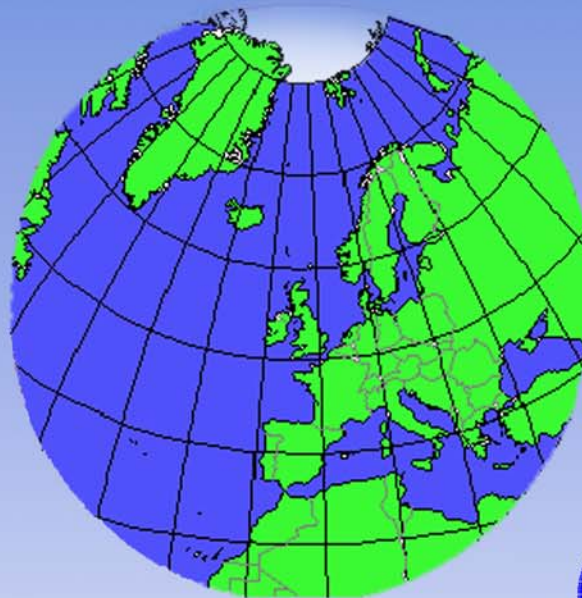


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SPONTANEOUS INTER-ORGANIZATIONAL LEARNING

Arie Halachmi and Amy M. Woron*

ABSTRACT. Spontaneous inter-organizational learning differs from organizational learning in that the latter relies on conflict occurring within the organization prior to action being taken. Inter-organizational learning suggests that organizations have the opportunity to learn from the experiences of others and proactively establish policies and regulations either preventing or lessening the chances that a similar situation will occur in their organization. The description “spontaneous” is proposed to differentiate serendipitous and intentional opportunities for learning. A public federal level case study is presented in support of spontaneous inter-organizational learning.

INTRODUCTION

Fiol and Lyles (1985) noted confusion about the exact meaning of the term “organizational learning”. This bewilderment, they assert, resulted when Herbert Simon (1969) defined organizational learning as individuals’ growing insights and successful restructurings of organizational problems as reflected in structural elements and outcomes of the organization *itself*. This definition focuses on activities that take place within the organization. Fiol and Lyles (1985) further noted that learning consists of the development of

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insights, in addition to structural and other action outcomes, but do not address learning that may cut across organizational lines. What is now labeled as benchmarking and best practices is not part of their discussion. A related problem is many authors', including Williams (2002) and even Argyris and Schön (1978), underlying assumption that organizational learning needs to be studied as an intra-organizational phenomenon taking place by design. In fact, Argyris's (1982) concept of Double Loop Learning is based on an analysis of an inward organizational study.

This article examines spontaneous organizational learning beyond and across the boundaries of the organization: inter-organizational learning without specific intention or planning by the organization or the involved employee. The results of such learning are not different from the mobilization of tacit knowledge that was acquired in other ways. However, the many potential benefits of spontaneous learning behoove organizations to creating the necessary conditions for such learning.

In the following case study, we explore the effects of such an unplanned or unintended inter-organizational learning. The case study methodology applied here includes an analysis of two unrelated cases (Yin, 2003). Following in Yin's (1994) definition of a case study, we are presenting an empirical enquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident. The conclusions drawn here benefit from multiple sources of qualitative and quantitative data analyzed to answer the "why" and "how" this situation occurred. What was perceived as a lax response to a serious situation was in reality an indication of preparedness resulting from spontaneous learning from the experience of a partner organization. This paper asserts that the possible effects of unplanned inter-organizational learning should be considered whenever public policy is being studied. Spontaneous learning and the application of tacit knowledge, we claim, may allow a more realistic description and explanation of the alleged reasons why certain decisions were made. Our goal is to define and establish the presence of spontaneous inter-organizational learning. This is supported by the case study that follows.

This article begins with a brief literature review of learning, organizational learning and finally, inter-organizational learning. It

then further explores a federal-level case study of inter-organizational learning within the realm of food safety, utilizing a qualitative case study review. An in-depth look at legislative activities surrounding the case study is included to frame the case. It concludes with the proposal that spontaneous inter-organizational learning is the serendipitous acquisition of knowledge applied to another organization.

In Search of Organizational Learning Theory

Eraut (2000) describes two kinds of learning: formal knowledge and informal knowledge. Formal knowledge, closer to our notion of deliberate learning, has one or more of the following attributes:

- prescribed learning framework,
- an organized learning event or package,
- a designated teacher or trainer,
- qualification or credit awarded, and
- the external specification of outcomes

This is consistent with writings about formal organizational learning that advocate employees' training and development as means for improving organizational performance in general, and planned change in particular (Farkas and Stocker, 2006). According to Eraut (2000) "informal learning is often treated as a residual category to describe any kind of learning which does not take place within, or follow from, a formally organized learning programme or event." Others, like Reber (1989), equate informal learning with some cognitive processes involved in developing tacit knowledge or memories.

Recent writings about the use of "tacit knowledge" in organizations deemphasize the need for pre-planning or deliberate effort to affect organizational learning but not the inward looking and acquired insights due to one's actual experiences at work (Lam, 2000, Sorge and Witteloostuijn, 2004). Tacit knowledge resulting from informal and unplanned learning can greatly impact an organization's ability to address new problems, while avoiding recycling old solutions and encouraging the development of new answers to old problems. Yet, managers and organizations have little guidance in generating or mobilizing this valuable component of

institutional knowledge management. This lacks results in part, as Reber (1989) suggested, from implicit learning's two critical features: (a) It is an unconscious process and (b) it yields abstract knowledge. Implicit knowledge, Reber (1989) argues, results from induction of an abstract representation of the structure displayed by the stimulus environment, and is acquired in the absence of conscious, reflective learning. But how this knowledge is being mobilized? What triggers its application to address a present or expected policy decision?

Seminal works on organizational learning include knowledge as an organizational resource (Polanyi, 1958), general theory of organizational learning (Cyert & March, 1963; Simon, 1969), learning cycle (Kolb & Fry, 1975), theory of action (Argyris & Schön, 1978), tacit knowledge (Nelson & Winter, 1982), process improvements (Fiol & Lyles, 1985), organizations as systems (Senge, 1990) and tacit and explicit knowledge (Nonaka, 1994). While the literature on organizational learning has tended to focus on learning internal to a single private organization, public sector organizations would benefit from increased research on inter-organizational learning.

As Argyris (1980) pointed out, organizations looking inward tend to "sugarcoat" or "ease in" information about threats, a product of our society's effort to "be civilized." Critically analyzing the actions of other organizations could provide the foundation for inter-organizational learning, as it is easier and more socially acceptable to find fault in others. If it is easier to say that organization "B" made a mistake and did "X" about it, the observing organization "A" may be more willing to discuss implementing "X" to prevent the mistake from happening to "A." On Argyris's account (1980), individuals may be incapable of learning enough from themselves to change their behavior. Argyris (1982) implies that the most effective learning must come from experience, either one's own, or those of another.

Fiol and Lyles (1985) defined organizational learning as the process of improving actions through better knowledge and understanding, which corresponds to the logic of Taylor's (1911) writings, though not to the spirit, of his principals of scientific management. Huber (1991) divided the literature on organizational learning into four categories: (1) knowledge acquisition, (2) information distribution, (3) information interpretation, and (4) organizational memory. Huber described the literature (up to 1991) on knowledge acquisition and information distribution as substantial,

while that concerning information interpretation and organizational memory remained in need of study. Bate and Robert reported in 2002 that knowledge transfer “*between* and *amongst*” (emphasis in original) organizations remained in need of study. Lipshitz et al. (1996) defined organizational learning as “the process through which organization members develop shared values and knowledge based on past experience of themselves and of others.” Since this includes “others” as a source of knowledge, it is also relevant to inter-organizational learning. Lipshitz et al. acknowledged a surge in publications focusing on organizational learning, but noted a gap in explaining practitioner-level application. Their work attempted to fill that void by offering an account of their experience in building a learning organization in the public sector.

Inter-organizational learning can be initiated from the knowledge contained in a policy, but according to Hartley and Allison (2002), tacit knowledge may be a significant factor. Their position stressed human-interaction in ensuring that all the nuances of an explicit knowledge document are properly communicated and understood. This work addresses both concerns via an interaction of both organizations during policy making.

Hartley (2008) stated that good ideas and practices need to be transferred between services and levels of government to improve public services in general. Hartley and Allison (2002) and Rashman and Radnor (2005) agree that comparison with comparable organizations within the public sector is an important element of inter-organizational learning. Of noted importance is the impact of inter-organizational learning in public health services (Bate & Robert, 2002; Nicolini et al., 2008; Nutley & Davies, 2001). According to Rashman et al. (2009), little work has been done on how public service organizations create, transfer, share, and apply knowledge.

Inkpen (2002) suggested a very pertinent question in the study of inter-organizational learning: Are organizations learning with or from each other? Rashman et al. (2009) classified inter-organizational relationships as either (1) strategic alliances, (2) teacher and learner networks (organization and partners), (3) consultant and a network of organizations, or (4) public sector partners. Hartley and Rashman (2007) created a model consisting of four key factors: (1) the environmental context, (2) source, (3) recipient, and (4) relationship.

Their two-way model of information sharing is consistent with Cross and Sproull (2004). The “source” organization originates the knowledge whereas the “recipient” receives the knowledge. Bi-directionality allows the recipient to become the source. Organizations that mutually learn from each other tend to create a strong information-sharing relationship. The types of relationships between organizations in inter-organizational learning situations range from personal interactions of individuals to formal networks of multiple individuals at the organizational level. Networks with superior levels of involvement from both the source and recipient are supportive of organizational learning (Chen, 2004; Inkpen, 1996; Rashman & Hartley, 2002; and Scott, 2000). Janis and Mann (1977) challenge this view, warning that “groupthink” can result when highly consensual networks fail to challenge the status quo, therefore halting the learning process.

Rashman et al. (2009) noted that the low level of competition between public sector organizations may assist in the creation of strong networks and organizational learning, while the variety of structures and cultures of public organizations may impede the formation of positive relationships between organizations. Downe et al. (2004) identified barriers to inter-organizational learning: personal and organizational workload pressures, financial constraints, and the transferability of information to the recipient organization.

Greve (2005) proposes the model of Heterogeneous Interorganizational Learning involving infectiousness, social proximity and susceptibility. The main points are that the source/donor organization must have something available to offer (be infectious), the social structure must be conducive to information transference and the destination/recipient organization must be able and willing to accept the offering (susceptible). While Greve (2005) proposes a linear filtering mechanism for inter-organizational learning, these authors agree with the concept in a different light. Rather than filter the learning, this concept could be viewed as a learning version of the epidemiologic triangle, with all parts having an equal say in the learning process rather than a hierarchical one. The epidemiologic triangle uses the terms agent, environment and host to describe the transfer of an infectious disease. In infectious disease epidemiology, the agent would be the source/donor containing the property of being infectious. The environment, or social structure, provides the setting

for transmission through social proximity. The host, or destination/recipient, must possess the property of being able to receive, or to be susceptible. In this way, our proposal of spontaneous inter-organizational learning is again referring to intent. When all of the conditions are appropriate for the transfer of knowledge, the “how” question is one of intent to learn versus spontaneous learning.

Despite uncertainty about the ease of creating inter-organizational learning, these authors accept it as an organizational phenomena and the case study that follows will explore the application in a federal setting.

METHODS

This paper employed a comparative analysis of two unrelated cases to examine whether inter-organizational learning occurred. Administrative actions and congressional documents provide a fact-based record of the actions of both agencies. Both cases are federal level responses to multi-state foodborne outbreaks by different federal agencies. Data sources include 18 years of data from Centers for Disease Control and Prevention (CDC) OutBreak Net (1990 – 2007), budget and personnel information for each agency, and Senate and House hearings listed in General Accounting Office (GAO) reports with the key phrase *E. coli* O157:H7. Publication numbers referencing “food safety” and “*E. coli*” from the Lexis Nexis database were also reviewed to yield clues about the policies saliency (Jones and Baumgartner, 2005). Evidence of collaboration was presented by the Food Safety and Inspection Service (FSIS) and the Food and Drug Administration (FDA) joint programs aimed at improving food safety. A content analysis was performed on 28 FSIS Food Safety Policies and 6 FDA food safety policies meeting the inclusion criteria, discussed in data collection and processing. The legislative review provides the backbone timeline for the application of the surrounding supportive evidence for spontaneous inter-organizational learning.

Identifying the Cases

Two foodborne outbreak cases were evaluated for evidence of spontaneous inter-organizational learning at the federal level. The FSIS and the FDA are charged with reducing instances of foodborne

illnesses within their areas of jurisdiction. The FSIS response to a 1993 multi-state outbreak of *E. coli* O157:H7 involved numerous partners, including FDA. The 1993 outbreak was the largest of its kind to date and first recognized multi-state outbreak of ground beef. The outbreak resulted in over 700 illnesses, 171 hospitalizations and the death of four children. This incident resulted in sweeping policy changes for the Food Safety and Inspection Service unit of the United States Department of Agriculture.

In 2006, FDA experienced a comparable outbreak of *E. coli* O157:H7 within its jurisdiction. The 2006 spinach outbreak was the largest of its kind to date for FDA. The outbreak resulted in 205 illnesses, 103 hospitalizations and three deaths. The FDA's subsequent policy response did not mimic the FSIS response. Further investigation showed that FDA had revised its food safety policy substantially following the 1993 FSIS situation and prior to its own comparable outbreak in 2006. Did the FSIS policy-shaping outbreak of 1993 affect policy in the FDA organization? Was this situation an example or evidence for spontaneous inter-organizational learning?

Foodborne illnesses are inevitable (GAO/OGC-96-31, 1996). The Healthy People 2010 initiative set an acceptable level of *E. coli* O157:H7 infection incidence at a rate of one per 100,000 persons. As of 2008, surveillance data from 10 national FoodNet sites shows an incidence rate of 1.12 per 100,000 persons (FoodNet 2009). These data also indicate a strong age-association, with all of the groups age 19 and below exhibiting *E. coli* O157:H7 infections at a rate above the Healthy People 2010 initiative. So, while the act of eating is an inherently risky behavior, the goal of both FSIS and FDA is to minimize the incidence of infection.

History of the Organizational Policies

In order to use the 1993 Jack in the Box ground beef outbreak and the 2006 Natural Selection Foods spinach outbreak as cases for this study, food safety for both matrices (ground beef and leafy greens) must be comparable. A food matrix refers to the differing food commodities such as ground beef and spinach. Food safety literature has grouped food poisoning as home prepared or food prepared by others, regardless of matrix (Frewer et al., 1993). Large scale health risks are associated with the process of preparation

(home or by others), not by the matrix (ground beef or leafy green). Second, according to CDC outbreak surveillance, there is no statistically significant difference between the mean number of *E. coli* O157:H7 foodborne outbreak illnesses caused by ground beef ($M = 25.8$, $s = 87.2$) and those caused by leafy greens ($M = 31.9$, $s = 38.5$), $t_{(114)} = 0.389$, $p = 0.698$, $\alpha = 0.05$ (CDC, 2011) Lastly, the outbreak cases being compared are of a comparable scope (multistate), morbidity (illnesses in the hundreds), and mortality with case fatality rates of (0.5% and 1.5% for the Jack in the Box and Natural Selection Foods, respectively).

The 1993 multistate *E. coli* O157:H7 outbreak from contaminated and undercooked hamburger has been labeled the historic outbreak responsible for public outcry demanding safer meat products (FSIS, 2012). FSIS implemented the Pathogen Reduction/Hazard Analysis and Critical Control Point (HACCP) system to ensure meat and poultry safety (61 FR 38806, 1996). This philosophy changed a passive inspection system based on organoleptic (sight, smell and touch) methods into a science-based active one (61 FR 38806, 1996). For the first time a pathogen, *E. coli* O157:H7, was specifically labeled as an “adulterant” of raw ground beef in October 1994 (Taylor, 1994). The implications of this include mandatory recall of any lot of meat identified as containing the pathogen.

With the HACCP plan in place, the responsibility for the production of safe food was now in the hands of industry, with the oversight by FSIS. Industry is responsible for identifying gaps in inspection regimes and potential sources of contamination, and creating a plan to reduce risk (61 FR 38806, 1996). FSIS sets the safety standards, and the inspection focus has shifted to ensuring that industry is meeting the new standards, implementing HACCP, and reviewing it on an annual basis. Full implementation of the HACCP rule for the meat and poultry industries was completed in January 2000 (FSIS, 2012).

FDA and FSIS, A Current View

A September 2009 GAO report on food safety (GAO, 2009) describes a fragmented system causing “... inconsistent oversight, ineffective coordination, and inefficient use of resources.” (GAO, 2009). The report also acknowledges successful collaboration when the following conditions are met: joint strategies to achieve goals and

written procedures and policies for working together across agency lines (GAO, 2009).

The Case Study

A comparative qualitative analysis was selected for the study of the difference in performance of two federal agencies when faced with a similar issue namely, food poisoning by *E. coli* O157:H7. A case study analysis of food safety policy was selected because it may extend our knowledge of how agencies exhibit spontaneous inter-organizational learning. It is argued that FDA, although not directly affected by the Jack in the Box outbreak, learned from FSIS's response to the incident and took the opportunity to revise its own policies in an effort to reduce the likelihood of such an instance in their jurisdiction. The 2006 Natural Selection Foods spinach outbreak had a higher mortality, yet did not appear to result in a regulatory action that resembles the actions of FSIS. This study examines the possibility that FDA had already initiated policy related action to reduce the instance of *E. coli* O157:H7 contamination in fresh-cut leafy greens in advance of the 2006 outbreak as a result of spontaneous inter-organizational learning.

As a result of the Jack in the Box outbreak, both FSIS and FDA initiated policies addressed to three main food safety themes applicable to both the ground beef and produce industries: pathogen reduction, "traceback" and radiation. Pathogen reduction, in this context, refers to good manufacturing practices, good agricultural practices, hazard analysis, and a general science-based process control system for food safety. "Traceback" describes the ability to determine a product's origin through such identifiers as lot numbers and production codes. Radiation signifies the safe application of ionizing radiation for the control of food borne pathogens and to increase product shelf life.

Research Question

This study uses a comparative analysis of two unrelated cases to examine if inter-organizational learning occurred, and how this is supported by the transfer of knowledge from one organization to the other. This approach is suitable for studying the proposed hypothesis that spontaneous inter-organizational learning is the serendipitous acquisition of knowledge applied to another organization because it

relates to the question of “How” phenomena occurred; there is a lack of control for a series of behavioral events and the questions are focused on contemporary events (Yin, 2003). The methodological approach is qualitative analysis including development of a matrix for categorizing policy based on language and context. The matrix ranked policy on a 1-5 scale with a low ranking representing suggestions and policies of increased scope only and a high ranking representing fundamental change and immediate implementation. Matrix available upon request. The authors’ definitions used for data collection and analyses are:

- *Organizational learning* - the use of knowledge through experience to advance learning and shape behaviors.
- *Inter-organizational learning* - The use of knowledge through the experience of another organization to advance learning and shape the behavior of the recipient organization.
- *Spontaneous learning* - the serendipitous acquisition of knowledge subsequently applied by the recipient organization.

The research question follows.

What explains the differences between the two different courses of action taken by the two agencies’ policies? If no learning took place then what accounts for the difference between the agencies? If learning did take place then how did FDA exhibit signs of inter-organizational learning from the FSIS 1993 E. coli O157:H7 Jack in the Box outbreak, resulting in policy changes prior to the comparable FDA outbreak in 2006?

Data Collection and Processing

The following criteria were used to determine the inclusion of a policy or document for this study:

1. *Policy must reference E. coli O157:H7.* The scope of this study is limited to the single pathogen, *E. coli* O157:H7.
2. *Policy must apply to ground beef or leafy greens.* The scope of this study is limited to the products involved in the Jack in the Box and Natural Selection Foods outbreaks: ground beef and leafy greens, respectively. The Natural Selection Foods outbreak was limited to spinach, but from a documentation standpoint, all

policies referencing spinach are combined with other leafy vegetables and collectively called leafy greens.

3. *Policy must apply to the production or producer of ground beef or leafy greens.* Policies referencing proper handling of ground beef or leafy greens by a retail establishment or consumer are beyond the scope of this study.
4. *Policy must address traceback, radiation, or pathogen reduction.* The central theme of the policy must be theoretically applicable to the production of ground beef or leafy greens.

Data collection began by reviewing both the FSIS and FDA websites for food safety policy information. Both sites contained a timeline of events in reference to major food safety issues. All policies referenced in the agency websites were examined for the study criteria. The policies were also used as a source for references to other related policies. This circular process continued until no new policies were identified. Once all direct reference sources were exhausted, the Federal Register (GPO, 2010) and Congressional Hearings (GPO, 2010) websites were utilized to identify any policies not already found. Policies were reviewed for inclusion per the remaining criteria. Of the 46 total policies that were acceptable for further review, 28 met all criteria for evaluation. This phase is limited to FDA and FSIS policies; GAO reports and Congressional hearings were analyzed separately. Unique identifiers were assigned either a GB for ground beef or LG for a leafy green policy, then sequential numbering within each group in chronological order.

With the central themes defined, policies were thoroughly examined for language referencing each theme. Phrases characterizing the impact of the policy were ranked from 0-5 with 0 being not applicable, 1 lowest impact through 5 for the highest impact, representing the type of policy levels the agencies themselves typically use. Low ranking policies (1) represent suggestions and policies of increased scope only whereas a high ranking policy (5) represents fundamental change and immediate implementation. The phrases were taken directly from the federal register entries and recurred throughout multiple policies, and common language made grouping the policies by impact possible. The phrases were ordered in terms of impact on producers' activities. For the theme of participation by another agency (FSIS or FDA), a "0" signifies no

participation and a “1” that the other agency was involved in the policymaking, through authorship or stated consultation.

RESULTS

Inter-Organizational Learning

Federal legislation in food safety up to 1990 is described as “evolve(ing) piecemeal over many decades to address particular risks to public health” (GAO/RCED-91-19A, 1990). This reactionary approach to regulating food safety was addressed in the June 1992 GAO report, noting the need for a uniform risk-based inspection system (GAO/RCED-92-152, 1992).

The 1990 report also identified 51 different interagency agreements involving the six major agencies. The three interagency agreements involving FDA and FSIS address (1) the coordination of federal regulatory activities concerning residual contaminants that may adulterate food, (2) the inspection of food manufacturing facilities under the jurisdiction of both FDA and FSIS, and (3) the recall of meat/poultry products prepared in an FSIS-inspected establishment that contains food ingredients recalled by FDA (GAO/RCED-91-19A, 1990). Although the 1990 GAO report described federal interagency coordination as “extensive”, the 1992 GAO report noted that “food safety agencies do not effectively coordinate efforts” and recommended that agencies “improve interagency coordination” (GAO/RCED-92-152, 1992). A December 1992 GAO report titled ‘Food and Agriculture Issues’ also noted “poor interagency coordination” (GAO/OCG-93-15TR, 1992). While the June 1992 GAO report acknowledges interagency agreements, it notes that FDA did not investigate 80 percent interagency referrals for study of food safety problems from 1989 through 1990 (GAO/RCED-92-152, 1992). Coordination on paper but not in practice identifies a gap between intent and implementation at that time.

A June 1992 GAO report, ‘Food Safety and Quality: Uniform, risk-based inspection system needed to ensure safe food supply’, reviewed the effectiveness of the food safety inspection system. The report noted “Inconsistencies and illogical differences between the agencies’ approaches and enforcement authorities undercut(ing) the system’s effectiveness” (GAO/RCED-92-152, 1992). The report suggested basing inspection frequencies on risk, beginning the

HACCP mentality (science based risk analysis) for food safety. GAO also recommended that Congress hold oversight hearings with the intent of revamping the food safety and quality system (GAO/RCED-92-152, 1992).

Congressional Hearings

Congressional hearings were reviewed for evidence of *E. coli* O157:H7 food safety testimony as well as joint testimony of FSIS and FDA. The U.S. Government Printing Office online database was searched for congressional hearings using GPO Access and the key phrase “*E. coli* O157:H7” from 1995 – January 2010 (GPO, 2010). House hearings only were searchable in 1995. Both the Senate and the House hearings were available through the GPO website for subsequent years (GPO, 2010). The number of hearings addressing *E. coli* O157:H7 increased after the 2006 Natural Selection Foods spinach outbreak, with a notable increase in joint participation from FDA and USDA agencies, including FSIS, Agricultural Research Service (ARS), Animal and Plant Health Inspection Service (APHIS), and Agricultural Marketing Service (AMS).

Policy Impacts

Policies were selected for inclusion in the impact table based on meeting the inclusion criteria discussed earlier. Each document has a life cycle consisting of a briefing, draft, request for comments and a final rule or some slight variant. Documents were examined at the final rule stage, or most current edition. For example, for the FSIS traceback data, the briefing (GB2), draft (GB6), request for comments (GB7) and final rule (GB8) all measured the same central themes, so only the final rule (GB8) was included.

The central themes that were identified were further arranged into four groups, designated (1) OV (overview), if the policy affected the regulatory role of the agency; (2) PR (pathogen reduction), if the policy targeted detection or hazard reduction of *E. coli* O157:H7 contamination; (3) RAD (radiation), if the policy reduced contamination through radiation; and (4) TRB (traceback), if the policy addressed determination of the products’ source. The group “All”, assessed for all policies, refers to participation by another agency (FSIS or FDA). A “0” was assigned for no participation, and a “1” was assigned if the other agency was involved in the policymaking.

The strongest policy impact level rating of (5) was encountered frequently in policy GB5, or the Pathogen Reduction: Hazard Analysis and Critical Control Point Systems on July 25, 1996, which also involved FDA, providing an opportunity for formal inter-organizational learning. The co-authorship provided the correct environment, or social structure according to Greve (2005) for inter-organizational learning to occur. Although FDA implemented similar policies later, the policy level never reached the impact rating of a 5, since FDA lacks the regulatory authority to set standards for industry at this time. Data available upon request.

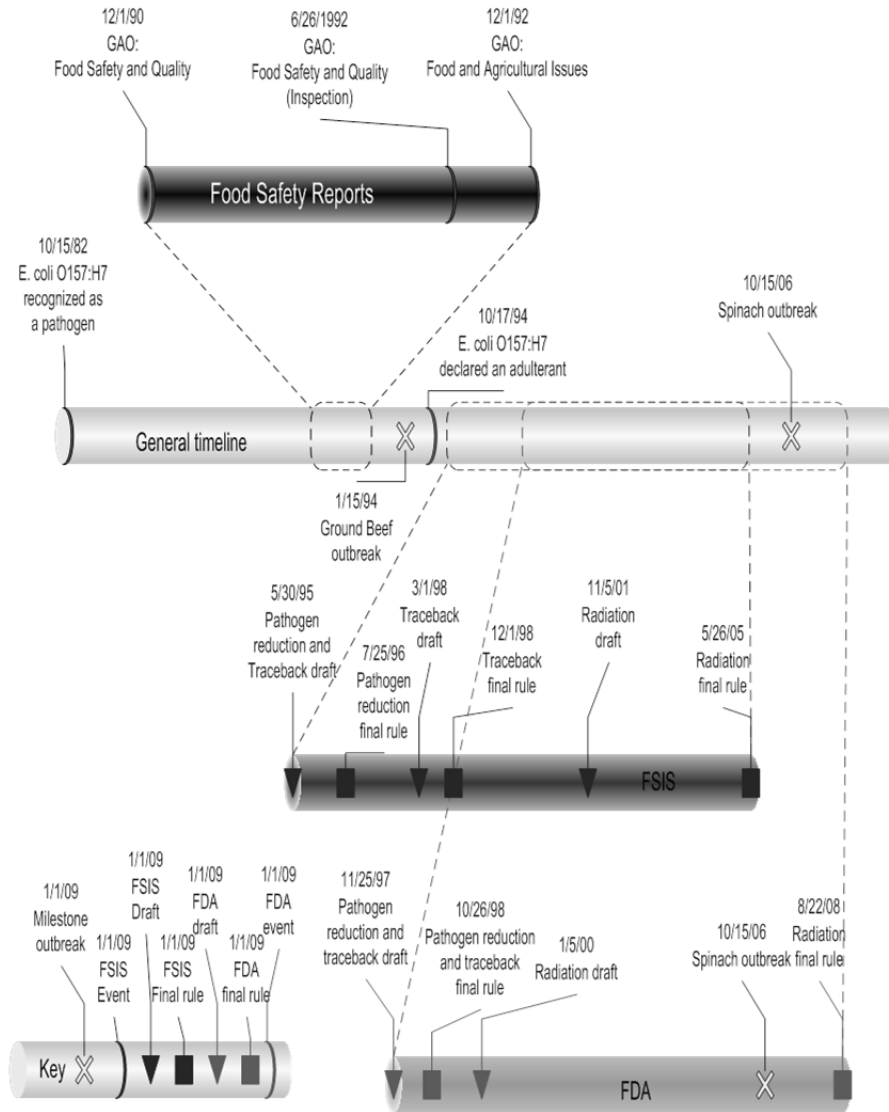
Figure 1 illustrates the timeline of *E. coli* O157:H7 major policy landmarks from the first recognition of it as a human pathogen through 2009. The third bar down with markings indicate an FSIS policy, the bottom bar and markings indicate an FDA policy and the top bar represents the GAO food safety reports of 1990 – 1992.

The pathogen reduction policy timeline begins with the FSIS response to the 1993 Jack in the Box ground beef outbreak, from an FSIS briefing report on February 5, 1995 to the HACCP final rule on July 25, 1996. The 1996 HACCP final rule was authored by both FSIS and FDA, and had the highest impact rating, 5. The FDA's co-authorship of this final rule, prior to initiating its own draft guidance document in 1997 and years before the leafy green outbreak in 2006, is consistent with the occurrence of inter-organizational learning in this case. FDA and FSIS also co-authored the pathogen reduction in produce final rule (LG3) and the action plan for fresh cut fruits and vegetables (LG7). All co-authored policy actions preceded the 2006 spinach outbreak. FDA putting into place a major pathogen reduction policy in conjunction with FSIS prior to a major outbreak event supports inter-organizational learning on the part of FDA.

Evidence supporting inter-organizational learning for traceback policy at FDA is less obvious. The FDA traceback draft, request for comments, and final rule all preceded FSIS by days up to a few months; however FSIS held a briefing on traceback on May 30, 1995, prior to all other traceback policy activity. Both FSIS and FDA addressed similar issues and needs related to traceback, which had been identified by the FSIS briefing in 1995. FDA and FSIS co-authored the FDA final rule in 1998 (LG3); however this neither supports nor refutes inter-organizational learning as *initiating* an FDA traceback policy.

FIGURE 1
***E. coli* O157:H7 Food Safety Policy in Perspective**

Policy Timeline



Radiation policy for ground beef was proposed in 1995 by FSIS. The FDA draft in 2000 followed the FSIS briefing on radiation in 1999. FDA and FSIS co-authored the FSIS final rule on radiation in 2005. The FDA rule on radiation of leafy greens was finalized on August 22, 2008. As with traceback, FDA did not have official co-authorship with FSIS on a radiation policy until after initiation of their draft policy; however the FDA draft addresses issues brought up by the FSIS proposed rule and briefing prior to the FDA draft, evidence of the less formal nature of this incidence of inter-organizational learning.

For each of the grouped central themes, FDA exhibited a response after FSIS initiated a food safety policy on the same theme, which responses were initiated prior to the seminal 2006 Natural Selection Foods spinach outbreak. The timeline of events supports inter-organizational learning.

Evidence of Collaboration between USDA/FSIS and HHS/FDA

As a direct result of the Jack-In-The-Box outbreak, then Administrator of the Food Safety and Inspection Service, Michael Taylor, announced *E. coli* O157:H7 as an adulterant of meat (Taylor, 1994). Also in 1994 *E. coli* O157:H7 became a nationally notifiable disease.

In 1995 CDC, launched FoodNet, a collaborative project of FDA and USDA for active food surveillance (Rawson & Vogt, 1998). FoodNet, a component of the CDC's Emerging Infections Program, "consists of active surveillance for foodborne diseases and related epidemiologic studies designed to help public health officials better understand the epidemiology of foodborne diseases in the United States" (CDC FoodNet, 2012). This offers a clear mechanism for formal inter-organizational learning.

PulseNet was launched in 1996 in response to the 1993 *E. coli* O157:H7 multi-state outbreak. "PulseNet is a national network of public health and food regulatory agency laboratories coordinated by the Centers for Disease Control and Prevention (CDC). The network consists of: state health departments, local health departments, and federal agencies (CDC, USDA/FSIS, FDA)" (Schwetz, 2001).

The National Antimicrobial Resistance Monitoring System (NARMS) for Enteric Bacteria, also established in 1996, is a joint

project of the CDC, FDA, and the Department of Agriculture (CDC NARMS, 2012)).

In 1999, The Department of Health and Human Services and USDA created the Joint Institute for Food Safety Research (JIFSR), which “coordinates planning and priority-setting for food safety research across government agencies and with the private sector.” (FDA, 1999). Each of these networks increases the likelihood of formal inter-organizational learning.

DISCUSSION

GAO reports and food safety legislation up to 1993 reveal that in the early 1990’s food safety was a growing issue of discussion at the federal level. The 1990 GAO report describing federal food safety legislation as reactionary held true for the 1993 Jack in the Box outbreak, but not for the 2006 Natural Selection Foods spinach outbreak. Viewing legislation impacting both industry areas on a timeline compared to the outbreak dates demonstrates that, for the 2006 spinach outbreak, legislation comparable to the FSIS reaction to the 1993 ground beef outbreak was already enacted or in progress.

Congressional hearings with the key phrase *E. coli* O157:H7 did not spike until after the 2006 Natural Selection Foods spinach outbreak. No outbreak of sufficient impact to be cited in Congressional Hearings would again occur until the 2006 Natural Selection Foods outbreak, meaning some other factor initiated policy change between 1993 and 2006. The 106th Congressional Senate hearing titled “How should our food safety system address microbial contamination” heard testimony by representatives from both USDA and FDA, offering the FDA exposure to the position of FSIS.

The policy impact reflects both the intensity of a particular regulation or guidance and the respective power of each agency, as well as the freedoms left to industry. FSIS and FDA achieved the same policy impact level for the central themes of radiation and traceback, three and four, respectively. For pathogen reduction, FSIS achieved an impact level of five; whereas FDA’s highest impact level was a four. However, FSISs has regulatory authority in the meat industry, while, at the time of this writing, FDA could only provide recommendations and guidance documents to industry.

Policy timelines provide the greatest insight into the logical reasoning of time order. As it has been established that the 1993 ground beef and 2006 spinach outbreaks were the seminal outbreaks for each agency, produce related policy changes made by FDA prior to the 2006 spinach outbreak reflect a proactive agenda. There is evidence of collaboration and networking, mechanisms for FDA and FSIS to share ideas, in food safety initiatives and surveillance systems, prior to the 2006 Natural Selection Foods spinach outbreak.

Former President Bill Clinton's Food Safety Initiative, offered in a radio address on January 25, 1997, supported the national early warning system for outbreaks of foodborne illness and prompted a national education campaign to improve food handling in homes and retail outlets. The priorities set by Clinton included:

Strengthen coordination and improve efficiency: USDA, CDC, FDA and EPA will form a new intergovernmental group to improve federal, state and local responses to outbreaks of foodborne illnesses. Working with all stakeholders, the agencies will develop a strategic plan to further improve coordination, use resources more efficiently, and measure progress toward our common goal of reducing foodborne illness (Clinton, 1997).

This resulted in a more collaborative effort between the existing programs, FoodNet (initiated 1995), PulseNet (initiated 1996) and NARMS (initiated 1996). Additionally, the Joint Institute for Food Safety Research was established in 1999, a combined effort by HHS and USDA. All of these collaborative efforts, in the perspective of legislative timing, support the influence of FSIS policy on FDA legislation.

It is necessary to consider what else could have had an effect on FDA food safety policy? Congressional mandate could have driven policy choices, but that was not indicated within the gathered data. Likewise, there is no evidence in the data of similar policies emerging from a third organization, which may or may not have also influenced FSIS.

Given the level of collaboration, could FDA have given FSIS the idea for a pathogen reduction, traceback and radiation policy rather than the other way around? This is unlikely, as the collaborative food

safety programs (FoodNet, PulseNet, NARMS and JIFSR) were all initiated after the first briefing or proposed rule for each central theme. The first collaborative testimony at a Congressional hearing addressing *E. coli* O157:H7 was in 2000, well after the initiation (and final rule for two) of the central themes' legislation. As for legislative policy, FDA did co-author the FSIS final rule for pathogen reduction and radiation; however FDA was not a co-author on any FSIS Federal Registry document leading up to the final rule for either. FDA had no co-authorship with FSIS on the FSIS traceback policy.

This article argues that FDA's leafy green food safety policies were influenced by the FSIS policy response to the 1993 Jack in the Box outbreak. The evidence supporting this is based in the logic of time (temporal association of policies) and space (opportunity for FDA and FSIS to interact). The three strongest supporting arguments are: (1) The timeline data establishing that FSIS initiated policy on pathogen reduction, traceback and radiation of ground beef prior to FDA initiating similar policy for leafy greens; (2) Evidence of collaboration between FSIS and FDA prior to FDA initiating leafy green policy; (3) Similar policy impact ratings for each of the central themes.

The time and space factor is evidenced by the sequence of events and collaboration of both agencies providing a means to allow the exchange of ideas for the same goal of food safety. The policy impact ratings of three for radiation and four for traceback for both agencies indicate a similar desired level of impact on industry from FSIS and FDA. The discrepancy for pathogen reduction (five for FSIS and four for FDA) likely results from the regulatory authority difference between the agencies, and each did achieve its highest possible impact score for pathogen reduction.

Now that it has been established that FSIS policy influenced subsequent FDA policies to the exclusion of independent pathways, we must consider whether the mechanism by which FSIS policy influenced subsequent FDA policy was consistent with inter-organizational learning.

We define "organizational learning" as the *extraction of knowledge from experience to advance understanding and shape subsequent behaviors*. When expanded to inter-organizational learning it is: *The extraction of knowledge by one organization from the experience of another organization to advance its own*

understanding and shape its subsequent behavior. In both cases, the term “extraction” suggests a deliberate effort to generate learning. However, what emerges from our case study is that important learning can take place and shape subsequent behavior without prior planning.

In our case study, both FSIS and the FDA, the sites of inter-organizational learning, are defined by their respective organizational cultures, which cultures developed independently of each other. However, it is likely that they have been at least somewhat influenced by their shared mission, food safety. Over the years, the agencies became highly collaborative due to the sharing of testimonies during various Congressional hearings, co-sponsorship or mutual support of regulatory policy, and food safety surveillance and research (FoodNet, PulseNet, NARMS and JIFSR). Without an ongoing record of professional rivalry it is not unreasonable to assume that informal exchanges of information, ideas and interactions kept professionals in one agency abreast of the other’s developing policy.

The case study presented fits the spirit of Greve (2005) and the flavor of the Hartley and Rashman (2007) model for inter-organizational learning. In this case, the source organization (USDA) unintentionally assisted the recipient organization (FDA) through an environment conducive to learning. As recently as Fall 2009, FDA published Produce Safety Regulations (FDA, 2009) stating that “The proposed rule will ... incorporate what we have learned in the past decade ...” This supports an organizational culture at FDA that is willing to learn from past experiences.

In summary, the difference in the FSIS and FDA’s courses of action in response to their respective seminal outbreaks is explained by FDA’s inter-organizational and spontaneous learning from FSIS’s policy response to the 1993 Jack-in-the-Box ground beef outbreak. We use the term “spontaneous” because the FDA extracted knowledge that shaped its subsequent behavior without resorting to any official or organized effort to derive lessons from the experience of FSIS.

The Proposal: Spontaneous inter-organizational learning

While these cases described a situation of inter-organizational learning, something is lacking within the description regarding the manner in which the learning took place. The FDA was an active

participant in hearings and policy making during the FSIS response to the 1993 outbreak. The knowledge FDA gained in this process appears to have influenced its foodborne illness prevention strategies. Here we see a division in learning. Since the FDA was not actively seeking answers to their own foodborne illness prevention strategy during the learning phase, the process can be described as spontaneous inter-organizational learning, unlike situations where a network is established or consulted purposefully. Addressed a different way, the FSIS response can be classified as reactive to the 1993 *E. coli* O157:H7 outbreak. The FDA actions can be classified as proactive, a result of their spontaneous inter-organizational learning.

Spontaneous inter-organizational learning is the serendipitous acquisition of knowledge subsequently applied by the recipient organization. It is important to recognize the source, or inspiration, for knowledge, as well as utilizing the knowledge in an organization. Planned or intentional inter-organizational learning is equally, if not more, valuable to a recipient organization. When a recipient organization intentionally seeks out assistance there may be a greater chance that the knowledge gained is relevant to the situation at hand; however spontaneous inter-organizational learning may lead to innovative solutions.

Gell-Mann (1994) tells us that complexity can lead to simplicity. In this way, setting the stage for spontaneous inter-organizational learning occurred starting with a history of USDA and FDA interaction. The USDA 1993 outbreak can be considered a version of a Gell-Mann's random mutation. This resulted in an environment ripe for the serendipitous acquisition of knowledge by FDA. In this way the competitive selection, as Gell-Mann would state, that followed was beneficial by FDA likely preventing additional outbreaks with the regulations it imposed prior to their 2006 outbreak.

Limitations

The limitations of this study include proposing a learning mechanism with only one set of cases to support it. While the case study methodology was appropriate for this research and has a foundation in the literature as valid, further work would support the robustness of the model. A frequent criticism of case studies is the inability to achieve a generalizing conclusion. Yin (1993) argues that

the size of the sample whether 1 or 100, could be considered acceptable, as long as it meets the stated objective.

CONCLUSION

The reported study has implications for both practice and future research. The most salient finding is that spontaneous inter-organizational learning occurs and influences decision making, whether we recognize it or not. For practitioners a better understanding of the learning process, and how to create an environment conducive to it, can be invaluable. For academicians, acknowledging the difference between spontaneous and planned inter-organizational learning implies a clear need to further study the nature and limits of this process. Benchmarking can be described as planned inter-organizational learning, as the actions are intentional. Spontaneous inter-organizational learning differs in the lack of intent. If subsequent research would find that unplanned inter-organizational learning has high likelihood to foster better outcome for the recipient organization, then efforts to encourage it should be done in a more systematic fashion. For example, organizations should do more to facilitate an organizational culture that is conducive to spontaneous inter-organizational learning. Encouraging employees to read news digests like GovManagement Daily that is published by the American Society of Public Administration (ASPA) is a case in point. If, however, spontaneous inter-organizational learning can be beneficial in some cases but misleading in others, research should highlight the likely conditions for each case. By the same token, future research should identify possible strategies for early detection and corrective action when spontaneous learning and mobilization of tacit knowledge can lead the organization astray.

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**THE MODERATING ROLE OF SUPPORT SEEKING VERSUS PERCEIVED
SOCIAL SUPPORT IN THE RELATIONSHIP BETWEEN CUSTOMER
AGGRESSION AND JOB OUTCOMES**

Ruhama Goussinsky*

ABSTRACT. Customer aggression constitutes a major source of stress for service providers; however, empirical research regarding the moderating role of coping strategies in the customer aggression–job outcomes relationship is sparse. Two samples of service workers were recruited from northern Israel and data were collected using self-reported questionnaires. Study 1 investigated the moderating impact of support seeking and behavioral disengagement on this relationship. Results show that under conditions of excessively-aggressive behavior, more support seeking was associated with higher levels of emotional exhaustion and turnover intentions. Study 2 indicates that supervisor support moderated the customer aggression–work engagement relationship, such that the detrimental effect of customer aggression on work engagement was observed only among service workers with low levels of supervisor support.

INTRODUCTION

The rapid expansion of the service sector in many countries has made the study of the "dark" side of service jobs, namely, interactions with verbally abusive customers, increasingly important within the area of occupational stress research. Existing research has consistently shown that being a target of frequent hostility from the very people employees are supposed to “serve with a smile” is a major source of stress for service workers, leading to high rates of emotional exhaustion (e.g., Dormann & Zapf, 2004; Evers, Tomic, &

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Brouwers, 2001), job dissatisfaction (Karatepe, 2011; Lim & Yuen, 1998), turnover intentions (Harris & Reynolds, 2003; Karatepe, Yorganci, & Haktanir, 2009), retaliation behaviors (Skarlicki, van Jaarsveld, & Walker, 2008), and withdrawal behaviors (Grandey, Dickter, & Sin., 2004). In fact, customer aggression, which refers to "verbal communications of anger that violate social norms" (Grandey et al., 2004, p. 398) was found to be a strong predictor of burnout, above and beyond other predictors, such as task-related stressors (Dormann & Zapf, 2004) and aggression from coworkers or supervisors (Grandey, Kern, & Frone, 2007).

For some service workers, verbal aggression from customers, including insults, swearing and yelling, is not a rare experience. For example, it was found that the majority of call center employees reported between 7 and 10 encounters with aggressive customers per day (Grandey, et al., 2004) and 74% of flight attendants and railway employees experienced verbal abuse from passengers at least once a month (Boyd, 2002). Frequent interactions with abusive customers are also reported by social workers (Ringstad, 2005) and by frontline employees in the hospitality industry (Harris & Reynolds, 2003; Reynolds & Harris, 2006).

While the vast majority of studies in this field have focused on the consequences associated with customer misbehavior, only a few studies have investigated how employees cope with this particular job stressor (Bailey & McCollough, 2000; Ben-Zur & Yagil, 2005; Reynolds & Harris, 2006; Van Dierendonck & Mevissen, 2002) and little is known about the moderating effects of coping strategies on the relationship between customer verbal aggression and job outcomes. It has long been established that while effective coping can reduce and buffer the negative impact of stressors, failure to cope effectively with workplace stressors can lead to negative physical and psychosocial outcomes (e.g., Folkman, Lazarus, Gruen, & DeLongis, 1986). Therefore, Study 1 was designed to examine the moderating effects of support seeking and avoidance, two commonly used strategies adopted during and after interaction with abusive customers (Bailey & McCollough, 2000; Yagil, 2008) on the customer aggression - emotional exhaustion and turnover intentions relationships.

In addition, given that support seeking has been found to be the most common strategy for dealing with customer misbehavior (Bailey

& McCollough, 2000), it is likely that the *perception* that social support is available when required, is one job resource that might be of special importance for service providers seeking to cope with problems related to customer aggression and their own burnout (Karatepe, 2011). Studies on service workers have demonstrated that social support can reduce the negative effects of some job stressors, such as performance monitoring (Holman, Chissick, & Totterdell, 2002) or the demand to display organizationally-desired emotions toward customers (Yagil, Luria, & Gal, 2008); however, there is limited empirical evidence demonstrating the moderating role of perceived support on the relationship between customer aggression and employee outcomes (Karatepe, 2011). Therefore, the aim of Study 2 was to investigate whether perceived support from supervisor and coworkers would buffer the effects of customer aggression on work engagement.

In sum, despite reports of the grave consequences to service providers and organizations, customer verbal aggression remains a relatively underdeveloped field of enquiry (Fisket al., 2010). The present study seeks to extend research in this domain, by considering the moderating effects of two commonly used coping behaviors and social support on the relationship between customer aggression and turnover intentions, emotional exhaustion and work engagement. Emotional exhaustion refers to feelings of being emotionally drained and depleted of one's resources, and it is considered the key component of job burnout (Lee & Ashforth, 1996; Wright & Cropanzano, 1998). Work engagement refers to a positive work-related state of mind, characterized by feelings of dedication to work, vigor, and immersion in work activities (Schaufeli, Bakker, & Salanova, 2006). Both job outcomes are likely to affect service quality as perceived by consumers. Research has shown that emotional exhaustion has a negative effect, both on the service provider's job performance and on customer satisfaction (Yagil, 2006), while work engagement was found to be a predictor of service climate, which in turn affects customers' perceptions of employee performance and customer loyalty (Salanova, Agut, & Peiro, 2005). Thus, from a practical perspective, a greater understanding of the manner in which coping responses and the perception of social support affect these job outcomes, could contribute to intervention efforts and organizational practices intended to provide the best possible service to customers.

STUDY 1

Coping with Customer Aggression

The concept of coping refers to the cognitive or behavioral efforts exerted to control or reduce demands created in stressful situations (Folkman, 1984). Coping with occupational stressors is similarly defined and reflects the effort, either cognitive or behavioral, to reduce demands that are greater than the individual's resources (Dewe, 2000). According to an early classification introduced by Lazarus and Folkman (1984), a distinction can be drawn between coping with the actual stressor and coping with its psychological and emotional outcomes: strategies focusing on the individual's efforts to reach a solution, such as seeking instrumental assistance or planning courses of action, are known as problem-focused coping strategies, whereas strategies that aim to reduce the resultant negative emotions and discomfort, such as mental or behavioral disengagement from the stressor, denial, venting, or seeking emotional support, are known as emotion-focused coping strategies.

Several studies have shown that in response to customer misbehavior, service providers are more likely to use emotion-focused coping strategies. Ben-Zur and Yagil (2005), for instance, found that disengagement and denial were commonly used strategies. In a study that utilized in-depth interviews, Reynolds and Harris (2006) revealed that employees in the hospitality industry adopted a wide range of tactics intended to cope with incidences of deviant customer behavior, most of which were aimed at reducing the emotional distress associated with or caused by customer misbehavior. These tactics included drug use, ignoring difficult customers, attempts to feign emotion, psychological distancing, efforts to disengage and isolate themselves from both customers and other employees, or, in contrast, talking with their colleagues about the incident. Emotion-focused strategies were also identified in a study by Bailey and McCollough (2000), which was based on both qualitative and quantitative data. Findings demonstrated that while seeking emotional support from other employees was the most common strategy, avoidance/behavioral disengagement strategies (e.g., leaving the location where the service is provided, performing other tasks instead of providing service, slowing down or taking a break) were also frequently reported strategies for coping with difficult customers.

The present research focuses on the moderating effects of two coping behaviors: behavioral disengagement and seeking emotional support. The aim of disengagement or avoidance coping is to escape the threat or its related emotions and involves distancing oneself from the stressful situation (Skinner, Edge, Altman, & Sherwood, 2003). Emotional support-seeking behavior refers to an individual's efforts to reach out for comfort and understanding and, with respect to the present study, includes talking about the difficult customer, sharing experiences, and venting emotions with coworkers (Yagil, 2008). Both disengagement and seeking emotional support are considered emotion-focused coping strategies that aim to reduce the emotional distress associated with a stressful situation (Carver & Connor-Smith, 2010).

The Moderating Impact of Coping

Emotion-focused coping is typically considered less constructive than problem-focused coping, because the emphasis is on dealing with the affect rather than trying to solve the problem. The literature on coping outcomes has generally showed that instead of alleviating the negative outcomes of work stressors, emotion-focused coping strategies predict poorer emotional and psychological outcomes across an array of stressors (Austenfeld & Stanton 2004, Day & Livingstone, 2001; Littleton, Horsley, & Nelson, 2007; Penley, Tomaka, & Wiebe, 2002). However, previous studies provide mixed results regarding the moderating effect of emotion-focused coping strategies: while some studies have shown that these strategies exacerbated the work stressor's negative effect on strain outcomes (Day & Livingstone, 2001; Van Dierendonck & Mevissen 2002; Zhao & Yamaguchi, 2008), others have found that emotion-focused coping operates as a stress-buffering resource. For example, a recent study demonstrated that emotion-focused coping was harmful for family satisfaction, but it also buffered against job dissatisfaction in a high family-to-work conflict (Rantanen, Mauno, Kinnunen, & Rantanen, 2011). Seeking social support has been found to buffer the negative impact of work events (Patterson, 2003) or family conflict (Su, Lee, & Vang, 2005) on symptoms of distress. Several other studies found that emotion-focused strategies did not act as a moderator in the relationship between stressors and job outcomes (e.g., Wickramasinghe, 2010).

With regard to customer service roles, there is evidence that avoidance coping may not be beneficial for dealing with the stressful aspects of service work (Acker, 2010; Anderson, 2000, Chou, LaMontagne, & Hepworth, 1999; Pienaar & Willemse, 2008), including customer aggression (Ben-Zur & Yagil, 2005; Van Dierendonck & Mevissen 2002). There is less clarity, however, regarding the role of support seeking in helping employees cope with the stress generated by customer abuse. Yagil (2008) argued that this strategy may provide a more effective source for employees coping with customer misbehaviors, because sharing experiences with coworkers should reinforce the recognition that it is a common problem and thus it can help relieve stress. No empirical study, however, has examined whether support seeking reduces the negative effects of customer aggression. Study 1 seeks to explore the potential moderating effect of support seeking and behavioral disengagement on the customer aggression – emotional exhaustion and turnover intentions relationships. Given the mixed results concerning the moderating effect of emotion-focused coping strategies reported in previous research, no specific hypotheses will be formulated.

METHOD

Sample and Procedure

The sample consisted of 516 participants (69% women; 31% men) employed in various service roles: 34.3% had clerical or administrative jobs involving contact with the public; 29.1% were customer service representatives in call center organizations, 14.5% worked as salespeople, 6.0% were social workers or nurses, 3.5% were waiters, 3.1% were technicians providing customer service, and 2.1% provided services in an educational framework. Participants were recruited by teams of undergraduate students, and the criteria for recruitment and inclusion were that employees provided service and interacted with customers as part of their routine job, and had at least one year of experience in a service job. A cover letter requested candidates' voluntary participation in a survey study on emotion-related work requirements, and included a guarantee that all responses would be confidential and used solely for research purposes. To minimize concerns about confidentiality, participants sealed their survey in envelopes provided by the students, and the

completed questionnaires were returned to the author. Of the 525 completed surveys, 9 were omitted from the study since they did not meet the criteria. This resulted in 516 surveys for analysis. Details of age and experience in service jobs were obtained in categorical classes: 36.2% of the participants were between 20 and 25 years of age, 25.2% were between 26 and 35, 15.9% were between 36 and 40, 11.2% were between 41 and 50, and 11.4% were over 50 years old. With regard to tenure in service jobs, 30.2% had 1– 2 years' experience, 29.5% had 2 – 4 years' experience, 11% had 4 – 7 years' experience, 8.9% had worked 7 – 5 years, and 20.3% had more than 15 years' experience in service jobs. The majority (64.9%) of the respondents worked full-time.

Measurement

- *Customer Aggression*: A three-item measure modified by Grandey et al. (2007) to assess verbal abuse from customers was employed with a response scale in which 1= almost never; 2 = once in a few months; 3 = once or twice a month; 4 = once or twice a week; 5 = once or twice a day; 6 = several times per day. Reliability of the scale was $\alpha = .88$.
- *Strategies for Coping with Aggressive Customers*: The present study used a nine item scale developed by Bailey and McCollough (2000). The response scale ranged from 1 (never) to 5 (usually). Factor analysis confirmed that seeking emotional support (e.g., "I talk with other employees about the customer to pour out my heart") and behavioral disengagement (e.g., "I try to occupy myself with other tasks so that I will not have to deal with customers", and "I take a break to cool down") are distinct structures and separate coping strategies. The scales reliability were $\alpha = .74$ for seeking support and $\alpha = .70$ for behavioral disengagement.
- *Emotional Exhaustion*: A six-item scale developed by Wharton (1993) was used to measure emotional exhaustion (sample item: "I feel emotionally drained from my work"). The response scale ranged from 1 (never) to 6 (every day). The internal reliability of the scale was $\alpha = .91$.
- *Turnover Intentions*: Intention to quit was measured with three items derived from the Turnover Subscale of the Michigan

Organizational Assessment Questionnaire (Cammann, Fishman, Jenkins, & Klesh, 1983; e.g., "I often think about quitting" and "I will probably look for a new job next year"). A 5-point scale was used, ranging from strongly disagree to strongly agree. Reliability was $\alpha = .87$

- *Control variables.* Gender, tenure and work status (full/part-time) were included as control variables for their potentially spurious effect.

RESULTS

Means, standard deviations, and correlations for study variables are presented in Table 1. As expected, customer aggression was positively correlated with emotional exhaustion and turnover intentions. Behavioral disengagement and support seeking also correlated positively with the two dependent variables.

To test the moderating effects of behavioral disengagement and support seeking on the relationships between customer aggression and emotional exhaustion and turnover intentions, hierarchical moderated regression analyses were conducted, with emotional exhaustion and turnover intentions as dependent variables.

TABLE 1
Means and Inter-Correlation of Study 1 Variables

	M	1	2	3	4	5	6	7
Gender	1.71	—						
Tenure	2.59	-.09*	—					
Work-status	1.35	.21**	-.36**	—				
Customer aggression	2.68	.00	-.34**	.26**	—			
BD	2.32	-.05	-.10*	.04	.27**	—		
Seeking support	3.24	.10*	-.08	.04	.13**	.37**	—	
Emotional exhaustion	3.37	.06	-.18**	.14**	.45**	.33**	.23**	—
Turnover intentions	2.91	.00	-.42**	.30**	.38**	.22**	.05	.54**

Notes: * $p < 0.05$; ** $p < 0.01$. Gender: 1=male; 2= female. Work status: full-time = 1, part-time= 2; BD = Behavioral disengagement.

Hierarchical regression analysis assesses whether a block of independent variables makes a unique contribution to the explanation of the dependent variable (Cohen & Cohen, 1983). This procedure allows the impact of main-effect variables on the criterion variable to be tested prior to the interaction. A moderating effect is indicated if the interaction term accounts for significant amounts of variance in the dependent variable beyond that accounted for by other variables in the model (Aiken & West, 1991). In the first step, the control variables (gender, tenure and work status) were entered.

Frequency of customer aggression was entered in the second step. The third step included the moderating variables (support seeking and behavioral disengagement) and in the final step, the interaction terms between customer aggression and coping behaviors were entered (See Table 2 for results).

As shown in Table 2, frequency of customer aggression explained 17% of the variance in emotional exhaustion and 5% of the variance in turnover intentions. Behavioral disengagement was positively related to emotional exhaustion ($\beta = .19$, $p < 0.001$) and turnover intentions ($\beta = .15$, $p < 0.001$), but did not act as a moderator between

TABLE 2
Results of Moderated Regression Analyses (Study 1)

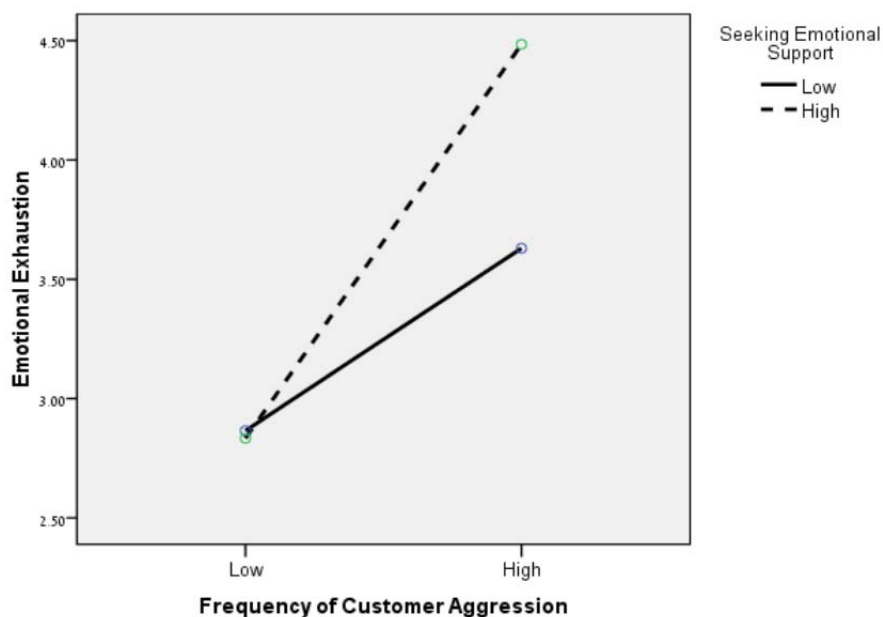
	Emotional exhaustion			Turnover intentions		
	β	<i>t value</i>	ΔR^2	β	<i>t value</i>	ΔR^2
Step 1			.04			.21
Gender	-.02	.56		-.07	-1.70	
Tenure	-.15**	-3.17**		-.37***	-8.72***	
Work status	.08	1.72		.18***	4.25***	
Step 2			.16			.05
Frequency of customer aggression (A)	.44***	10.37***		.24***	5.79***	
Step 3			.06			.02
Behavioral disengagement (B)	.19***	4.55		.15***	3.63***	
Seeking support (C)	.10*	2.38*		-.06	-1.44	
Step 4			.01			.01
A X B	-.21	-1.13		-.23	-1.26	
A X C	.43*	2.16*		.53**	2.68**	
Total R^2			.27			.29

Notes: * $p < 0.05$; ** $p < 0.01$ *** $p < 0.001$. Gender: 1 = male, 2 = female.
Work status: full-time=1, part-time=2.

customer aggression and the dependent variables. Support seeking was positively related only to emotional exhaustion ($\beta = .10$, $p < 0.05$), but the interaction term of customer aggression and support seeking showed a significant effect on both turnover intentions ($\beta = .53$, $p < 0.01$) and emotional exhaustion ($\beta = .43$, $p < 0.05$). To identify the form of the moderations, the regression models were plotted using values one standard deviation above and below the mean of support seeking (Aiken & West, 1991).

As can be seen in Figure 1, the positive relationship between customer aggression and emotional exhaustion was stronger for individuals who tended to seek emotional support than for those who did not. Results of the regression analysis for each of the subgroups (while taking into account the control variables), showed that for the

FIGURE 1
Moderating Effect of Support Seeking on the Relationship between
Frequency of Customer Aggression and Emotional Exhaustion



high support seeking group, customer aggression had a significant and positive effect on turnover intentions ($\beta = .36$, $p < 0.001$) and emotional exhaustion ($\beta = .52$, $p < 0.001$). For the low support seeking group, the relationship between customer aggression and turnover intentions was not significant ($\beta = .10$, $p = .28$) and the relationship between customer aggression and emotional exhaustion was still positive, but weaker ($\beta = .28$, $p < 0.01$).

DISCUSSION

This study investigated the moderating effects of two coping behaviors, namely, support seeking and behavioral disengagement on the relationship between customer verbal aggression and work outcomes. Results showed that behavioral disengagement was positively related to emotional exhaustion and turnover intentions and support seeking moderated the relationships such that individuals who were more likely to engage in support seeking in response to customer misbehavior, tended to report higher levels of emotional exhaustion and turnover intentions the more they were exposed to customer aggression. While the present results seem to confirm previous findings of a positive significant relationship between emotion-focused coping strategies and negative work outcomes (i.e., Acker, 2010), a question can be raised regarding the direction of causality since emotion-focused coping which is oriented toward managing the emotions that accompany the perception of stress, may be also a result – and not solely an antecedent – of a reduced sense of well-being (Ben-Zur, 2009). Given that seeking support is a commonly used strategy for coping with customer aggression (Bailey & McCollough, 2000; Yagil, 2008), the role of social support in attenuating the negative effects of customer aggression needs to be further investigated. Day and Livingstone (2001) suggested that seeking social support is a positive coping strategy, but it is the perception of support that is important, not the actual use of it, and thus it is the perception that support is available when required that needs to be assessed, rather than the actual support-seeking behavior. Study 2 was designed to explore the moderating effects of perceived support from coworkers and supervisors on the relationships between customer aggression and work engagement.

STUDY 2

Social Support as a Resource

According to COR theory (Conservation of Resources theory; Hobfoll, 2001), resources can be anything (conditions, objects, energies and personal characteristics) the person values, and therefore strives to protect and sustain. Social support has long been recognized as an important social resource and a key environmental factor that could buffer the effects of adverse job conditions on psychological health outcomes (e.g., Johnson & Hall, 1988; Karasek & Theorell, 1990). Perceived support, the belief that help is available if needed, is thought to protect against stress, by decreasing the extent to which situations are perceived as threatening and by increasing the use of effective coping strategies, which in turn decrease distress (e.g., Holahan, Moos, Holahan, & Brennan, 1995). Indeed, studies have shown that perceived social support buffered individuals from the negative impact of work stressors such as intense performance monitoring (Holman, et al., 2002) and organizational injustice (Rousseau, Salek, Aube, & Morin, 2009). A review of cross-sectional and longitudinal studies that measure supervisory or coworker support showed that, while there is substantial variation in the magnitude of effects, the majority of studies consistently produced positive evidence of the role of social support in offsetting the effects of stress (Haly, 2009).

In customer service roles, where employees are expected to display positive emotions and treat customers with friendliness, social support is considered an important resource, because it creates a positive work environment, in which it is easier for employees to feel and express positive emotions, and thus it reduces the need for emotional regulation and the accompanying strain (Abraham, 1998; Lee & Ashforth, 1996; Yagil et al., 2008). Deery, Iverson and Walsh (2002) in a study observing call-center employees, found that where team leaders were perceived as willing to listen to the work-related problems of their staff and showed an ability to assist and support them, the level of emotional exhaustion amongst team members was significantly lower. With regard to customer aggression, it is plausible that employees who benefit from social recognition may be less sensitive to mistreatment from customers, because if social support is available and sufficient, it may serve as a substitute for unsatisfactory experience with customers (Brotheridge

& Lee, 2002). Sliter, Sliter and Jex. (2012) suggested that when a customer is rude and uncivil, successful interactions (e.g., civil interactions and support) with coworkers can help the individual regain lost resources. Furthermore, social support, particularly from the supervisor, is likely to empower the workers, and such empowerment can be an effective means to reduce the negative impact of customer aggression (Ben-Zur & Yagil, 2005).

The purpose of this study is to explore the moderating role of social support on the relationship between customer aggression and work engagement, which refers to a positive, affective, motivational state of fulfillment (Schaufeli et al., 2006). Research has largely shown that job stressors have a negative impact on work engagement, while job resources, including perceived social support, may buffer this relationship (Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007; Hakanen, Bakker, & Demerouti, 2005).

There is limited research that assesses the relationship between customer misbehavior and work engagement. One relevant study on flight attendants showed that work engagement was negatively related to emotionally charged interactions with drunk, demanding and aggressive passengers (Heuven, Bakker, Schaufeli, & Huisman, 2006). The study also found that self-efficacy, which was regarded as a personal resource that enables employees to deal with job demands, moderated the relationship between emotionally charged interactions and work engagement. Based on the idea that social support provides resources that may help service providers cope with the stress that results from strained service interactions, it is assumed that perceived support will reduce the negative impact of customer aggression on work engagement.

Hypothesis 1: Perceived social support will moderate the relationship between customer verbal aggression and work engagement. More specifically, the negative relationship between customer aggression and work engagement will be significantly weaker in the presence of a high level of social support.

METHOD

Sample and Procedure

The sample consisted of 422 service providers, 71.5% women and 28.5% men, who were gathered from a variety of service

organizations in northern Israel. Organizations included welfare institutes, hospitals, banks, supermarkets, leisure and entertainment organizations, and call center organizations. Age and tenure were obtained in categorical classes: 37.5% of the participants were between 20 and 25 years of age, 34.8% were between 26 and 35 years of age, 17.2% were between 36 and 50, and 10.5% were over 50. All participants had at least one year of experience in service jobs: 51.2% had 1 to 3 years' experience, 24.6% had 4 to 8 years' experience, 9.2% had 8 to 15 years' experience and 14.9% had more than 15 years of work experience. Half of the respondents (50.2%) worked full time and 27.6% were supervisors or managers. Participants were recruited by undergraduate students in the human service department of a large college in northern Israel. The students were instructed by the author to solicit the participation only of employees who provided service and interacted with customers as part of their routine job and had at least 1 year of experience in service jobs. Participation was voluntary and participants received a letter emphasizing the importance of participating as well as its voluntary and anonymous character. The questionnaires were completed in the presence of the student who administered it. To minimize concerns about confidentiality of responses, participants sealed their survey into envelopes that were provided to them by the students and the completed questionnaires were returned to the author.

Measurement

- *Customer aggression.* Frequency of customer aggression was measured by two items. Following Grandey et al. (2004), respondents were asked to "think about the last time a customer was upset, became very angry and verbally attacked you". Then they were asked to estimate the frequency of such incidents (5 = very often, several times a day; 4 = often, a few times a week; 3 = a few times a month; 2 = rarely, a few times a year; 1 = never or almost never). A second item separately measured the frequency with which the respondent was the target of rude and inconsiderate treatment by customers. The response scale for the second item ranged from 1 (never) to 5 (very often). Reliability was $\alpha = .65$.
- *Social support.* Support from supervisors and support from colleagues were measured using the social support scales

developed by Caplan, Cobb, French, Van Harrison and Pinneau (1975). This measure includes subscales that assess the degree to which emotional support (e.g., "willing to listen to personal problems") and instrumental support (e.g. "can be relied on when things get tough on the job") from coworkers and supervisors are available. The response scale ranged from 1 (not at all) to 5 (completely). Reliability was $\alpha = .81$ for perceived coworkers support and $\alpha = .83$ for perceived supervisor support.

- *Work engagement.* Work engagement was assessed with the shortened version of Utrecht Work Engagement Scale (UWES), developed by Schaufeli et al. (2006; a sample item: "I am enthusiastic about my job"). Respondents indicated the extent to which they agreed with each statement on a 5-point response scale, ranging from 1 (not at all) to 5 (extremely). Reliability was $\alpha = .82$.
- *Control variables.* Gender, tenure, and work status were included as control variables.

RESULTS

Means, standard deviations, and correlations of Study 2 variables are presented in Table 3. As can be seen in the Table, work engagement correlated negatively with frequency of customer aggression and positively with perceived support. To examine the moderating effect of perceived support on the relationship between frequency of customer aggression and work engagement, hierarchical moderated multiple regression analyses were conducted. Control

TABLE 3
Means and Inter-Correlation of Study 2 Variables

	<i>M</i>	1	2	3	4	5	6
1. Gender	1.71	_____					
2. Tenure	2.88	.17**	_____				
3. Work-status	1.49	.11*	-.34**	_____			
4. Customer aggression	2.91	.08	-.31**	.27**	_____		
5. Coworkers support	3.29	.10*	.02	.03	-.11*	_____	
6. Supervisor support	3.13	-.08	.09	-.16**	-.30**	.35**	_____
7. Work engagement	3.16	.07	.38**	-.32**	-.38**	.15**	.44**

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. Gender: 1 = male, 2 = female;
Work status: full-time = 1, part-time = 2.

variables (gender, tenure and work status) were entered in the first step, followed by the predictor in the second step, and the moderators in the third step. In the final step, the cross-product terms (customer aggression X coworkers' support; customer aggression X supervisor support) were entered.

The results, presented in Table 4, show that frequency of aggression had a significant impact on work engagement and only supervisor support directly predicted work engagement. The interaction term of customer aggression and supervisor support showed a significant effect ($\beta = .47, p < 0.01$). To explore the source of the interaction, supervisor support was divided to "high" (1 SD above the mean) and "low" (1 SD below the mean). Results of the regression analysis for each of the subgroups (while taking into account the control variables), showed that in the presence of a low level of supervisor support, customer aggression was significantly related to work engagement ($\beta = -.47, p < 0.001$), while in the presence of a high level of supervisor support, this relationship was not significant ($\beta = -.06, p = 0.52$). From Figure 2 it can be seen that

TABLE 4
Results of Moderated Regression Analyses (Study 2)

	Work engagement		
	β	<i>t value</i>	ΔR^2
Step 1			.19
Gender	.02	.48	
Tenure	.31***	6.08***	
Work status	-.21***	-4.21***	
Step 2			.07
Frequency of customer aggression (A)	-.28***	-5.79***	
Step 3			.11
Coworkers support (B)	-.02	-.33	
Supervisor support (C)	.36***	7.78***	
Step 4			.02
A X B	.18	.68	
AXC	.47**	2.73**	
Total R^2			.39

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

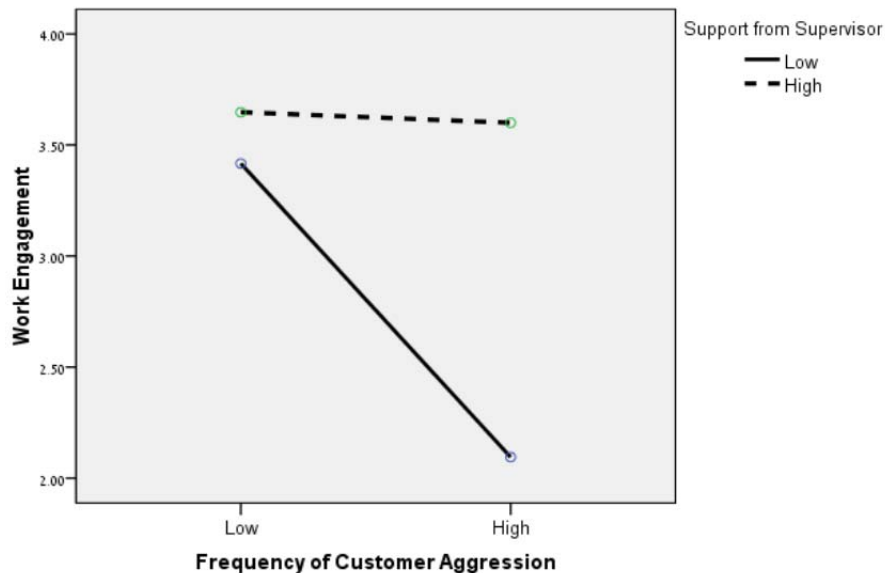
Gender: 1 = male, 2 = female.

Work status: full-time = 1, part-time = 2.

customer aggression was negatively related to work engagement only when perceived supervisor support was low. Overall, the results partially support Hypothesis 1, since coworkers' support did not act as a moderator between customer aggression and work engagement.

Previous studies have shown that customer aggression is likely to trigger emotion-focused coping such as avoidance, denial and support seeking (Bailey & McCollough, 2000; Ben-Zur & Yagil, 2005). The purpose of Study 1 was to extend previous research, by examining the moderating effects of two coping strategies commonly used in response to customer misbehavior, (i.e., support seeking and behavioral disengagement) on the relationships between customer aggression and job-related outcomes. Results demonstrate that the two coping strategies were associated with higher levels of emotional

FIGURE 2
Moderating Effect of Supervisor Support on the Relationship between
Frequency of Customer Aggression and Work Engagement



exhaustion and that individuals who tended to seek frequent emotional support reported higher levels of emotional exhaustion and turnover intentions, the more they had to interact with aggressive customers. Although these results run contrary to the suggestion that seeking support might be an effective way of coping with customer misbehaviors (Yagil, 2008), they do support previous findings which indicated that instead of alleviating the negative outcomes of work stressors, emotion-focused coping strategies are typically associated with high strain (Day & Livingstone, 2001; Zhao & Yamaguchi, 2008).

The purpose of Study 2 was to examine the role of social support in reducing the negative effects of customer aggression. Results show that only supervisor support directly predicted work engagement and significantly moderated the relationship between customer aggression and work engagement; specifically, the detrimental effects of customer aggression on work engagement was observed only among service workers with low levels of supervisor support. Several other reported studies with human service workers have also indentified the importance of supervisor support for the maintenance of positive work outcomes. For example, Brough and Pears (2004) demonstrated that the source of workplace support produced a substantial difference in the prediction of positive work attitudes; social support received from colleagues had no significant influence on either psychological outcome, whereas social support received from supervisors significantly predicted improved satisfaction outcomes. Smith and Gardner (2007) found that only supervisor support was related to less work-to-life conflict, and greater affective organizational commitment.

It is possible that, for dealing with difficult customers, support from supervisors may be more important than support from coworkers as it may enhance employee's self- confidence when facing aggressive customers. It has been widely argued that "the customer is always right" policy encourages customers to behave freely, while at the same time preventing service providers from drawing a line to protect themselves against customer misbehavior; In fact, workers are expected to endure such behavior and "serve with a smile" (Grandey et al., 2007; Yagil, 2008). When social support from the supervisor is available, employees may feel more confident in setting limits to customer behavior. Indeed, research has emphasized the important contribution of supportive supervision to

the employee's sense of empowerment (e.g., Dimitriades & Maroudas, 2007). Ben-Zur and Yagil, (2005) suggested that empowered workers have the tools to defend themselves during interactions with aggressive customers by being assertive. Such assertiveness may act to protect them from the depletion of emotional resources. It was found that service employees who are better able to deal with the emotional demands of their jobs, are more likely to maintain higher levels of work engagement (Heuven et al., 2006). In addition, a supportive supervisor who finds the time to provide employees with information and the instrumental assistance needed to solve customer problems, equips the employee with tools, information and training needed to handle difficulties in service. Prepared and knowledgeable employees are more likely to meet the needs of the customer, thus reducing the likelihood that the customer will be uncivil (Sliter et al., 2012).

This research has some methodological limitations. One limitation concerns reliance on self-report measures, which may increase the potential for common method variance. Several factors minimize the possible influence of an artificial inflection. First, various response scales were used in both studies to minimize response biases and ensure consistency (Podsakoff, Mackenzie, Lee, & Podsackoff, 2003); and second, unlike linear relationships, interaction effects are less likely to be explained by common method variance.

Another concern is that results derived from cross-sectional designs are incapable of confirming causality. For instance, emotional exhaustion may negatively affect the quality of service, which may frustrate customers and make them angry and aggressive. Thus, customer aggression may be also a result – and not solely an antecedent – of poor job attitudes and a reduced sense of well-being. Furthermore, the positive relationships between both coping behaviors and negative work outcomes do not necessarily imply that emotion-focused strategies lead to negative work outcomes. A second interpretation lies in the reverse direction: individuals suffering from emotional exhaustion are likely to experience negative emotional states, which in turn can lead to emotion-focused coping efforts (Ben-Zur, 2009). Research has shown that emotionally exhausted service employees reported higher levels of withdrawal behavior such as work absence, which is suggested to be a form of avoidance and mood control (Grandey et al., 2004). Studying these variables in

longitudinal fashion could shed greater light on the contributions of coping strategies to work outcomes and the moderating effect that individual coping may have in these relations.

The present study focused on only two coping behaviors suggested to be commonly used by service workers. Future research may consider examining the moderating role of other coping strategies on the relationship between customer aggression and work outcomes. Also, given that the pervasiveness of coping behaviors in response to customer aggression may differ across service work environments (Reynolds & Harris, 2006), it might be beneficial for future studies to first identify coping responses likely to be common within a specific work environment or service sector. For example, behavioral disengagement may be less of an option for call center employees, since call center work often involves the intensive use of equipment, (e.g., display screen equipment and telephone headsets), that keeps employees “tied to their desks” (Sprigg, Stride, Wall, Holman, & Smith, 2007). Clearly, more studies are needed in order to identify personal and organizational resources that may reduce the negative effects of customer aggression. It would be also interesting to understand whether customer aggression interacts with social support to predict coping behaviors; specifically, do employees with supportive supervisors employ more effective coping skills in response to frequent interactions with aggressive customers than do employees who perceive their supervisor support as low?

The results have several practical implications. First, it is important for managers in service organizations to recognize that customer aggression has the potential to reduce employees’ work engagement and harm individuals’ well-being, which ultimately leads to poor service delivery. A recent study (Rafaeli, Erez, Ravid, Derfler-Rozin, Efrat, & Rozilio, 2012) showed that the effects of even minor aggression from customers can strongly affect the immediate cognitive performance of customer service employees and reduce their task performance. While managers have almost no control over customer behavior, they do have control over their own behavior and the extent to which they are willing to help employees solve work-related problems and provide them with emotional support and practical advice. The present results suggest that supervisor behavior can play a significant role in mitigating the negative impact of customer misbehavior on work engagement. Therefore, it is

recommended that top management of service organizations provide clear instructions to ensure that the immediate supervisors of frontline employees are willing to provide their employees with guidance and emotional support when needed.

Second, to lessen the need for workers to employ emotion-focused coping strategies, organizations can initiate training programs focusing on how to deal with customer misbehaviors. In these programs, employees might be taught optimal ways of thinking and behaving when confronted with abusive customers, e.g., interpreting verbal aggression in a detached manner (Dormann & Zapf, 2004), so that the intensity of negative emotions experienced is reduced. Consequently, the extent to which emotion-focused coping strategies are employed may be reduced. Training programs could also encourage employees to openly discuss their experiences, to share tips on how to deal with rude customers, or how to set limits on unacceptable behavior. Pienaar and Willemse (2008) suggested that, especially for new service employees, some assertiveness training could be helpful in maintaining their general health, while remaining sensitive to customers' needs. If employees are provided with skills and knowledge for dealing with dysfunctional customer behaviors and tools with which to defend themselves when they are being mistreated, they might view these customers in a less threatening way. Such training may have an important role in enhancing the confidence of employees in their service delivery-related skills. It was found that employees who believe in their ability to successfully handle aggressive customers were less likely to engage in emotion-focused coping strategies and were less affected by frequent interactions with aggressive customers (Goussinsky, 2012). Training employees to use problem-solving coping skills may help protect them from the depletion of emotional resources, an outcome that would be particularly beneficial for frontline service workers who are routinely confronted with aggressive behaviors of customers.

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THE IMPACT OF PERCEIVED ORGANIZATIONAL SUPPORT AND JOB CHARACTERISTICS ON NURSES' ORGANIZATIONAL CITIZENSHIP BEHAVIOURS

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ABSTRACT. This study sets out to examine the relationships between job characteristics, Perceived Organisational support (POS) and Organizational citizenship behaviours (OCB). The mediating role of intrinsic motivation was additionally examined. Although the effects of Perceived Organisational support on Organisational citizenship behaviours are well-documented, few studies have examined the role of job characteristics and intrinsic motivation on organisational citizenship behaviours. Yet, there appear to be natural links between job characteristics, intrinsic motivation and OCB. The sample of the study included a total of 422 nurses. Subjects were recruited from different hospitals located throughout Belgium. Data for this study was obtained by means of questionnaires. Both measures are based on scales that appear to be reliable. Results provide insight into how perceived organizational support and job characteristics impact organizational citizenship behaviour. Intrinsic motivation mediated the relation between job characteristics and organizational citizenship behaviour.

INTRODUCTION

Organizational citizenship behaviours have received a great deal of attention from both academics and practitioners over the course of the past decade (Bolino, 1999, Coyle-Shapiro, Kessler & Purcell, 2004, Desrumaux, & De Chacus, 2007). Organizational citizenship

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behaviour (OCB) is described by Organ as “individual behaviour that is discretionary, not directly or explicitly recognized by the formal reward system and that in the aggregate promotes the effective functioning of the organization” (1988, p. 4). These behaviours are beneficial and supportive for the organization. They are described as lubricating the social machinery of the organization, reducing friction, and increasing efficiency. OCBs involve behaviours that are performed by employees to enhance organizational effectiveness. They are not required by the demands of the task or job at hand (Norris-Watts, 2004).

Therefore, encouraging employees exhibiting OCB and understanding what influences OCB are important research topics both in academia and in practice. Perceived organizational support was an important antecedent variable of OCB (Eisenberger, Fasolo & Davis-LaMastro, 1990). Despite the extensive body of literature focussing on organizational citizenship behaviours and job characteristics, little research has explored the relationships between job characteristics, and OCBs (Chu, Lee & Hsu, 2006). Yet, there appear to be natural links between job characteristics, intrinsic motivation and OCB. Because such behaviours are not required by the demands of the task there are presumably executed for self-generated, intrinsic reasons (Piccolo & Colquit, 2006). The aim of our study is to analyze the relationship between job characteristics, perceived organizational support and OCB within the specific context of healthcare.

THEORETICAL BACKGROUND AND HYPOTHESIS

Organizational Citizenship Behaviour

Most scholars agree on the multidimensionality of OCB. Organ (1988) identifies five dimensions of organizational citizenship behaviours: altruism, courtesy, conscientiousness, sportsmanship and civic virtue. Altruism includes behaviour directed at helping specific people in the workplace environment; courtesy refers to behaviour aimed at ensuring that problems are not created for others, conscientiousness refers to behaviours that surpass work standards; sportsmanship defines tolerance of nuisance issues on the job; and civic virtue behaviour includes active involvement of employees in company affairs. The conceptualization proposed by Williams and Anderson (1991) is also popular in this matter. Williams and Anderson (1991) organize OCBs into categories on the basis of

the target or direction of the behavior. These authors distinguish organizational citizenship behaviours which have some impact on the organization as a whole (OCBOs) and OCBI which are directed at other individuals within the organizational context. Organ (1997) suggests that OCBOs include behaviour such as civic virtues and conscientiousness; whereas OCBI includes behaviours such as altruism and courtesy.

The Relationships among Perceived Organizational Support and Organizational Citizenship Behavior

Given the interest of organizational citizenship behaviours, it seems useful to identify the antecedents underlying such behaviour. According to the exchange theory, OCB is a form of employee reciprocity whereby employees engage in organizational citizenship behaviours to reciprocate fair or good treatment from their employer (Bolino, 1999, Coyle-Shapiro, Kessler & Purcell, 2004). Social exchange relationships develop between the two parties through a series of mutual exchanges (Masterson, Lewis; Goldman & Taylor, 2000). Social exchanges entail unspecified obligations (Gouldner, 1960). Employees develop beliefs about the extent to which their organization values their personal contributions and cares about their welfare. Employees refer to those beliefs as perceived organizational support (Eisenberger, Huntington, Hutchison, & Sowa, 1986). When employees believe that their organization treats them well and values their efforts, they are inclined to devote greater effort towards the organization (Masterson, Lewis, Goldman & Taylor, 2000, Pohl & Paillé, 2011). Workers seek a balance in their exchange relationships with the organization by adopting attitudes and behaviours which are in proportion with the degree of employer commitment shown towards themselves as employees. Employees who have a high level of perceived organizational support feel an obligation to the employer's commitment (Wayne, Shore & Liden, 1997).

Existing research supports the relationship between high levels of perceived organizational support and OCB (Eisenberger, Fasolo & Davis-LaMastro, 1990; Wayne, Shore & Liden, 1997; Randall, Cropanzano, Bormann & Birjulin, 1999; Moorman, Blakely & Niehoff, 1998). However few studies have analysed the relationships between POS and the different component of OCB. According to social exchange perspectives, there is a correspondence between the focus of exchange (organization, colleagues) and the type of reciprocating

behaviour (Redman & Snape, 2005). OCBOs comprise behaviours that have an impact upon the organization as a whole and POS concerns beliefs about the extent to which the organization as a whole values contributions and cares about welfare (Eisenberger, Fasolo, & Davis-LaMastro, 1990; Wayne, Shore & Liden 1997; Randall, Cropanzano, Bormann & Birjulin, 1999). So, the most likely OCB to be influenced by POS is OCB-oriented organization.

Hypothesis 1: Organizational citizenship will be positively influenced by organizational support. This relationship is stronger for OCBOs than for OCBIs.

The Relationships among Job Characteristics and Organizational Citizenship Behavior

In actual fact, examinations of support, OCB and job characteristics have tended to proceed in parallel streams. Job characteristics are concerned with how a job is performed and the range and nature of tasks associated with a particular job. The most commonly investigated motivational job characteristics are autonomy, task variety, task significance, task identity and feedback (Hackman & Oldham, 1976, Hackman & Oldham, 1980). Recent research seems to suggest that autonomy reflects the extent to which a job allows employees freedom, independence, and discretion to schedule work, make decisions, and choose the methods used to perform tasks. Thus, autonomy encompasses three dimensions focused on freedom in work scheduling decision-making, and working methods (Morgeson & Humphrey 2006). Task variety reflects the degree to which a job requires workers to perform a wide range of tasks on the job. Task significance refers to the extent to which a job influences the lives or work of others, whether internal or external to the organization. Workers in jobs that have a significant outcome on the physical or psychological well-being of others are likely to experience greater satisfaction in their employment. Task identity reflects the degree to which a job involves an entire body of work, the results of which are easily identifiable. Jobs providing a complete unit of service or which put together an entire product are invariably more interesting to perform than jobs only focussing on small sections of the task (Hackman & Oldham, 1980; Morgeson & Humphrey, 2006). Job characteristics lead to positive psychological states, such as meaningfulness and responsibility which, in turn can lead to higher organisational citizenship behaviours (Banai & Reisel, 2007).

Surprising, few studies have examined the relationship between job characteristics and organisational citizenship behaviour. Nevertheless, job characteristics lead to positive psychological states, such as meaningfulness and responsibility. Prior research demonstrates that employees in jobs with more responsibility spend more time interacting with others, exchanging information and have greater ability and opportunity to participate. Employees that experience task significance and autonomy experience also social pressure to participate actively in the organization (Graham & Van Dyne, 2006).

Hypothesis 2: Job characteristics impact positively on organizational citizenship behaviours

Job Characteristics, Intrinsic Motivation and Organizational Citizenship Behavior

A literature review indicates that research in this area focuses primarily on the implications of job characteristics for workers "positive" behavioural outcomes like job satisfaction and organizational commitment (Singh, 1998). The conceptual rationale in these relationships is based on the notions of motivation and means-end chains (Singh, 1998). Job characteristics are stable aspects of the working environment which can bear an influence on the motivation of employees (Saavedra & Kwun, 2000). Skill variety, task identity, task significance and autonomy enhance three psychological states (experienced meaningfulness, experienced responsibility and the knowledge of results) which in turn influence intrinsic motivation (Champoux, 1991). Intrinsic motivation exists when performing a task serves as its own reward, owing largely to a sense of enjoyment and pleasure (Deci, Koestner, & Ryan, 1999). When workers engage a task because they find it interesting they are in effect undertaking the task volitionally (Gagné & Deci, 2005). Consequently, we suggest that job characteristics enhance intrinsic motivation.

Existing research still indicates that employees are more likely to go beyond their formal job requirements when they have intrinsically motivating tasks (Saavedra & Kwun, 2000, Bolino, Turnley & Bloodgood, 2002). Organizational citizenship behaviours are not directly recognized by the formal reward system (Bolino, Turnley & Bloodgood, 2002). Organizational citizenship behaviours are voluntary behaviours that are largely unconstrained by system

factors. These behaviours go above and beyond the call of duty (Organ, 1997). It follows that intrinsic motivation can lead to organizational citizenship behaviours.

We propose that job characteristics have an influence on OCB through their effects on intrinsic motivation. Thus, by enhancing intrinsic motivation, job characteristics appear to be linked to OCB.

Hypothesis 3: The relationship between job characteristics and OCB is mediated by intrinsic motivation

METHODS

Method and Subjects

The sample for this study is drawn from 422 nurses employed at different hospitals throughout Belgium. The socio-professional categories of the respondents correspond to nurses (362) and supervisors (59). The sample is composed of 150 men and 261 women. The average tenure is 15 years and 75,6% of the employees worked in full-time employment. Data for this research is obtained by the use of questionnaires that were published on the site of a professional nursing association for the organization of a two-day congress on the same topic. Responses obtained originate from nurses, chief nurses, middle-managers and directors.

Measures

Organizational Citizenship Behaviour

To measure organizational citizenship behaviour, we refer to the scale developed by Podsakoff, Mac Kensie, Morman and Fetter (1990). We assessed two dimensions of OCB: altruism (5 items) and civic virtue (4 items). Altruism and civic virtue have acceptable levels of internal consistency ($\alpha = .767$ and $\alpha = .725$, respectively). An example of item used to evaluate OCB-altruism is: "Help orient new people even though it is not required." One example of an item used in evaluating OCB-civic virtue is: "Attend and participate in meetings regarding the organization." Responses were given on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Perceived Organizational Support

We use a shortened version of POS developed by Battistelli, Mariani and Bellò (2006). Employees responded to these 4 items on five-point scales with anchors of “strongly disagree” and “strongly agree.” Cronbach’s alpha is .824.

Task Characteristics

We used the work Design Questionnaire developed by Morgeson and Humphrey (2006). This scale assessed autonomy, task variety, task significance and task identity.

- **Autonomy (9 items).** Recent research suggest that autonomy reflects the extent to which a job affords employees their own freedom, independence, and discretion to schedule work, make decisions, and choose the methods used to perform tasks. Thus, autonomy encompasses three dimensions centred on freedom in work scheduling decision-making, and working methods. Cronbach’s alpha is .919
- **Task variety (5 items).** Task variety reflects the degree to which a job requires workers to perform a wide range of tasks on the job. Cronbach’s alpha is .833
- **Task significance (2 items).** Task significance refers to the extent to which a job influences the lives or work of others, whether internal or external to the organization. Cronbach’s alpha is .834
- **Task identity (2 items).** Task identity reflects the degree to which a job involves an entire body of work, the results of which are easily identifiable. Jobs that provide a complete unit of service or that put together an entire product are invariably more interesting to perform than jobs that involve only small parts of the task. Cronbach’s alpha is .734

Intrinsic Motivation

Intrinsic motivation is assessed using the Motivation at Work Scale (MAWS) developed by Gagné, Forest, Aubé, Morin and Malorni (2008). An example question being: “I do this job for the moments of satisfaction it gives me.” Items were followed by a five-point response scale, ranging from 1 “strongly disagree” to 5 “strongly agree.” Cronbach’s alpha is .789.

RESULTS

The first step of collating results involved calculating descriptive statistics. Table 1 shows the means, standard deviation and correlations between our research variables. These show consistency with our hypotheses insofar as significant correlations emerged between autonomy, variety, identity, impact and intrinsic motivation. A strong relationship between OCB-altruism, OCB-civic virtue and intrinsic motivation can additionally be observed. An examination of the bivariate correlation was also used assess multicollinearity.

TABLE 1
Correlations, Means and Standard deviations

	Mean	SD	1	2	3	4	5	6	7
Autonomy	3.71	.677							
Variety	4.05	.529	.523**						
Identity	3.71	.746	.595**	.366**					
Impact	3.19	.927	.165**	.160**	.165**				
POS	3.49	.732	.434**	.335**	.340**	.196**			
Intrinsic motivation	3.40	.832	.293**	.520**	.269**	.152**	.416**		
Altruism	4.32	.431	.166**	.234**	.146**	.129**	.241**	.406**	
Civic virtue	4.03	.616	.232**	.273**	.194**	-.013	.397**	.329**	.102*

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

Testing our own Hypothesis

To test our hypothesis, we first conducted a hierarchical regression analysis of the two dimensions of organizational citizenship behaviours (altruism and civic virtue) on job characteristics and perceived organizational support. The results of the hierarchical regression analysis are indicated in Table 2. Hypothesis 1 predicted that OCBOs will be positively influenced by POS and Hypothesis 2 predicted that OCBs will be influenced by job characteristics. POS and variety explained 7.8 percent of the variance in OCB-altruism ($p < .001$) and 20 percent of the variance in OCB-civic virtue ($p < .001$), with autonomy, identity and impact not contributing incremental variance. As one might expect, POS have significant effect on OCB-altruism and on OCB-civic virtue but only variety affects OCBs-altruism and OCB-civic virtue.

TABLE 2
Hierarchical Regression of OCB on Job Characteristics and POS

Predictors	OCB-altruism		OCB-civic virtue	
Step 1				
POS	.265**	.209*	.380	.354**
Step 2				
Autonomy		-.001		-.041
Variety		.189*		.190*
Identity		-.008		.066
Impact		.035		-.106
Adjusted R2		.078		.202
Change in F	11.497	3.150	37.382	4.529
Change in R2	.061	.033	.174	.041

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

In order to undertake a test of the mediating effects of intrinsic motivation on the relationships between job characteristics and OCB, we conduct a multi-step regression following the procedure outlined by Baron and Kenny (1986). The procedures are as follows: (1) regressing the dependent variable on the independent variable; (2) regressing the mediator on the independent variable; and (3) regressing the dependent variables on the independent variable and mediator (Baron and Kenny, 1986). If the independent variable shows significance on the mediator, the mediator shows significance in the dependent variable, and the independent variable is not significant on the dependent variable, there is likely a mediator between the independent variable and dependent variable (Baron and Kenny, 1986). First, the mediator (intrinsic motivation) is regressed on the independent variables (variety), and subsequently, the dependent variable (OCB-altruism and OCB-civic virtue) is regressed on the independent variable (Variety). Finally, independent variables and mediators were entered jointly in the regression.

As can be observed from Table 3, the relation between intrinsic motivation and variety is found to be significant; with other relations not being so significant. Variety explained 27% of the variance in intrinsic motivation ($p < .001$).

The results show that variety is a predictor of OCB-altruism and OCB-civic virtue. As Table 4 illustrates, the other relations are not significant. Intrinsic motivation links positively to OCB-altruism and

TABLE 3
Step 1 - Regression of Intrinsic Motivation on Job Characteristics

Predictors	Intrinsic motivation
Step 1	
Variety	,515**
R2 adjusted	,268

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

OCB-civic virtue. The regression weight for variety has changed which reflects the change in magnitude in predicting OCB-altruism from variety when the mediator is included in the regression. Results show that intrinsic motivation mediates the relationships between variety and OCB-altruism. This analysis therefore provides support to hypothesis 3.

TABLE 4
Regression of OCB on Job Characteristics and Intrinsic Motivation

Predictors	OCB-altruism	OCB-civic virtue
Step 2		
Variety	.189*	.194**
Adjusted R2	.047	.082
Step 3		
Intrinsic motivation	.406**	.329**
Adjusted R2	.163	.106
Step4		
Variety	.032	.135*
Intrinsic motivation	.390**	.268**
Adjusted R2	.161	.124

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

DISCUSSION

This study contributes in several distinct manners towards literature on OCB in healthcare. Our results shows that nurses engage in OCB as a form of reciprocity based on organizational treatment. Reciprocity is a useful basis for understanding OCB-altruism and OCB

civic virtue in a health context. A key finding of this study is that perceived organisational support is correlated more to OCB-civic virtue than OCB- altruism. This result is consistent with the social exchange perspective. According to the social exchange framework, there is a correspondence between the focus of exchange (organization, supervisor, work group) and the type of reciprocating behaviour (Redman & Snape, 2005, Masterson, Lewis, Goldman & Taylor, 2000; Cohen, 1999). The OCB most likely to be influenced by perceived organisational support is OCB-oriented organization. The process by which reciprocity impacted OCB could be different in OCB-altruism and OCB-civic virtue. Nurses who experience perceived organisational support felt an obligation to return an employer's commitment by engaging in behaviours that support organisational goals. In this case, nurses can engage in OCB-civic virtue. The mechanism underlying the reciprocity of altruist behaviors may be emotions. Frequent social exchanges may lead to positive emotions, fosters cohesion and generate altruistic behaviors.

A second point to note is that although the job characteristics model has been the origin of a large amount of studies relating to how this model influences employee outcomes (Saavedra & Kwun, 2000), few studies have actually examined the relationship between job characteristics, intrinsic motivation and OCB. Yet, job characteristics led to positive psychological states, such as meaningfulness and responsibility which, in turn, lead to higher intrinsic motivation (Hackman and Oldham, 1980). Workers whose actions were powered by intrinsic rewards were more likely to perform OCB (Turnley & Bloodgood, 2002; Piccolo & Colquit, 2006). This study demonstrates that skill variety and intrinsic motivation is a useful predictor of OCB. We found a significant direct relationship between variety and OCB. When considered more closely, analysis reveals that this relationship is mediated by internal motivation. Variety is a quality of jobs that can inspire a cycle of motivation powered by self-generating rewards for good work. Given the absence of constraints on OCB (Organ, 1997), it is not surprising that there is a strong link between intrinsic motivation and OCB.

Our focus on job characteristics and intrinsic motivation complements the content of other research that explore the antecedents of organisational citizenship behavior. Our results point to a motivation-based mediator that adds to the social exchange-

based mechanisms explored in past research, such as perceived organisational support, leadership support, and organisational justice (Eisenberger, Fasolo & Davis-LaMastro, 1990; Wayne, Shore & Liden, 1997; Randall, Cropanzano, Bormann & Birjulin, 1999, Moorman, Pohl & Paillé, 2011). Furthermore, our results represents a clear break with the common view that care providers, such as nurses, should be guided only by altruistic means in their professional choice and practices. Altruism and civic virtue depend strongly on the context of an organization placing focus on social and individual development. Furthermore, the findings of this study offer significant insights into the relevance and importance of variety in the context of healthcare organizations. Hence, management styles that promote task variety are likely to generate intrinsic motivation and enhance virtue civic and altruism among nurses working in hospitals. On the basis on our findings, it is advisable to focus interventions on enhancing task variety.

Limitations

It is not possible to propose causal interferences because our data is cross sectional. Stronger causal inferences can only be inferred with longitudinal or experimental studies. Our research variables are measured with self-report survey measures. It is possible that the relationships observed may have been artificially inflated as a result of respondents' tendencies to respond in a consistent manner. Despite these limitations, we believe that the purpose of our study has been successfully achieved. The findings from this study suggest directions for future research which could explore the factors that determine when POS and job characteristics could enhance OCB within the healthcare context.

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EXPLORATORY STUDY ON EMPLOYEES' MOTIVATION IN THE OMANI PRIVATE BANKING SECTOR

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ABSTRACT. There are clear evidences that organizations are focusing on retaining motivated employees. Although motivation is a well-discussed topic in academic literature, motivation of employees in the Omani private banking sector is not fully discussed. The purpose of this exploratory study is to find some insights on the predictors of employees' motivation in the Omani private banking sector. A cross-sectional method was used to collect data from 105 employees from the Omani private banking sector. Furthermore, to collect the primary data, a questionnaire with 23 items was designed and distributed for that purpose. In order to analyze the gathered data, correlational methods were used. This exploratory study shed some light on the importance of the relationship that the employees have with their colleagues on their motivation and on the employees' salaries to their motivation. The study found these two variables as significant and positive predictors of employees' motivation.

INTRODUCTION

Motivation is derived from the Latin word *movere* which means to move (Kreitner & Kinicki, 1988). Motivation was defined by Robbins (1993) as "The willingness to exert high level of effort towards organizational goals, conditioned by the effort's ability to satisfy some individual needs". Furthermore, motivation represents those psychological processes that cause the arousal, direction and resolution of voluntary activities that are goal oriented (Mitchell, 1982). Bartol and Martin (1998) define motivation as "a force that energizes behavior, gives direction to behavior, and underlies the

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tendency to persist.” Many research magnified the importance of motivation in the individual and organizational levels. Tietjen and Myers (1998) found that motivation is related to satisfaction of employees. Moreover, Amabile (1998) found that motivation is correlated with individual performance. Further in an organizational level, Nahavandi and Malekzadeh (1999) associate the concept of motivation with management issues related to organizational performance. They define motivation as a state of mind, desire, energy or interest that translates into action. This action is viewed as work performance. In today’s highly competitive labor market, there are major evidences that organizations, regardless of their orientations, are focusing on retaining their best employees (Ramlall, 2004). Furthermore, motivation of employees is an essential element for any organization (Rafikul & Zaki Hj, 2008). However, even with these clear evidences of the importance of motivation, there is a lack of research on motivation of employees in the financial sector in Oman. Even with the growth in research literature in motivation of employees in the financial sector in the western world, there is a considerable uncertainty as to the relevance of these researches to specific culture contexts. Moreover, motivation of employees in the private banking sector in Oman was not fully discussed before. The purpose of the exploratory study is to understand the possible impact of salary, relationship with supervisor, relationship with colleagues and job autonomy on motivation of employees in an individual level. The study is aiming to establish general grounds of understanding for researchers, decision makers and individuals on motivation of employees in the Omani private banking sector.

Banking Sector in Oman

In Oman, the banking industry has been witnessing significant growth in recent years, mainly due to sustained revenues generated from oil prices, efforts to diversify the economy and growing emphasis on the private sector (Central Bank of Oman, 2009). Furthermore in 2008, 17 commercial banks accounted for 93% of the financial system assets (Bologna & Prasad, 2009). Seven of these 17 banks are local banks such as BankMuscat and BankDofar. Furthermore, 10 banks are foreign banks mainly from India, the United Kingdom, Iran, Pakistan, and the Middle East region. Moreover, 7 of the 10 foreign banks have been operating in the country for more than 30 years (Bologna & Prasad, 2009).

LITERATURE REVIEW

Theoretical Background

Motivation is one of the most intensively studied topics in the social sciences. Brewer and Selden (2000) argued that scholars devoted substantial effort in developing a master theory of motivation. On their part, Bartol and Martin (1998) categorized motivation theories into three categories which are, needs theory, cognitive theory and reinforcement theory. The most popular needs theory is brought from Abraham Maslow. Moreover, it is known as Maslow's motivation theory of hierarchical needs. The hierarchy includes five basic levels of needs, which should be satisfied consecutively (Maslow, 1970). Alderfer (1972) proposed an alternative to Maslow's theory known as ERG theory. He combined Maslow's theory into three levels which are existence (E), relatedness (R) and growth (G). Existence needs include physiological factors such as food, shelter, clothes, good pay, fringe benefits and good working conditions. Relatedness needs address the relationship with others such as families, friends and work groups. Growth needs are related with Maslow's last two levels which are self-esteem and self-actualization. Herzberg, Mausner and Snyderman (1959) developed the two factors theory of motivation. Furthermore, this theory has two groups of factors which are called motivators and hygiene factors. In the same scope, McClelland (1985) studied three types of needs: achievement, affiliation and power as motivators.

Cognitive theories of motivation are widely used. Expectancy theory is one of the most known theories that uses cognitive processes for motivation. The theory argued that the strength of likelihood to act in a certain way depends on the strength of an expectation. Thus, the act will be followed by a given outcome and on the attractiveness of that outcome to the individual (Robbins, 1993). Furthermore, equity theory recognizes that individuals are concerned not only with the absolute amount of rewards they receive for their efforts, but also with the relationship of this amount to what others receive. In other words, when people perceive an imbalance in their outcome-input ratio relative to others, tension is created (Carrell & Ditttrich, 1978). Moreover, one of the main assumptions of this theory is that people develop beliefs about what constitutes a fair and equitable return for their contributions of their jobs.

The reinforcement theories are actually the opposite of the cognitive theories. Thus, reinforcement theories do not relate with human thought process. According to the reinforcement theory, our behavior can be explained by consequences in the environment and therefore, it is not necessary to look for cognitive explanations. Instead, the theory relies heavily on a concept called the law of effect that states behaviors having pleasant or positive consequences are more likely to be repeated and behaviors having unpleasant or negative consequences are less likely to be repeated (Bartol & Martin, 1998).

Motivation in Organizations

Motivation of employees is a well-discussed matter in literature. In a wider scope, research found that there are some differences and similarities of motivation between the private and public sectors. Posner and Schmidt (1996) found that the employees' fulfillment of their achievement and self-actualization needs motivate employees in both sectors. Moreover, Gabris and Simo (1995) confirmed that the need for job security has been shared as a motivator in both sectors. However, Rainey (1982) concluded that public sector managers cared less about monetary rewards compared to private sector managers. In terms of motivation in the private financial sector, Chovwen and Ivensor (2008) conducted a research on perceived job insecurity and motivation of Nigerian female employees in banks. The purpose of this paper was to examine the predictors of perceived job insecurity and motivation. The data were collected from 286 female participants in merged and acquired banks in two capital cities of South West Nigeria through the usage of questionnaires designed for that study. Furthermore, the data collected was analyzed using regression and t-test statistics. The most important finding of the research was the significant influence of job characteristics and organizational justice in women's perceived threat of job loss and motivation. In the same scope, Kubo and Saka (2002) conducted a research on motivation in the Japanese financial sector. Moreover, the purpose of this research was to find predictors of motivation in the Japanese financial sector. The authors found three significant and positive predictors of motivation which are monetary incentive, human resource development and job autonomy.

HYPOTHESES DEVELOPMENT

Based on the literature reviewed and with a consideration of the unique features of the Sultanate of Oman, four hypotheses were developed for this study.

H1: Monthly salary is a positive and significant predictor of employees' motivation.

Besides the classical theory of Herzberg, Mausner and Snyderman (1959) that argued that compensations such as salaries may impact motivation, many other researches confirmed that monetary incentives such as salaries are predictors of motivation (Kubo & Saka, 2002). As a result, employees with higher salaries will be highly motivated (Wiley, 1997).

H2: The relationship with supervisor is significantly and positively related to motivation of employees.

Researches show that supervision contributes to motivation (Claes & Heymans, 2008). Supportive supervisors show concern for employees' needs and opinions, provide informational feedback and promote the development of their skills (Deci & Ryan, 1985; Lichtenstein, Netemeyer, & Maxham III, 2010). Therefore, a good supervisor will impact the motivation of his or her employee positively (Coelho, Augusto, & Lages, 2011).

H3: Relationship with colleagues is significantly and positively related to employees' motivation.

Peers provide emotional support and help each other with job-related problems (Zhou & George, 2001). Alderfer (1972) argued that factors such as family, friends and colleagues can impact motivation.

H4: Job autonomy is a positive predictor of motivation of employees.

Along with well-established self-determination theory, many researches confirmed that job autonomy has an impact on motivation (Gagne´ & Deci, 2005). Moreover, Blais and Briere (1992) found that job autonomy is a positive predictor of employees motivation. Furthermore, Deci and Ryan (1985) confirmed the positive effect of job autonomy on employees' motivation.

METHODOLOGY

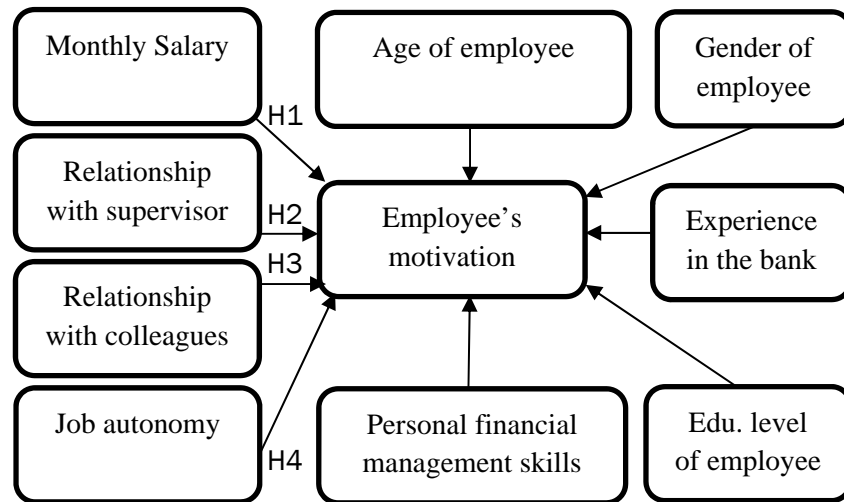
In this exploratory study, a cross-sectional method was used to collect data from employees working in the Omani private banking sector. A questionnaire was designed with 23 items for this study to collect the primary data. The questionnaires were administered in Arabic and English (items were written in Arabic and English) in order to reduce the risk of losing meaning. The questionnaires were distributed to employees of BankMuscat, BankDofar and AhliBank anonymously. Further, the return rate of the questionnaires was high (87.5 %). The researcher selected this sample due to the fact that it was convenient to collect data from these three banks and it was suitable for the time limitation of the research.

In this exploratory study, motivation of employees was used as the dependent variable. Moreover, it was measured through three questionnaire items adopted from Coelho, Augusto and Lages (2011) scale of motivation. These items were measured on 1 to 5 Likert scale where 1 = strongly disagree and 5 = strongly agree. Furthermore, the Cronbach's Alpha of motivation scale was 0.832.

The study has four independent variables which were monthly salary, relationship with supervisor, relationship with colleagues and job autonomy. These variables were used to predict motivation of employees. Figure 1 illustrates the research framework.

The first independent variable in this exploratory study was the monthly salary of employees. This variable was measured by a categorical scale. The second independent variable was employees' relationship with their supervisor. This variable was measured through 6 questionnaire items adopted from Coelho, Augusto and Lages (2011). Further, the Cronbach's Alpha of employees' relationship with their supervisor scale was 0.769. The third independent variable was employees' relationship with their colleagues. This variable was measured through 3 questionnaire items adopted from Coelho, Augusto and Lages (2011). Moreover, the Cronbach's Alpha of employees' relationship with their colleagues scale was 0.703. The final independent variable in this exploratory study was job autonomy of employees. This variable was measured through 4 questionnaire items adopted from Coelho Augusto and Lages (2011). The Cronbach's Alpha of job autonomy scale was 0.824.

FIGURE 1
Research Framework



There were several items that have been developed as control variables and, also, to capture differences in the sample. The first variable was personal financial management skill that Luigina, Anna, and Paul (2005) defined as "Saving as a consequence of a personal habit to avoid spending, for moral, cultural and psychological reasons". This variable was measured through three questionnaire items. Items such as "I tend to save money monthly" were used to measure this variable on 1 to 5 Likert scale where 1 = Strongly disagree and 5 = Strongly agree. Moreover, the Cronbach's Alpha of personal financial management scale was 0.713. The second variable was gender of employees which was measured by a dummy variable where 1 = Male and 2 = Female. The third variable was marital status which was measured by a dummy variable where 1 = Married and 2 = Non Married. The fourth variable was education levels of employees. This variable was measured by a categorical scale where 1 = less than diploma level, 2 = Diploma level, 3 = Bachelor level, 4 = Master level, 5 = More than Master level. The final variable was the experience that the employees have in their banks. This variable was measured by ratio scale.

The sample of this study was selected from three banks in the sultanate of Oman. In order to test the hypotheses of the study, 105 employees participated from these three banks. Sixty five (61.9%) of the participants were male employees whereas 40 (38.1%) of the participants were female employees. Further, the analysis showed that the average age of this sample was 28 years and 54 (51.4%) of the participants were non married whereas 51 (48.6%) of the participants were married. Moreover, the participants in this study had different educational levels. Thus, 28 (26.7%) of the participants had degrees less than a Diploma whereas only 5 (4.8%) participants had Master degrees. Furthermore, 36 (34.3%) participants had bachelor degrees and 36 (34.3%) of the participants had Diploma degrees. In terms of the experience that the employees have in their banks, the analysis showed that the participants had an average of 5.6 years of experience in their banks.

RESULTS AND DISCUSSION

The correlation analysis in Table 1 indicated some findings. Firstly, motivation of employees is positively correlated with relationship with supervisor ($r = .405$, $p < .001$). Hence, when the motivation of employees increases, they will have better relationship with their supervisors. Secondly, motivation of employees is positively correlated with relationship with colleagues ($r = .546$, $p < .001$). As a result, when the relationship between the employees and their colleagues increases, the motivation of these employees will increase as well. Thirdly, the correlation analysis showed that motivation of

TABLE 1
Correlation Analysis of the Study Variables

Variables	Mean	S.D.	1	2	3	4	5
1. Motivation of Employees	4.019	.691	1.000				
2. Relationship with Supervisor	3.634	.927	.405 ^c	1.000			
3. Relationship with Colleagues	3.771	.705	.546 ^c	.596 ^c	1.000		
4. Job Autonomy	3.578	.882	.365 ^c	.451 ^c	.521 ^c	1.000	
5. Monthly Salary of Employee	2.876	1.016	.260 ^b	.223 ^a	.084	.373 ^c	1.000

Notes: ^a $p < .05$, ^b $p < .01$, ^c $p < .001$.

employees correlates with job autonomy ($r = .365$, $p < .001$). Thus, when job autonomy increases, the motivation of employees will increase as well. Finally, the data showed that motivation of employees correlates with salary ($r = .260$, $p < .01$). As a result, when the salaries of employees increase, the motivation of these employees will increase.

In terms of the model goodness of fit and its significance, the multiple regression analysis in Table 2 showed some essential findings. Firstly, the model has a good fit where ($F_{\text{block one}} = 7.08$, $p < .001$) and ($F_{\text{block two}} = 7.68$, $p < .001$). Secondly, R^2 of block two has a value of 0.442. In other words, the independent variables of this study explained 44.2% of the change in motivation of employees. Despite the fact that R^2 is moderately small, this is accepted as the study has a behavioral scope.

TABLE 2
Regression Results

Variables	Block 1 Control Variables	Block 2 Independent Variables
	Beta Value	Beta Value
(Constant)	2.875 ^b	1.734 ^b
Education of employee	-0.037	0.083
Age of Employees	-0.027	0.083
Gender of Employee	-0.04	0.118
Employee experience in the Bank	0.007	0.012
Personal Financial Management Skills	0.383 ^b	0.072 ^b
Monthly Salary of Employee		0.085 ^a
Relationship with Supervisor		0.076
Relationship with Colleagues		0.119 ^b
Job autonomy		0.079
R^2	0.280	0.442
Adjusted R^2	0.240	0.385
ΔR^2	0.280 ^b	0.162 ^b
Full Model F	7.08 ^b	7.68 ^b
N	105	105

Notes: ^a $p < .05$, ^b $p < .001$.

The multiple regression analysis in Table 2 illustrated some important findings. Firstly, the regression analysis showed that H1 is supported because the coefficient of salary is significantly and positively related to motivation of employees ($\beta = 0.085$, $P < 0.5$). Secondly, the analysis indicated that H2 is rejected. Hence, the coefficient of relationship with supervisor is not a significant predictor of employees' motivation ($\beta = 0.076$, $P > 0.5$). Thirdly, the analysis showed that H3 is supported because the coefficient of relationship with colleagues is significantly and positively related to motivation of employees ($\beta = 0.119$, $P < 0.001$). Finally, the multiple regression analysis showed that H4 is rejected. Thus, the coefficient of job autonomy is not significantly related to motivation of employees ($\beta = 0.079$, $P > 0.05$).

CONCLUSION

The results of this study give some insights on the importance of employees' monthly salaries on motivation. Further, the results of this study support the positive impact that employees' relationship with their colleagues has on motivation. In a practical level, employees should enhance their relationship with their colleagues in order to be motivated. Even though that the study is focused on an individual level, supervisors and decision makers within the Omani private banking sector should understand the importance of salaries and importance of employee – colleague relationship on motivation that this study tried to bring. Managers and decision makers should encourage their employees to have good relationships with their colleagues by making sure that their employees know each other through having common goals, collaborative projects, and focus on having results that is measured through team work. Monthly salary variable was found in this study as a predictor of motivation and this finding supports a lot of other research on this matter. However, salaries are not the only factor that impacts motivation. Therefore, Managers and decision makers should not only focus on one factor such as the monthly salary as an ultimate tool for motivation. In a theoretical level, this study confirms with result of Wiley (1997) and Kubo and Saka (2002) studies on the role of salary as a positive predictor of motivation of employees. Further, the study confirms with result of Claes and Heymans' (2008) study on the positive role of relationship with colleagues as a predictor of employees' motivation. However, further research should explore the kind of the relationships

between colleagues in the Omani private banking sector that will lead to employees' motivation. Moreover, that will help decision makers to determine the sort of relationships that should be encouraged in the Omani private banking sector that would lead to the motivation of employees.

There are some limitations to this study. Firstly, this is an exploratory study with small sample. Secondly, data were collected through cross-selection method and were self-reported. Thus, the potential biases cannot be ignored. Finally, the results remain limited to the Omani private banking sector. Hence, applying the result of this study in a different environment than the Omani private banking sector would be misleading.

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**ORGANIZATIONAL FRAMEWORK FOR MANAGING THE MULTIPLICITY
OF CONTINGENCY FACTORS: INVESTIGATION USING THE MODERN
JAPANESE RECYCLING BUSINESS**

Akira Kimata*

ABSTRACT. This study is founded on contingency theory, which is derived from organization theory, and in it we examine the structural problems of the modern Japanese recycling business using J. D. Thompson's model of contingency theory. Based on the results of our interviews conducted with 16 companies through the nondirective method, we argue that there are multiple contingency factors in the modern Japanese recycling venture and that these factors increase uncertainty and reduce the stability of the business as a result. We conclude that as an active level of 'sub technology,' recycling businesses created as diversifications of major companies will eventually manage the multiplicity of contingency factors.

INTRODUCTION

Modern Japanese enterprises are reconsidering the 20th century model of mass production, mass consumption, and mass disposal, and in the midst of the need to adopt a sustainable model of economic growth that minimizes harm to the world (e.g., Carson, 1962; Ehrlich, 1968; Hardin, 1968; Commoner, 1971; Steiguer, 1997), enterprises are expected to proactively contribute to this new model (Porter, 1991; Sharma, 2000; Senge, 2006). This is not only to reduce the environmental burden of traditional manufacturing enterprises, but also to create an environmental protection enterprise in Japan. According to guidelines of The Organization for Economic

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Co-operation and Development (OECD), Ministry of the Environment (2005) predicted that domestic environmental businesses will grow from 29.9 trillion yen in 2000 to a forecasted 58.4 trillion yen in 2020, and rank with the information technology (IT) field as an industry with high expectations for the 21st century. Among these environmental businesses, waste processing services, which form the pillar of resource recycling, are drawing attention, with growth from 2.9 trillion yen in 2000 to a forecasted 10.6 trillion yen in 2020. However, looking at the reality of today's waste processing services in Japan, there seem to be difficulties keeping business creation at a pace commensurate with the growth rate, because new stock offerings from ventures seeking to perform waste processing services as their central business are almost nonexistent.

In this study¹⁾ we examine the relationship of modern recycling work technology and the environment using the framework of contingency theory, which is derived from organizational theory. This research is based on interviews conducted with 16 companies, in which we paid special attention to the input and output of waste materials, and contingency factors that can be seen in the recycling enterprise in Japan. As contingency factors heighten uncertainty, comparing what appear to be stabilizing work developments is proving difficult. According to Nonaka et al. (1978), the contingency factor is defined as the environmental element that is too difficult to control directly by an organization. We found that in Japanese recycling enterprises that are set up by large corporations for diversification purposes the generation of additional technologies tends to deal with the multiplicities of contingency factors.

The concept of resource productivity has been described (e.g., Porter & Linde, 1995a; Porter & Linde, 1995b; Hawken, Lovins, & Lovins, 1999), and the authors of early studies stressed that the key to economic recycling is in raising the efficiency of material inputs with respect to levels of output (Hawken, 1994; Weizsäcker, Lovins, & Lovins, 1998). Furthermore, while looking at which waste materials inside and outside the manufacturing system can be used effectively, we proposed an economic metric to gauge the effectiveness of the environmental conservation model of the manufacturing system (Kimata, 2004, Kimata, 2006). However, whereas our study made it possible to compare differences in the flow of material in

manufacturing systems, it was insufficient to clarify whether the system was maintaining the stability of the process (Kimata, 2011).

Inquiry Framework

In this study, we will be citing, offering examples from, and examining contingency theory, which was established mainly in the 1960s-1970s to investigate the relationship between organizations and the environment (Burns and Stalker, 1961; Woodward, 1965; Lawrence & Lorsch, 1967; Duncan, 1972; Luthans, 1976). The contingency theory is a way of analyzing the relation of cause and effect between an organization and the external environment through an influence process of 'situation' ⇒ 'organizational characteristic' ⇒ 'results' (Luthans, 1976). The early theory took for granted that an organization had as a goal to act adaptively with respect to its environment. In other words, organizational performance is mainly determined in the context of the organization's degree of fitness to exist in the external environment (Burns and Stalker, 1961; Emery & Trist, 1965; Lawrence & Lorsch, 1967). This early theory regards the interaction of an organization and its environment automatically without explaining the organizational action itself (Takahashi, 1998; Kimata, 2012). In the later period of contingency theory, an organization was regarded as not only being affected by the environment, but also cutting open the external environment in relation to the corporate research (Child, 1972; Duncan, 1973; Downey & Slocum, 1975).

According to Duncan (1972), the external environment surrounding an organization is composed of material elements and social elements. The former is shown by 'production institutions' or 'sale foothold,' and the latter is regarded as interactions among 'members or power relations.' The 'organizational functional and staff units, organizational level, organizational personnel' are components of the internal environment, and 'customers and suppliers, competitors, society / the politics, and technological' are components of the external environment (Duncan, 1972, p. 315). We interpreted 'the organizational level' to mean the layers of purpose in an organization, while 'society / the politics' is an influential factor for the market through government control or public policy, and 'technological' in the external environment refers to new technologies or technical improvement in the industrial world. Duncan's study

suggests that each organization will accomplish the economic activities by applying and interacting with various environmental elements.

Luthans (1976, p. 50) divided the outside environment into the “general environment” and the “specific environment.” The former consists of social, technological, economic, and political elements, and the latter is composed of stakeholders, that is, customers, competitors, and suppliers. Luthans’s study indicates that each organization should pay attention to which elements of the environment are important for the organization, and in what ways. Also Negandhi (1973) indicated the importance of classifying the external environment into a specific environment and a general environment consisting of society, economy, politics, law, and cultural factors, which is similar to the classification by Luthans. The specific environment, in other words, the ‘task environment,’ is selected through the organizational strategy and the process of choosing its own domain. We could suggest that the research created a new domain in organization theory, and the environment has been conceptualized as something that brings uncertainty to organizations.

Thompson’s Model

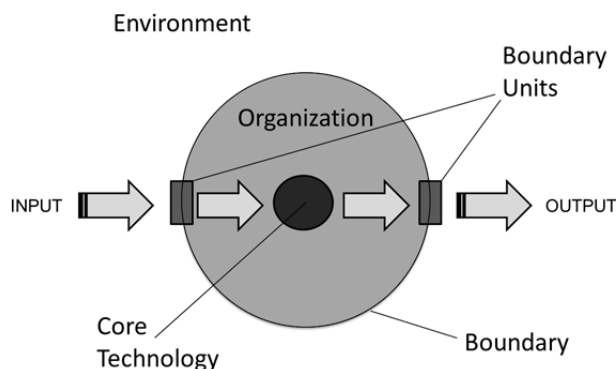
We want to emphasize that the contingency theory analyzes each organization as an open system (also known as a natural system) and not a closed system (also known as an artificial system), which interacts with internal and external environments. Central to a natural system is the concept of homeostasis, which spontaneously or naturally governs the necessary relationships among parts and activities, thereby keeping the system viable in the face of disturbances stemming from the environment (Thompson, 1967, p. 7).

Thompson’s model allows one to examine the relations among uncertainty, technology, and organizational structure. In particular, Thompson made the minute theory and proposed an organization model that is based on the reduction of uncertainty. Thompson’s model is based on several organizational theories, and it assumes organizations have a core technology. The question as to how to isolate organizations from the environmental influences by boundary units forms bottleneck to continuation and growth. In other words, under norms of rationality, organizations seek to smooth out input

and output to protect their 'core technology' from the external environment through 'buffering, leveling, and forecasting' in boundary units (Thompson, 1967, p. 23). However, there are 'contingency factors' that constrain organizational rationality²). Organizations will try extremely hard to control those external environmental influences by working in the boundary units. We could explain this inability to control the influences to a certain extent by using Thompson's model, to clarify the relations among 'core technologies' and 'contingency factors,' and to explain the stability of recycling businesses via the keyword of uncertainty. According to Thompson's model, in order for organizations to utilize maximum rationality, core technology is employed and is displayed as a system that changes inputs into outputs (Figure 1).

The key to the continuation and growth of an organization is in how to reduce uncertainty. To accomplish this, the organization must maintain flexibility with regard to the environment, and at the same time the organization must ensure certainty within itself. In this model, organizations are described as having an ambivalent existence. Thompson's model established three main types of core technology: (1) 'The long-linked technology' seen in manufacturing enterprises' mass production assembly lines, (2) 'the mediating technology' characteristic of banks or advertising agencies, and (3) 'the intensive technology' seen in general hospitals or consulting

FIGURE 1
Thompson's Organization Model



Source: Thompson (1967, 19-24).

firms. According to Thompson (1967), 'The long-linked technology' involves serial interdependence in the sense that act Z can be performed only after successful completion of act Y, which in turn rests on act X, and so on. An assembly line approaches instrumental perfection when it produces a single kind of standard product, repetitively and at a constant rate.

On the other hand, various organizations have 'the mediating technology,' which involves the linking of clients or customers who are or wish to be interdependent. A commercial bank links depositors and borrowers. Complexity in this technology comes not from the necessity of having each activity geared to the requirements of the next but rather from the fact that this situation requires operating in standardized ways. 'The intensive technology' is a custom technology, being drawn upon to achieve a change in some specific object, but the selection, combination, and order of applications are determined by feedback from the object itself. This technology is seen most dramatically general hospitals. At any moment, an emergency admission may require some combination of dietary, x-ray, laboratory, and other services. Which service will be provide, and when it will be provided, will be determined based on evidence about the state of the patient (Thompson, 1967). Through the combination of types of core technology, the organizational pattern and core technologies are established. Also, in the boundary units with the environment where inputs and outputs are assigned, the buffering that comes from the temporary storage of raw fuels and products, as well as devices for standardization, is intended to regulate the contingency factors that define the organization. The present research follows Thompson's model, whereby the elements of the companies' recycle works inputs and outputs will be arranged. After bringing to light the characteristic contingency factors at the boundary units, through the comparison and examination of the core technologies, the characteristics of the structure of recycling enterprises will be made clear. Although a large number of research have been carried out into the applications of contingency theory for the modern firms, little is explained about recycling business.

METHODS

Interview methods are broadly divided into the directive method and the nondirective method. The present study employed the

nondirective interview method in order for us to clarify and explore a few specific aspects of the events. It has been pointed out that the nondirective method has some disadvantages; for instance, the content of the interview questions tends to fall into a stereotype, and the results can be influenced by the skills of the interviewer. In order to ensure the reliability of the interview method and the validity of the results, Yin (1994) emphasized (1) 'maintaining the chain of evidence' (2) 'creation of interview database,' and (3) 'using multiple sources of evidence'. The present study was conducted based on these three principles proposed by Yin, so as to avoid possible demerits caused by the nondirective method. We created interview database and expressly confirmed the facts to every subjects by telephone for securing the reliance on the chain of evidences. Interview items were based on the following points (Table 1).

Regarding the samples, it was imperative to include a variety of recycling businesses, and a fundamental condition was set to include businesses that handle different types of waste material. To collect this data, information was collected through newspaper articles and the Internet. Over 20 companies declined our request to provide interview data, stating that their technologies are proprietary in

TABLE 1
Questionnaire Items for Recycling Businesses in Japan

	Questionnaire item
1	Business activities: Please tell me about your factory's main business. How is the recycling business positioned?
2	Input: Please tell me the type and weight, price, the source of waste materials which ones your factory processes.
3	Output: Please tell me about the type and quantity, market price, and the location where the recycled raw materials and fuels are used, and the recycled product obtained with the recycling business.
4	Core technology: Please tell me about your factory's core technologies and their uses.
5	Sub technology: Please tell me if there are any newly developed technologies with the start of a recycling business.
6	Contingency factor: Please tell me about any external factors in Input or Output that your factory has difficulty controlling in undertaking the recycling business.

almost every factory, and as a result the sample does not retain statistical objectivity. Because of this, the most important issue for future research is to increase the sample size and perform additional examinations of the data. Our interviews were conducted by visiting the manager and production engineering person in charge of recycling factories for 3 hours from 4 hours all across Japan between the fall of 2004 and the spring of 2007.

RESULTS

The work of recycling businesses can be broadly defined as aiming to use waste materials inside or outside the production point to make raw fuels, raw materials, and finished products. Our samples of Recycling Business are in Table 2.

TABLE 2
Our Samples of Recycling Businesses

Company (The factory location)	Main business (company's size)
Company A (Tokyo)	Recycling (Independent venture)
Company B (Tokyo)	Recycling (Independent venture)
Company C (Osaka)	Recycling (Independent venture)
Company D (Saitama)	Recycling (Independent venture)
Company E (Saitama)	Recycling (Independent venture)
Company F (Osaka)	Recycling (Independent venture)
Company G (Chiba)	Recycling (Independent venture)
Company H (Chiba)	Iron-Making (Large Scale)
Company I (Fukushima)	Smelting (Large Scale)
Company J (Chiba)	Cement (Large Scale)
Company K (Ibaraki)	Chemical (Large Scale)
Company L (Mie)	Ceramic (Large Scale)
Company M (Mie)	Automobile (Large Scale)
Company N (Tochigi)	Food (Large Scale)
Company O (Kanagawa)	Alcohol (Large Scale)
Company P (Tokyo)	Beverage (Large Scale)

Place names in parentheses are the locations of the manufacturing points. Recycling businesses by large-scale companies are examples of diversification (Company H to P). Companies A-G are independent venture companies created to perform recycling work as

their main business, and companies H-P are either large-scale companies or are connected to large-scale group companies that diversified their existing manufacturing concerns to include recycling. Table 3 examines the input elements of 16 companies.

TABLE 3
The Input Materials in the Recycling Businesses

Input		
	Waste Material: the type, weight and source	Virgin Materials
A	* Carpets (3,000t/year), business offices	
B	* Mixed metal waste (33,000t/year), OA equipment leasing company and "pachinko" enterprises, etc.	
C	* Magnetic media (20t/year), government offices, electrical machinery manufacturer, etc.	
D	* Fish viscera and bones (150,000t/year), fresh fish stores and supermarkets	
E	* Old paper, resin (100,000t/year), factories and business offices within a 100km radius	
F	# Wooden palette (4800 m ³ /year), electrical machinery manufacturers, etc.	
G	* Construction sludge (500-700t/day), * Abolished tires (20t/day), building constructors, etc.	
H	* Resin containers (64,000t/year), local governmental bodies	Coal
I	* Fragmented refuse of scrapped cars, 144,000t/year, automobile recycling manufactures, etc.	Coal
J	* Incinerated ashes (70,000t/year), garbage incineration facilities for local governmental bodies	Limestone, etc.
K	# Resin containers (Styrene foam), 2200-2300t/year, fish markets and household appliance manufacturers	Resin materials
L	† Tile waste (600t/year), at the Mie plant * Pottery-industry waste, liquid crystal glass waste, sewage sludge (2,700t/year), surrounding factories and local governmental bodies	Clay

TABLE 3 (Continued)
The Input Materials in the Recycling Businesses

Input		Virgin Materials
	Waste Material: the type, weight and source	
M	† Water solubility paint sludge (130t/year), at the Mie plant * Chaff and food waste (90t/year), surrounding farmhouses and schools.	
N	† Eggshells (970t/year), † Eggshell membranes (60t/year), at the Tochigi plant	
O	† Beer waste (260,000t/year), † Surplus yeast (10,000t/year), at all own domestic plants	
P	† Tea husks (40,000t/year), at all own domestic plants	

Notes: *: indicates reverse compensation items (i.e., the companies receive money to remove and process waste materials); #: indicates items with value (i.e., the companies pay money to get waste materials), † : indicates items with no transaction cost.

Looking at the inputs, we see that in contrast to Companies A-G, which only use waste products from outside of factories, Companies H-L use waste products in addition to virgin materials, and Companies L-P use waste products that come from their own factories. In this respect, the companies' inputs differ from one another. Looking at Companies A-M, which use outside waste products, with the exception of Companies F, K, all receive reverse compensation (i.e., the companies receive money to remove and process waste materials). For example, J accepts the high hazardous incinerated ashes from local governmental bodies exchange for about 40,000 yen charge per t. A special characteristic can be seen in their income through inputs. Companies N-P, which only uses in-house waste, of course do not see this form of income. Moreover, especially the recycling business of Companies D, E, I and O, it turns out that the amount of use over 100,000 t/year, are the larger ones although based also on the kind of waste materials.

In the outputs, we see that among independent Companies A-G, Companies A-D create raw fuel material as an intermediary product, and Companies E and F create finished goods (Table 4).

TABLE 4
The Output Materials and Products in the Recycling Businesses

Output		
	Raw Fuel or Material	Final Product
A	# Resin (Vinyl chloride), 50-60%, for Carpet manufacture, * Other resin (40-50%, to land reclamation)	
B	# Metal, precious metals, * resin, wood chips (to a Metal refinery)	
C	# Resin (Polycarbonate), 80%, for magnetic media manufacture, * Other resin and metals (20%, to other recycling manufacture)	
D	# Fish oil (Collection rate for injection: 23-24%), # fish powder (Collection rate for injection: 8%), for market	
E		# Solid fuels (Not less than 90%), To iron-manufacturers, lime manufacturers
F		# Charcoal (Collection rate for injection: 12-13%), to Electrical machinery manufacturer, etc.
G	Use in plant, fuel substitution	# Roadbed materials (Collection rate for injection: 27-38%), to an airport contractor
G	Use in plant, fuel substitution	# Roadbed materials (Collection rate for injection: 27-38%), to an airport contractor

TABLE 4 (Continued)

Output		
	Raw Fuel or Material	Final Product
H	Use in plant, coke substitution	
I	Use in plant, fuel substitution	
J		# Recycling cement, for the market
K		# Packing materials (85%), for household appliance manufacturers
L		# Recycling tiles (Including rate of recycled goods: 35%), for the market
M		# Compost (including rate of recycled paint: 20%), for the market
N		# Foodstuffs (70%), compost (30%), for the market
O	# Feed material (90%), # Health food material (10%), for the market	
P	# Compost material, # Feed material (86%), for the market	

Notes: * indicates reverse compensation items (i.e., the companies pay money for other recycling manufacture to be burned or buried the waste materials); # indicates items with value (i.e., the companies receive money for selling waste products). %: indicates an approximately rate of according to utilization for the amount weight of waste injections.

Company G creates both raw fuel and finished goods. Among these companies, A-C, in addition to the production of intermediary and finished goods, have residuals that must be consigned to outside to be burned or buried. As these amounts are not small, there is a tendency for large costs to be generated by the outputs. Regarding Companies H-L, Companies H and I use all manufactured goods as in-factory fuel or coke substitutions, while Companies J-L sells recycled products as part of the existing manufacturing work lineup. Because of this, these companies do not have to cultivate a new channel for

the output, in contrast to independent Companies A-G and large scale Companies M-P. Considering the outputs, in the former category there are companies that require the cultivation of new sales channels (A-G, M-P) and those that do not (H-L). Moreover, from the standpoint of inputs, they can be divided into companies that handle waste products from the outside (Companies A-M) and companies that use in-house waste products (Companies L-P).

Core Technology and Added Technology

Now we will consider the core technologies and main contingency factors that occur in the input-output boundary units. All 16 companies employ Thompson's long-link type core technology. As mentioned before, this technology is formed from multiple work processes being linked together and can be seen in the product assembly line. We see from Table 5 that there are two large differences in technologies of our samples.

The first difference can be seen in the core technology. Companies A-G utilize specialized technologies developed for the purpose of evolving the recycling industry. In contrast, Companies H-P use pre-existing technologies designed for general manufacturing in main domain. And the second difference can be seen in added technology. Companies A-G possessed no new added technology, but Companies H-L established new added technologies in the pre-stage of own core technology, and Companies M-P established them in the post-stage of own core technology. The core technologies in Companies A-G show a tendency to use manufacturing technologies from other industries. For example, Company E uses a European meat-processing apparatus for breaking resins, and Company C uses a lathing apparatus to cut magnetic media. Because of this, there were many comparatively immature cases, as the technology has to be stabilized at the same time an appropriate operation set-up value has to be computed.

Meanwhile Companies H-L businesses use core technologies from extant manufacturing methods at a sustainable level and use a mix of virgin materials and waste materials. For example, the Company I's copper blast furnace and Company L's porcelain calcination kiln were established in the 1960s. To protect those core technologies, Companies H-L are using methods such as the

TABLE 5
Core Technology and Added Technology in Its Pre- or Post-stage

	Core technology	Added technology
A	Cutting and separating machines	
B	Breaking and selecting machines	
C	Data erasing and cutting apparatuses	
D	Pressing and separating machines	
E	Breaking and casting machines	
F	Carbonizing and solidifying apparatuses	
G	Concentrating and calcination apparatus	
H	Coke furnace for iron-making	Pre-stage: heating and compacting machines
I	Copper blast furnace	Pre-stage: breaking and selecting machines
J	Cement kiln	Pre-stage: breaking and selecting machines
K	Foam making and casting apparatuses	Pre-stage: Heating and casting machines
L	Porcelain calcination kiln	Pre-stage: casting and ornamentation of apparatuses
M	Automobile assembly line	Post-stage: fermentation apparatus
N	Foods processing apparatus	Post-stage: cleaning and grinding machines
O	Beer brewing apparatus	Post-stage : drying apparatus
P	Tea processing apparatus	Post-stage : storage apparatus

Notes: "Pre-stage" indicates the added technologies were established at the pre-stage of the core technology itself. "Post-stage" indicates the added technologies were established at the post-stage of the core technology.

introduction of equipment to stabilize the quality of waste materials, there are cases where the core technology involves dangerous consequences, but which have made comparatively stable operations possible. Company H has developed technology which makes plastic scraps into a uniform size, and Company L has developed a technology to finely grind liquid crystal display panels and blend the appropriate amount with virgin clay materials. Furthermore, Companies M-P, by tying additional technologies for recycling work to the post-process end of the existing manufacturing line, in addition to not being exposed to the risk associated with Companies H-L's core technologies, they also showed a trend of stability in their operations.

Multiplicity of Contingency Factors

Next, we will consider contingency factors in inputs and outputs. In Companies A-G, there were many cases in which multilayered contingency factors were present in both the input and the output parts of the operation. In the inputs, it was found that with the exception of Company D, which had constructed its own collection route, all cases had difficulties in controlling amounts of inputs taken in. Moreover, Companies B, D and F had to take several operational measures against the differences in physical properties of waste materials. In Company D the difficult contingency factor was a bad smell in the processing factory because fish viscera and bones were the waste materials with early decomposition (Table 6).

In Companies H-P, Companies M-P showed a trend of stability in their inputs. This is because the waste materials they use are from inside the factory, and in addition to having quality stability, they also have much accumulated data regarding the composition and characteristics of the waste materials. As the amount generated is easily estimated, there were few input contingency factors found. On the one hand, in Companies H-P the main contingency factors are in the inputs, and more than quantity, quality is the issue. The waste materials used as raw materials vary greatly in composition, and the inability to control the introduction of substandard foreign materials was seen in almost all cases. Also, there are cases where the core technology involves dangerous consequences. In the cases of Company I, which uses the fragmented refuse of scrapped cars as fuel, and Company J, which makes cement using incinerated ashes, there were contingency factors such as the amount of chlorine

TABLE 6
Main Contingency Factors in Inputs and Outputs

Main contingency factor		
	In inputs	In outputs
A	Rapid changing of waste materials volume	Customer exploitation, quality of recovered materials
B	Changing of waste materials volume, the differences in physical properties	
C	Changing of waste materials volume	Customer exploitation, quality of recovered materials
D	The differences in physical properties, the problem of bad smell	Rapid changes in market price
E	Rapid changing of waste materials volume, mixing in of foreign objects	Quality of recovered materials
F	Changing of waste materials volume, the differences in physical properties	Commodity value, customer exploitation
G	Rapid changing of waste materials volume	Customer exploitation
H	Mixing in foreign objects	
I	The fall in heat quantity due to the moisture, chlorine problem	
J	The differences in physical properties, mixing in foreign objects, chlorine problem	
K	Mixing in foreign objects, change in volume of waste material	
L	Instability in the type of outside waste materials	
M		Commodity value, quality of recovered materials
N		High commodity value
O		High commodity value
P		Commodity value, customer exploitation

contained by the combustion of vinyl chloride that far exceeds permitted levels, and acid eating the primarily used apparatuses. In addition, as it occurred to the dioxin generating problem, Companies I and J had taken countermeasures against it.

With the outputs, in Companies A-G, contingency factors are seen by all except for Company B, in many cases the quality of the processed and collected raw fuels or raw materials, recycled products were insufficient for commodity value or quality of recovered materials (In Companies A and C, E and F). In instances such as Company F, which carbonizes used wooden pallets to sell as products for air fresheners, the sales volume has already reached its peak, and maintaining earnings proved difficult. Exploiting new customers was the large contingency factor for Companies A and C, F and G. Also, Company D, which sells recycled fish oil and powder, has competed in the general fish oil and powder market that the price rapidly fluctuated. Conversely, in Companies H-P, a characteristic of companies H-L is their lack of an output contingency factor. Companies H and I use all recycled raw fuel for their own factories, and the other companies' development corresponds to existing product lineups, thus removing the necessity of cultivating a new sales channel.

In contrast to the outputs by Companies M-P, a very similar contingency factor was found in all companies. As the items to be recycled are all leftovers from the extant manufacturing processes, the main question is whether a marketable recycled product can be made. Among food and alcohol makers such as Company N, which recycles eggshells to make calcium enhancement agents, and Company O, which makes food products from surplus yeast and beer waste, cases were seen where the output contingency factors were suitably dealt with. They are raising the 300 million yen/year or more sales by the recycled raw materials or recycled final products. From the above thing, in case of we define multiplicities of contingency factor as both the input contingency factor and the output contingency factor, it was seen primarily in Companies A and C-G, while in other companies those tendencies were not readily visible.

DISCUSSION

In light of the facts of in the aforementioned section, we suggest first that recycling companies can be divided into three categories

based on the differences in technology used, as well as from the differences in input and output contingency factors. Those companies that almost all undergo multiplicities of contingency factors and those that employ specialized technologies for recycling businesses are classified as Type A (Companies A-G). Moreover, those companies that use pre-existing technologies and undergo input contingency factors are labeled as Type B (Companies H-L). Finally, cases that used waste products from inside the manufacturing point and undergo output contingency factors are called Type C (Companies M-P). Also, in the view of additional technology, it founded without Type A. It is reasonable to suppose that this typology is applicable under our samples (Table 7).

As mentioned above, Type B and Type C companies are both the products of diversification by large. Type B companies use general manufacturing core technologies in their recycling work. In contrast, Type C businesses do not use core technologies directly. However, the input boundary activities of Type B companies take a follow-after format; also a tendency was seen in Type C companies to establish new additional technologies in succession with core technologies. The question which we must consider here is why no tendency was seen

TABLE 7
Sorting the Company Types According to the Core Technologies, Sub Technologies, and Contingency Factors

	Core technology	Additional technology	Contingency factor
Type A	Specialized for recycling business	None	Multiplicity (both in input and in output)
Type B	Pre-existing for main business	Established at the pre-stage of core technology	Mainly in input
Type C	Pre-existing for main business	Established at the post-stage of core technology	Mainly in output

Notes: Type A: A to G companies, Type B: H to L companies, Type C: M to P companies.

for contingency factors to multi-tier within Type B and Type C companies, which are diversified parts of large corporations.

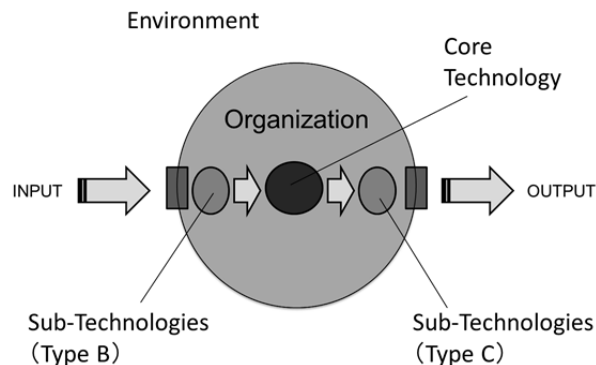
The Structure of Recycling Operations

Although the present research was limited to a small sample of only 16 companies, we believe we identified some tendencies that answer above question. As seen previously, the commonality between Type B and Type C companies is the fact that they both used traditional core technologies accumulated over long years of product manufacturing to develop their recycling businesses. In Type C businesses that mainly use internal waste products, no input contingency factors were seen, and it is easy to see why only output contingency factors were confirmed. But why were there no multiplicity of contingency factors found in Type B companies, which share a commonality with Type A companies, in that they both procure waste materials from external sources?

The reason for this lies in the fact that they recycle waste materials into raw fuel for use in factories and develop recycled products for extant product lineups. In the course of our argument it should have become clear that to absorb the output uncertainty meant long-term cultivation of the manufacturing operation. Also, input contingency factors are rendered stable by the use of core technologies that were made mature over many years, and they were additionally improved and maintained with the single purpose of developing the recycling business. Also worth mentioning is the fact that in Type B and Type C companies, in addition to the isolation of the core technologies from input and output uncertainties, the generation of additional technologies (hereafter referred to as sub-technologies) have become indispensable. These relationships are shown in Figure 2.

It is important to keep in mind that the functions of the sub-technologies employed by Type B companies and Type C companies differ. The former regulates the quality of waste materials, while the latter imparts the value of manufactured goods to waste products. Originally waste products were the residuals of manufacturing, and while the hurdles for Type C sub-technologies are very high, the hurdles are comparatively low for Type B sub-technologies, as they are based on core technologies developed over many years. Compared to the manufacture of ordinary goods, many cases were

FIGURE 2
The Structure of Recycling Operations Stemming from Diversification



seen of recycling businesses experiencing reversals in the areas of costs and sales. In regular manufacturing, costs are borne out in the input stage, and sales are achieved with the output products. In contrast to this, in the recycling business, the basic structure is one of the sales being achieved in the input stage through the collections of waste materials, and costs emerge in the output stage due to the necessity of processing the residuals of the factory's detoxification/recycling process.

What can be said based on the constraints of the limited sample size of this research is this: in order for these types of recycling businesses to ensure economic efficiency, they must determine how to change waste materials into recycled raw fuels and raw materials, recycled products at the same time they are adding value to them. Thus we have found that for the independent ventures representing Type A companies to expand and grow the business of recycling in the future, they must, as was seen in Type B companies, simultaneously improve the maturity level of their core technologies and ensure sales in the output stage. We suggest that this is the major crossroads for success in the Type A companies.

CONCLUSION

In this study we examined the relationship between the technology of modern recycling companies and contingency factors

incurred by the environment, based on Thompson's uncertainty reduction model. Although this research employed a limited sample size of interview results, multiplicities of contingency factors were seen in the independent Type A companies, suggesting comparative difficulties for the stable development of the business. On the other hand, in recycling businesses created as a diversification of large companies, the additions of sub-technologies at the pre-stage and the post-stage of the core technology showed a trend of reduction of contingency factors. Within Type B companies, stable business development was shown through the use of sub-technologies to deal with input contingency factors and absorption of output contingency factors through the use of manufacturing techniques and sales channels cultivated over many years.

So, to summarize, it can be said that our research yielded two results. Our fact findings have not been pointed out until now and suggest a new route for companies to enter the recycling business today. This is the first result of this research. The second, through the addition of the key term "sub-technology," we propose that Thompson's model could be expanded and used as a framework to understand modern recycling business. In other words, our results of research could be bridging between theory and practice to apply the framework of the contingency theory to present-day company's activities. We would now like to go on to develop our framework by extending original investigations to other Japanese recycling businesses. Also, a foreseeable extension of this research would be to include comparisons with recycling businesses in United States of America and European Union.

NOTES

1. This work was supported by KAKENHI (22530413).
2. Detailed information regarding the contingency theory can be found in Nonaka et al. (1978).

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PSYCHOLOGICAL CONTRACTS, CAREERISM, AND GOAL ORIENTATIONS

Kristian F. Braekkan and Katherine A. Tunheim*

ABSTRACT. Psychological contracts are subjective perceptions about exchange agreements between employees and employers. Through surveys of 256 graduating college seniors with recently accepted job offers, beliefs regarding employment obligations were investigated. Consistent with findings by Rousseau (1990), new hires' perceptions of employee and employer obligations were interrelated and consistent with either transactional or relational contracts. Further, while expected tenure with the first employer was related to relational contracts, "careerism" was negatively related to new hires' beliefs in a relational contract and positively related to a transactional contract with an employer. The results also revealed that goal orientations moderate the relationship between relational contracts and careerism. Specifically, the results indicate that the relationship was more strongly negative in individuals with high mastery orientation. The findings in this study therefore indicate that new hires' attitudes are shaped by both explicit and implicit promises and by individual characteristics such as goal orientations.

INTRODUCTION

It has been suggested that the psychological contract is the key factor influencing attitudes among employees (Lee & Liu, 2009; Raja, Johns, & Ntalianis, 2004). Although this concept can be traced back to the 1960s when it emerged as a footnote in Argyris (1960) book on organizational behavior, research on psychological contracts

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emerged as a major field in management and applied psychology outlets in the 1980s and 1990s in response to the organizational changes that took place during these decades and which transformed the traditional employment relationship (Freese & Schalk, 2008).

More than twenty years have passed since Rousseau (1990) examined the relationship between new hires' perceptions of own and organizational obligations and career motives. The study identified how different psychological contract content, transactional or relational, impacts individual perceptions of mutual obligations in the employment relationship. Rousseau found that perceptions of employee and employer obligations were interrelated and clarified the distinction between transactional and relational contracts. She further found that new hires' perceptions of relational obligations to the employer were positively related to expected organizational tenure, but also a negative relationship between "careerism" (e.g., viewing employment as a stepping-stone for future opportunities) and perceived obligations.

The purpose of this study is to replicate the work performed by Rousseau (1990). Given the changes that have taken place since the 1990s with increased competition from emerging markets, the recent financial crisis, prolonged recessionary trends, a tight job market, and the overall changing dynamics of the employment relationship (such as an aging workforce, the "millenniums" entering the workforce, and an increased use of technology in organizational communication) a replication may be warranted. This study therefore seeks to extend our understanding of the emergence of employee-employer obligations in a contemporary context. It specifically examines the relationship between new hires' perceptions of their own and their future organizations' obligations, obligations and career motives. However, in order to more fully understand why individuals develop different types of contracts, this study also examines how "goal orientations," or self-theories about the development of attributes (Dweck, 1999), impact these relationships. Previous research has established that there is a relationship between different types of goal orientations and achievement and behaviors in workplace situations (Dweck, 1986; Nicholls, 1984; Van Yperen & Janssen, 2002) and through this empirical study we seek to understand how such differences may impact the employer-employee relationship.

THEORY AND HYPOTHESES

Social exchange theory, which suggests that parties enter into relationships when they both perceive it to be beneficial to do so, is the starting point when trying to understand the nature of psychological contracts (Blau, 1964; Gouldner, 1960). A great amount of research has accumulated on psychological contracts over the last couple of decades, as researchers appear to believe that such contracts shape employee attitudes and behaviors at work (Coyle-Shapiro & Kessler, 2000; Herriot, Manning, & Kidd, 1997; Robinson & Rousseau, 1994; Robinson & Wolfe Morrison, 1995; Rousseau & Tijoriwala, 1999; Turnley & Feldman, 2000).

Although scholars have disagreed upon a clear definition of what a psychological contract constitutes, most work on psychological contracts cite the work of Denise Rousseau (e.g., 1989, 1990, 1995, 2000). Rousseau (1995) defined psychological contracts as “individually held perceptions regarding exchange agreements between employees and organizations.” Such perceptions are based on promises made, accepted, and relied on between employees and organizations, or someone acting on their behalf (Conway & Briner, 2005) and are generally considered to be of a subjective nature as employees process and incorporate promises into their own unique psychological contracts (Wade-Benzoni, Rousseau, & Li, 2006).

Studies on psychological contracts have typically differentiated between transactional and relational contracts when identifying contract content. Transactional psychological contracts are characterized by highly specified performance terms, narrow scope, and finite time periods (Robinson, Kraatz, & Rousseau, 1994), while relational contracts are based on good faith and fairness, and consist of the exchange of personal and socio-emotional resources in addition to purely economic resources (Rousseau, 1990; 1995).

Transactional contracts assume that the relationship between employer and organization is clearly stated and defined, and that there are no implied expectations that the parties will contribute beyond the specified terms. In contrast, with relational contracts the employer is concerned about the employee’s well being in return for contributions on assignments that go beyond previous arrangements and experiences (Tsui, Pearce, Porter, & Tripoli, 1997). As the individual psychological contract is shaped by multiple contract makers and with potentially different promises being made, the

expectations of what is being promised may vary greatly from person to person, even within the same organization. Consistent with Rousseau's (1990) findings, we do, however, expect to find that perceptions of employee and employer obligations will be inter-related:

Hypothesis 1: New hires' perceptions of employee and employer obligations will be interrelated and consistent with either transactional or relational contracts.

In return for employer investments in training and development, employees with relational contracts are typically willing to adjust to new and challenging performance requirements and embrace opportunities for career development provided by the employer (Rousseau, 1995; Millward & Hopkins, 1998; Conway & Briner, 2005). Since they also tend to view work arrangements as open-ended, it would be natural to assume such employees would see the employment relationship as ongoing and dynamic as they are promised opportunities for professional and personal growth. We therefore expect, consistent with Rousseau (1990), that employment length with an organization will be associated with the obligations they believe exist between them and their first employer following graduation. We therefore hypothesize:

Hypothesis 2: Expected tenure with the first employer following graduation is positively related to a perceived relational contract with the employer.

Additionally, targeting a specific organization for employment based on opportunities for professional and personal growth would most likely suggest that the employee hopes to develop a relationship with that employer. We therefore hypothesize:

Hypothesis 3: A new hire's desire for employment in a particular organization is positively related to perceived relational contracts.

Given the uncertainty associated with entering the workplace for the first time, particularly in a tight job market, new hires may not, however, view their first job as one that they will stay with for an extended period of time. As frequently addressed in mass media, graduating college seniors have been told that not only will they have multiple jobs in the years ahead, but even multiple careers. It would therefore be natural to assume that some new hires will seek out employment opportunities with future external mobility in mind.

Rousseau (1990) labeled such behavior *careerism*, and she defined it as behavior where employees view their employment with a particular organization as a stepping-stone to better jobs elsewhere. She further suggested that employees exhibiting such behavior are adopting a transactional view of their employment since they perceive few obligations to exist between themselves and the employing organization. Consistent with Rousseau's work, we hypothesize:

Hypothesis 4: Careerism is negatively related to new hires' belief in a relational contract and positively related to a transactional contract with the employer.

The extent to which new hires seek to take advantage of opportunities offered to them by the hiring organization or use it as a stepping-stone could be explained by their *goal orientations*. Dweck (1999) defined goal orientations as stable personality characteristics generated through "self-theories" about the nature and development of individual attributes such as intelligence, personality, abilities, and skills. Research on goal orientations suggests that there is a relationship between different types of goal orientations and achievement in workplace situations (Dweck, 1986; Nicholls, 1984; Van Yperen & Janssen, 2002). Various definitions have been used to distinguish between different goal orientations, but we will use Van Yperen and Janssen's (2002) language and distinguish between a *performance orientation* and a *mastery orientation*. The former describes an inclination toward establishing superiority over others, while the latter describes efforts directed at "developing competence, gaining skills, and doing one's best" (Van Yperen & Janssen, 2002; p. 1181). A conceptual differentiation between the two orientations suggests that individuals with a performance orientation view intelligence, or skills and abilities, as fixed, while individuals with a mastery orientation view it as something that can be developed, as suggested in Dweck's (1999) work.

A practical implication of these two distinct goal orientations would be associated with how they approach challenges and opportunities associated with employment. Individuals with a performance orientation will not believe that exerting effort at work will lead to improved performance since they view abilities and talents as fixed and internal entities. In contrast, individuals with a mastery orientation view the same entities as dynamic and that exerting efforts will lead to improved performance (Van Yperen &

Janssen, 2004). This dynamic view of performance will most likely impact those who view the employment relationship as on going and open ended to a greater extent than those who view it as a purely economic transaction. After all, individuals with relational contracts are expected to adjust to new and challenging requirements and opportunities for training and development, (Rousseau, 1995; Millward & Hopkins, 1998; Conway & Briner, 2005). Similarly, individuals with a performance orientation will most likely not embrace these opportunities, as they do not believe that entities such as skills and abilities are possible to change (Dweck, 1999).

Based on differences in goal orientation, we do not expect individuals with a performance-orientation to seek out employment situations with a high degree of investment in human capital, whereas those with a mastery orientation will value such opportunities. We therefore hypothesize:

Hypothesis 5: Mastery orientation will moderate the relationship between relational contracts and careerism. The relationship will be more strongly negative with high mastery orientation.

METHODOLOGY

Sample and Procedure

The participants in this study consisted of 256 graduating seniors from a state university on the east coast of the United States. All subjects had secured employment following graduation and they were currently enrolled in their last semester of course-work when the collection of data took place. The subjects were told that the study aimed to better understand the employer/employee relationship. Three hundred and fifty surveys were distributed to students who had identified themselves as “employed following graduation” and 256 (response rate = 73%) complete and useable surveys were returned from the students. Of the respondents, 55% were female and 45% were male. The mean age was approximately 21 years (SD = 1.1).

Instruments

Careerism

The questionnaire contained five questions measuring expectations about changing employers many times during one's

career. These questions were identical to those utilized by Rousseau (1990), and it utilized a 1-7 scale (from “strongly disagree” to “strongly agree”). Items included: (1) *I took this job as a stepping-stone to a better job with another organization*, (2) *I expect to work for a variety of different organizations in my career*, (3) *I do not expect to change organizations often during my career* (reverse scoring), (4) *there are many career opportunities I expect to explore after I leave my present employers*, and (5) *I am really looking for an organization to spend my entire career with* (reverse scoring). The items yield an alpha reliability of 0.78.

Specific Company

The extent to which the respondents wanted a job with a specific organization when going through the recruitment process was measured with the same two questions used by Rousseau (1990) on a 1-7 scale (from “strongly disagree” to “strongly agree”). Items included: (1) *I specifically set out to get a position with this organization* and (2) *I really wanted a job with this particular employer*. The items yield a scale reliability of 0.80.

Expected Tenure

The respondents were asked to indicate how long they expect to remain with their first organization using the following scale: (0) less than a year (1) 1 year (2) 2 years (3) 3 years (4) 4 years (5) 5 years or more.

Obligations

Consistent with Rousseau (1990), the respondents were asked to indicate what they believed to be their obligations to their future employer and the employer’s obligations to them. Employee obligations were measured with eight items using a 1-7 scale (from “strongly disagree” to “strongly agree”), and employer obligations were measured with seven items using a 1-7 scale (from “strongly disagree” to “strongly agree”). All items are included in Appendix A. The items yield scale reliabilities of 0.82 and 0.79 respectively.

Goal Orientation

Goal orientation was measured with the items utilized by Van Yperen and Janssen (2004). Eleven items identified *mastery*

orientation and *performance* orientation using a 1-7 scale (from “strongly disagree” to “strongly agree”). All items are included in Appendix B. The items yield scale reliabilities of 0.90 and 0.91 respectively.

Gender

Respondents' gender were recorded and dummy-coded (0=male, 1=female) in order to control for the possibility that there could be gender differences.

RESULTS

The zero-order correlations in this study are provided in Table 1. The correlations were calculated in order to test hypotheses 1-4.

Hypothesis 1 proposed, consistent with Rousseau's (1990) original study, that new hires' perceptions of employee and employer obligations would be interrelated and consistent with either transactional or relational contracts. The results revealed a positive and statistically significant relationship between employer and employee transactional contract obligations ($r=0.41$, $p<0.05$), and a positive relationship between employer and employee relational

TABLE 1
Zero-Order Correlations for Obligations, Motivations, and Goal Orientations

	1	2	3	4	5	6	7	8
Employer Contract								
(1) Transactional								
(2) Relational	0.07							
Employee Contract								
(3) Transactional	0.41*	0.09						
(4) Relational	0.12	0.44*	0.12					
(5) Careerism	0.25*	-0.24*	0.19*	-0.44*				
(6) Company specific	-0.09	0.11	0.02	0.11	-0.15*			
(7) Expected tenure	-0.05	0.13*	0.07	0.26*	-0.56*	0.18*		
(8) Performance orientation	0.23*	0.02	0.22*	0.26*	0.08	0.11	0.25*	
(9) Mastery orientation	0.12	0.09	0.15*	0.30*	0.02	0.14*	0.31*	0.36*

Note: * $p < 0.05$.

contract obligations ($r=0.44$, $p<0.05$). Thus, Hypothesis 1 was supported.

With respect to Hypothesis 2, we expected tenure with the first employer following graduation to be positively related to a perceived relational contract with the employer. Consistent with the hypothesis, the results revealed a positive and statistically significant relationship between expected tenure and relational contracts ($r=0.26$, $p<0.05$). Thus, Hypothesis 2 was supported.

Hypothesis 3 suggested that a new hire's desire for employment in a particular organization would be positively related to perceived relational contracts. The results, however, were consistent with Rousseau's (1990) findings, and no statistically significant relationship existed ($r=0.11$, $p>0.05$). Thus, Hypothesis 3 was not supported.

Hypothesis 4 suggested that careerism would be negatively related to new hires' belief in a relational contract and positively related to a transactional contract with the employer. The results were consistent with those in the original study by Rousseau (1990). Careerism was negatively and statistically significant related to relational contracts ($r=-0.44$, $p<0.05$), and positively related to transactional contracts ($r=0.19$, $p<0.05$). Thus, Hypothesis 4 was supported.

With respect to Hypothesis 5, multiple regression analysis was used. This hypothesis proposed that mastery orientation will moderate the relationship between relational contracts and careerism, and more specifically, that the relationship will be more strongly negative with high mastery orientation. In order to assess the interaction effect, a moderated regression was performed, consistent with Aiken and West (1991), where the variables were centered at their means in order to make the results more interpretable. As shown in Table 2, there was a significant interaction between mastery orientation and careerism in predicting relational contracts ($\beta = -.58$, $p < .05$). Hence, the negative relationship between careerism and relational contracts was particularly strong among respondents with high mastery orientation. Thus, Hypothesis 5 was supported (labeled "H5a" in Table 2). Although used as a control variable, gender differences were not statistically significant.

Since mastery orientation and performance orientation were relatively strongly correlated ($r=0.36$, $p<0.05$), we decided to perform a supplementary analysis and examine whether mastery and performance goal orientations may interact in their effects. Consistent with Aiken and West (1991), predictor variables were centered and we calculated the cross-product term and regression statistics. This analysis revealed that mastery and performance orientation interacted on the dependent variable (results from this supplementary analysis is labeled “H5b” in Table 2). These results suggest, consistent with Janssen and Van Yperen (2004), that trying to develop mastery is not inconsistent with trying to outperform others.

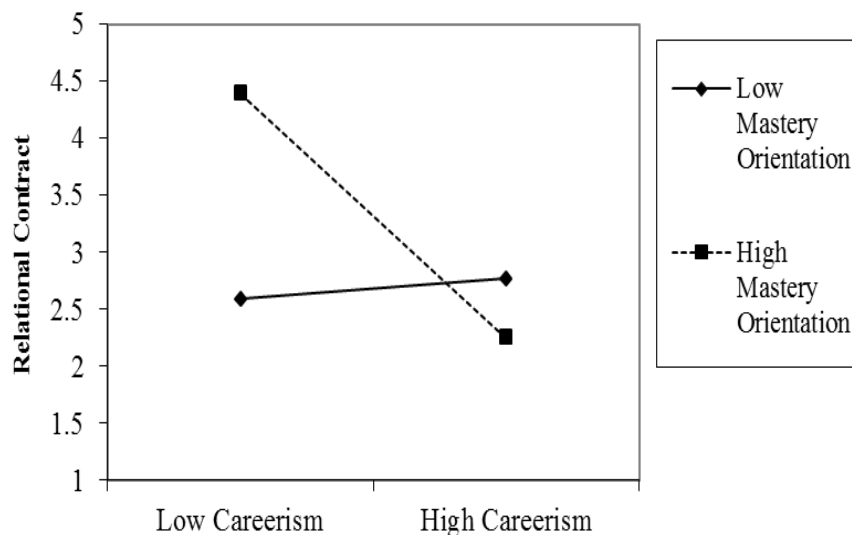
TABLE 2
Results of Regression Analyses

Control Variables	Dependent Variables	
	Relational Contract (H5a)	Relational Contract (H5b)
Gender	-.07	-.07
Main effects		
Careerism	-.49*	-.49*
Mastery Orientation	.32*	.32*
Interaction		
Careerism x Mastery	-.58*	
Careerism x Goal ^a		-.61
F	52.43*	60.01*
Overall R ²	.66	.70
Adjusted R ²	.64	.68

Notes: * $p < .05$. Two-tailed hypothesis test. ^a Goal = mastery x performance.

As shown in Table 2 and illustrated in Figure 1, the effects of mastery orientation on relational contracts vary across levels of careerism. As Figure 1 illustrates, the negative relationship between careerism and relational contracts was particularly strong among respondents high on mastery orientation.

FIGURE 1
Moderation Effect of Mastery Orientation on Relational Contracts at Low and High Levels of Careerism

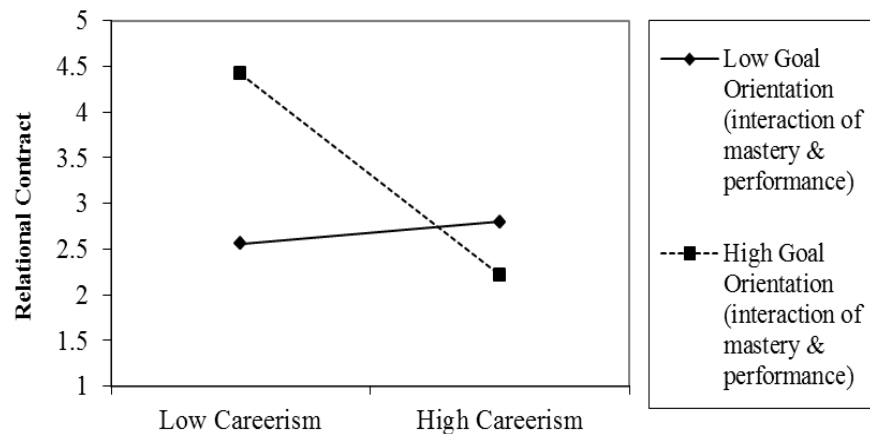


In conclusion, consistent with Hypothesis 5, there was a significant interaction between mastery orientation and careerism in predicting relational contracts (labeled “H5a” in Table 2). Following a supplemental analysis, the results also suggest that mastery and performance goal orientations interact in their effects (labeled “H5b” in Table 2) as illustrated in Figure 2.

DISCUSSION

The purpose of this study was to replicate Rousseau’s (1990) study from more than twenty years ago. Her study was an early attempt at identifying differences in perceived obligations to the employer and from the employer among recent hires. The importance of this study cannot be emphasized enough, as it paved the way for future studies examining psychological contract content. Although the psychological contract literature has evolved since Rousseau’s study which has helped turn the concept from what some critics labeled “too touchy/feely” (Tipples, 2009) into a robust construct supported

FIGURE 2
Moderation Effect of Goal (Mastery & Performance) Orientation on
Relational Contracts at Low and High
Levels of Careerism



by advanced research methods, the importance of understanding perceived expectations and obligations has not become less important. We expected to find similar patterns among contemporary college students as those observed by Rousseau. Whereas the original study utilized graduating MBA students, we utilized undergraduate students entering very tight and competitive job markets. The undergraduate students in our sample were facing one of the tightest job markets in recent history. Further, they had different experiences with technology than the subjects in the 1990 study, and globalization and offshoring of jobs to emerging markets was something that had become more prevalent in the years leading up to the point where they were on the threshold of their first job assignment. Despite all the changes that have taken place, the results were mirror images of those in Rousseau's study.

First, we found that new hires' perceptions of employee and employer obligations were in fact interrelated and consistent with either transactional or relational contracts. Specifically, employer and employee transactional contract obligations were related where those with relational obligations to the employer also endorsed relational obligations from the employer, while those endorsing transactional

obligations to the employer also perceived transactional obligations from the employer. Therefore, it appears as if new hires return obligations from the employer with “matching” responses. In other words, if the organization communicates mostly transactional elements to the new hire, they will not reciprocate beyond the specified terms. Similarly, if the organization communicates obligations as relational by nature, the new hire will be willing to contribute efforts that go beyond specified terms.

Second, we found that expected tenure with the first employer was related to a perceived relational contract with the employer. This suggests that individuals entering the employment relationship with a relational contract expect to spend a longer time with the employer than those who view the employment relationship as transactional by nature. This is consistent with the idea that relational contracts are viewed as open-ended and ongoing.

Third, we did not find support for the idea that those with relational contracts target specific organizations for employment. Consistent with Rousseau’s (1990) findings, no relationship existed between contract content, relational nor transactional, and desire to work for a specific firm. This could suggest that promises and obligations about employment conditions are communicated during the hiring phase and not in advance with first-time hires.

Fourth, we found that careerism is negatively related to new hires’ belief in a relational contract and positively related to a transactional contract with an employer. Our results revealed that careerism is more common among those with transactional contracts than those with relational contracts. This could possibly be explained by careerism and the “opportunistic” nature that is associated with such behaviors. New hires who are high on careerism would most likely not be interested in contributing “above and beyond” unless it would benefit them personally.

Fifth, we found that having a mastery orientation moderates the relationship between relational contracts and careerism. Specifically, our results indicate that the relationship was more strongly negative in individuals with high mastery orientation. Not surprisingly, we also found through a supplementary analysis that mastery and performance orientations interacted in their effects. This suggests, consistent with Janssen and Van Yperen (2004) that trying to develop new skills and abilities is not inconsistent with trying to outperform

others. Although these results indicate that a mastery orientation strengthens the negative relationship between careerism and relational psychological contracts, the results also suggest that the combination of mastery and performance orientations strengthen the relationship even further.

From a managerial standpoint, the findings in this study have several practical implications. First, it is important for organizations to recognize that several entities contribute to the creation of the contract, such as recruiters, managers, coworkers, or union representatives (Rousseau, 1995). Specifically, explicit promises are communicated prior to hiring, such as expressions of organizational policies (Ho, Rousseau, & Levesque, 2006), or post-hire when managers and supervisors communicate promises of pay raises and promotions to subordinates, during times of turmoil or change (e.g., downsizing and layoffs; Rust, McKinley, Moon-Kyungpook and Edwards [2005]), or during mergers and acquisitions (Bellou, 2007). Additionally, workers develop and possess pre-employment beliefs based on implicit promises that initiate the desire to be employed with a specific organization (Rousseau, 1995) in addition to promises realized through their perception of interpersonal treatment from their employers once they are hired (Saunders & Thornhill, 2006)

Second, perceived obligations to the employer as identified by endorsing relational psychological contract content, is associated with a desire to spend time with an organization. Considering the high cost associated with turnover, managers should be aware that individuals with relational contracts are more likely to stay with an employer for an extended period of time than someone with a transactional contract. Additionally, the relatively strong and negative relationship between careerism and relational contracts suggest that being “opportunistic” in the employment relationship is less likely to be observed in someone with a relational contract.

Third, paying attention to an individual’s goal orientation, particularly his or her mastery orientation, can reveal critical information about someone’s perceptions about the employer/employee relationship. Individuals with a mastery orientation view their skills and abilities as dynamic and will be more likely to work hard in order to improve performance (Van Yperen & Janssen, 2004). Such individuals are therefore more likely to adjust to new and challenging requirements and opportunities for training and

development, which is consistent with the idea of the relational psychological contract (Rousseau, 1995; Millward & Hopkins, 1998; Conway & Briner, 2005).

The results from this study have confirmed that Rousseau's findings were not unique to her sample and the time and place in which the study took place. Our study has also added to our understanding of the careerism/psychological contract content link by also assessing the impact of goal orientations. The design of this study, however, is also a limitation that future studies should seek to address. The data was collected cross-sectionally through self-reports so results could be biased due to common-method variance and percept-percept inflation. Further, the study did not address causality due to its use of cross-sectional data, so there is a possibility that those most aware of the employment obligations/promises are also less likely to endorse careerism. Future research would benefit from longitudinal data and/or data from multiple sources, such as managers or peers. It would also be interesting to examine whether there are industry differences, or differences between public and private firms, or between for profit organizations and government or not for profit organizations. Additionally, although the samples were of moderate sizes, future studies should use larger samples.

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APPENDIX A

Employer obligations:

- Opportunities for Promotion
- High pay
- Pay based on current level of performance
- Training
- Promises of long-term job security
- Opportunities for career development
- Support with personal problems

Employee obligations

- Work extra hours
- Exhibit loyalty to the organization
- Volunteer to do non-required tasks on the job
- Give advance notice if taking a job elsewhere
- Be willing to accept a transfer
- Refusal to support/assist the employer's competitors
- Protect proprietary information
- Spend a minimum of two years in the organization

APPENDIX B

I feel successful when...

- I acquire new knowledge or learn a new skill by trying hard
 - I acquire new knowledge or master a new skill, which was difficult for me in the past.
 - I learn something that motivates me to continue.
 - I feel I am improving.
 - I learn something that makes me want to practice more.
 - I learn something new that is fun to do.
 - I get the maximum out of myself.
 - I improve on particular aspects.
 - I master new knowledge or a new skill.
 - I perform to my potential.
 - I do my very best.
 - I perform better than my colleagues. (P)
 - Others cannot do as well as me. (P)
 - Others mess up and I do not. (P)
 - I can clearly demonstrate that I am the best qualified person. (P)
 - I accomplish something where others failed. (P)
 - I am clearly the most productive employee. (P)
 - I am the only one who knows about particular things or who has a particular skill. (P)
 - I am the best. (P)
- (P): indicates "performance orientation" items*

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