identity theory and the organization. *Academy of Management Review* 14(1): 20–39.
- Ashforth BE, Harrison SH and Corley KG (2008) Identification in organizations: An examination of four fundamental questions. *Journal of Management* 34(3): 325–274.
- Ashforth BE, Kreiner G, Clark M and Fugate M (2007) Normalizing dirty work: Managerial tactics for countering occupational taint. *Academy of Management Journal* 50(1): 149–174.
- Balzer WK, Kihm JA, Smith PC, Irwin JL, Bachiochi PD, Robie C, et al. (1997) *Users' Manual for the Job Descriptive Index (JDI; 1997 Revision) and the Job In General scales.* Bowling Green, OH: Bowling Green State University.
- Baran BE, Allen JA, Rogelberg SG, Spitzmüller C, DiGiacomo NA, Webb JB, Carter NT, Clark OL, Teeter LA and Walker AG (2009) Euthanasia-related strain and coping strategies in animal shelter employees. *Journal of the American Veterinary Medical Association* 235(1): 83–88.
- Benoit D and Parker KCH (1994) Stability and transmission of attachment across three generations. *Child Development* 65: 1444–1456.
- Bergman ME and Chalkley KM (2007) 'Ex' marks a spot: The stickiness of dirty work and other removed stigmas. *Journal of Occupational Health Psychology* 12(3): 251–265.
- Bliese PD (2000) Within-group agreement, non-independence, and reliability: Implications for data aggregation and analysis. In: Klein KJ and Kozlowski SW (eds) *Multilevel Theory, Research, and Methods in Organizations*. San Francisco, CA: Jossey-Bass, 349–381.
- Bliese PD and Hanges PJ (2004) Being both too liberal and too conservative: The perils of treating grouped data as though they were independent. *Organizational Research Methods* 7(4): 400–417.
- Bolton S (2005) Women's work, dirty work: The gynaecology nurse as 'other'. *Gender, Work & Organization* 12(2): 169–186.
- Bowlby J (1969) *Attachment and Loss; Volume I: Attachment*. London: Tavistock Institute of Human Relations.
- Cohen S and Wills TA (1985) Stress, social support, and the buffering hypothesis. *Psychological Bulletin* 98(2): 310–357.
- Collins NL and Read SJ (1994) Cognitive representations of attachment: The structure and function of working models. In: Bartholomew K and Perlman D (eds) *Advances in Personal Relationships*, vol. 5. London: Jessica Kingsley, 53–90.
- Collins NL, Guichard AC, Ford MB and Feeney BC (2004) Working models of attachment: New developments and emerging themes. In: Rholes WS and Simpson JA (eds) *Adult Attachment: Theory, Research, and Clinical Implications*. New York: Guilford, 126–239.
- Conway JM and Lance CE (2010) What reviewers should expect from authors regarding common method bias in organizational research. *Journal of Business and Psychology* 25(3): 325–334.
- Cooper-Hakim A and Viswesvaran C (2005) The construct of work commitment: Testing an integrative framework. *Psychological Bulletin* 131(2): 241–259.
- Corrigan PW and Watson AC (2002) The paradox of self-stigma and mental illness. *Clinical Psychology: Science and Practice* 9(1): 35–53.

- Derogatis LR, Lipman RS, Rickles K, Uhlenhuth EH and Covi L (1974) The Hopkins Symptom Checklist (HSCL): A self-report symptom inventory. *Behavioral Science* 19(1): 1–19.
- Dick P (2005) Dirty work designations: How police officers account for their use of coercive force. *Human Relations* 58(11): 1363–1390.
- Frable DE, Blackstone T and Scherbaum C (1990) Marginal and mindful: Deviants in social interactions. *Journal of Personality and Social Psychology* 59(1): 140–149.
- Fraley RC and Waller NG (1998) Adult attachment patterns: A test of the typological model. In: Simpson JA and Rholes WS (eds) *Attachment Theory and Close Relationships*. New York: Guilford, 77–114.
- Frommer SS and Arluke A (1999). Loving them to death: blame-displacing strategies of animal-shelter workers and surrenders. *Society & Animals* 7(1): 1–16.
- Gagne M and Deci EL (2005) Self-determination theory and work motivation. *Journal of Organizational Behavior* 26(4): 331–362.
- Guerrier Y and Adib A (2003) Work at leisure and leisure at work: A study of the emotional labour of tour reps. *Human Relations* 56(11): 1399–1417.
- Gusterson H (1996) *Nuclear Rites: A Weapons Laboratory at the End of the Cold War*. Berkeley: University of California Press.
- Gutek BA, Searle S and Klepa L (1991) Rational versus gender role explanations for work-family conflict. *Journal of Applied Psychology* 76(4): 560–568.
- Hackman JR and Oldham GR (1975) Development of the job diagnostic survey. *Journal of Applied Psychology* 60(2): 159–170.
- Hazan C and Shaver PR (1990) Love and work: An attachment-theoretical perspective. *Journal of Personality and Social Psychology* 59(2): 270–280.
- Heatherton TF, Kleck RE, Hebl MR and Hull JG (2000) *The Social Psychology of Stigma*. New York: Guilford Press.
- Hobfoll S (1989) Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist* 44(3): 513–524.
- Hobfoll SE (2001) The influence of culture, community and the nested-self in the stress process: Advancing conservation of resources theory. *Applied Psychology: An International Review* 50(3): 337–421.
- Hobfoll SE and Freedy J (1993) Conservation of resources: A general stress theory applied to burnout. In: Schaufeli WB, Maslach C and Marek T (eds) *Professional Burnout: Recent Developments in Theory and Research.* Washington, DC: Taylor & Francis, 115–129.
- Hogg MA, Terry DJ and White KM (1995) A tale of two theories: A critical comparison of identity theory with social identity theory. *Social Psychology Quarterly* 58(4): 255–269.
- Hughes EC (1956) The making of a physician General statement of ideas and problems. *Human Organization* 14(4): 21–25.
- Hughes EC (1962) Good people and dirty work. Social Problems 10(1): 3–11.
- Jost JT and Banaji MR (1994) The role of stereotyping in system justification and the production of false consciousness. *British Journal of Social Psychology* 33(1): 1–27.
- Kidder J (2006) 'It's the job that I love': Bike messengers and edgework. *Sociological Forum* 21(1): 31–54.
- Kreiner GE, Ashforth BE and Sluss DM (2006) Identity dynamics in occupational dirty work: Integrating social identity and system justification perspectives. *Organization Science* 17(5): 619–636.
- Kulik C, Bainbridge H and Cregan C (2008) Known by the company we keep: Stigma-by-association effects in the workplace. *Academy of Management Review* 33(1): 216–230.
- Lawler EE and Hall DT (1970) Relationship of job characteristics to job involvement, satisfaction, and intrinsic motivation. *Journal of Applied Psychology* 54(4): 305–312.
- LeBreton JM and Sentor JL (2008) Answers to 20 questions about interrater reliability and interrater agreement. *Organizational Research Methods* 11(4): 815–852.
- Lodahl TM and Kejner M (1965) The definition and measurement of job involvement. *Journal of Applied Psychology* 49: 24–33.

- Maslach C and Jackson SE (1981) The measurement of experienced burnout. *Journal of Occupational Behavior* 2: 99–113.
- Meisenbach RJ (2008) Working with tensions: Materiality, discourse, and (dis)empowerment in occupational identity negotiation among higher education fund-raisers. *Management Communication Quarterly* 22(2): 258–287.
- Meyer JP and Allen NJ (1997) *Commitment in the Workplace: Theory, Research, and Application.* Newbury Park, CA: SAGE.
- Meyer JP and Herscovitch L (2001) Commitment in the workplace: Toward a general model. *Human Resource Management Review* 11(3): 299–326.
- Meyer JP, Becker TE and Van Dick R (2006) Social identities and commitments at work: Toward an integrative model. *Journal of Organizational Behavior* 27(5): 665–683.
- Meyer JP, Stanley DJ, Herscovitch L and Topolnytsky L (2002) Affective, continuance and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior* 61(1): 20–52.
- Moore D (1999) Gender traits and identities in a 'masculine' organization: The Israeli police force. *Journal of Social Psychology* 139(1): 49–68.
- Paetzold RL, Dipboye RL and Elsbach KD (2008) A new look at stigmatization in and of organizations. *Academy of Management Review* 33(1): 186–193.
- Podsakoff PM, MacKenzie SB, Lee JY and Podsakoff NP (2003) Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology* 88(5): 879–903.
- Reeve CL and Smith CS (2001) Refining Lodahl and Kejner's job involvement scale with a convergent evidence approach: Applying multiple methods to multiple samples. *Organizational Research Methods* 4(2): 91–111.
- Reeve CL, Rogelberg SG, Spitzmuller C and DiGiacomo N (2005) The caring–killing paradox: Euthanasia-related strain among animal-shelter workers. *Journal of Applied Social Psychology* 35(1): 119–143.
- Riketta M (2005) Organizational identification: A meta-analysis. *Journal of Vocational Behavior* 66(2): 358–384.
- Rogelberg SG, DiGiacomo N, Reeve CL, Spitzmüller C, Clark O, Schultz L, Walker A, Gill P and Carter N (2007) What shelters can do about euthanasia-related stress: An examination of recommendations from those on the front line. *Journal of Applied Animal Welfare Science* 10(4): 331–347.
- Rohlf V and Bennett P (2005) Perpetration-induced traumatic stress in persons who euthanize nonhuman animals in surgeries, animal shelters, and laboratories. *Society and Animals* 13(3): 201–219.
- Rollin BE (1986) Euthanasia and moral stress. Loss Grief Care 1(1-2): 115-126.
- Sedikides C and Strube MJ (1997) Self-evaluation: To thine own self be good, to thine own self be sure, to thine own self be true, and to thine own self be better. *Advances in Experimental Social Psychology* 29: 209–269.
- Sheldon KM, Turban DB, Brown KG, Barrick MR and Judge TA (2003) Applying self-determination theory to organizational research. *Research in Personnel and Human Resources Management* 22: 357–393.
- Simpson JA and Rholes WS (1998) Attachment in adulthood. In: Simpson JA and Rholes WS (eds) *Attachment Theory and Close Relationships*. New York: Guilford, 3–24.
- Spreitzer GM (1995) Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of Management Journal* 38: 1442–1465.
- Tajfel H (1982) Social psychology of intergroup relations. Annual Review of Psychology 33: 1–39.
- Thompson WE, Harred JL and Burks BE (2003) Managing the stigma of topless dancing: A decade later. *Deviant Behavior* 24(6): 551–570.
- Trouillet R, Gana K, Lourel M and Fort I (2009) Predictive value of age for coping: The role of self-efficacy, social support satisfaction and perceived stress. *Aging & Mental Health* 13(3): 357–366.

- Watkins ER (2008) Constructive and unconstructive repetitive thought. *Psychological Bulletin* 134(2): 163–206.
- Weick KE (1995) Sensemaking in Organizations. Thousand Oaks, CA: SAGE.
- White DJ and Shawhan R (1996) Emotional responses of animal-shelter workers to euthanasia. *Journal of the American Veterinary Medical Association* 208(6): 846–849.