EXPLORING INDIVIDUAL DIFFERENCES AND SPONTANEOUS CHANGES IN JOBS

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ABSTRACT

This paper explores the concept of spontaneous, unsupervised changes in jobs (job crafting), in general, and the relationship of the qualities and magnitude of the changes to the individual characteristics of: cognitive ability, self-image, perceived control, and readiness to change. Job crafting relates to individuals at work, in any level of an organization, who knowingly make unsupervised changes in their jobs. This study adds to the research base of what is called job crafting as examined in the seminal work of Wrzesniewski and Dutton (2001). In this exploratory study of 58 outside salespersons we find that more than 75 per cent report engaging in job crafting in various forms. Positive, significant correlations are found between episodes of work modification and the variables of self-image, perceived control, and readiness to change.

INTRODUCTION

This study seeks to augment the developing body of research regarding what is known about individuals at work, at virtually any level of an organization, who make unsupervised, spontaneous changes in their jobs. The actions, processes and outcomes pursuant to the behavior are contained as an *episode* and the episode is labeled job crafting. Changes made in jobs are not uncommon, however, the changes, or job crafting, that are the subject of this paper are spontaneous changes made by individuals to satisfy their own, personal needs and not necessarily the needs of the organization.

As presented in this study, job crafting represents work and job change that is largely hidden from management and does not include management in decision making. That is, employees are choosing to engage in shadow job re-design that may or may not run counter to what management desires. The job changes employees make are initiated solely for their own purposes. More information about the characteristics and dynamics of job crafting will help managers learn about behavior that might either advantage or disadvantage the organization as well as other employees.

FOCUS OF THE STUDY

The seminal work of Wrzesniewski and Dutton (2001) did much to define and examine job crafting behavior. Their work offered many examples of job crafting from their own experience and the experiences of others as represented in the literature. Little empirical evidence has been associated with job crafting with regard to its frequency, and magnitude; the forms that it takes, and the individual needs and motivations that may propel this behavior. The important questions or issues that this study addresses are: (1) what are some of the quantitative and qualitative dimensions of job crafting activity in a sample of outside salespersons; (2) what forms does job crafting take in the particular context studied, (3) and, do certain individual characteristics, in this case the four variables of cognitive ability, self-image, perceived control, and readiness to change, demonstrate some relationship with actual job crafting behavior? The four variables are derived or interpreted from the work of Wrzesniewski and Dutton (2001) and the work of others (see below) that help to explain the motivations or antecedents of individuals engaged in actual job crafting behavior. In this exploratory study the variables serve as a starting place to examine the dynamics of job shaping.

From the point of view of a manager, it would seem that employees who possess the individual characteristics of positive self-image, demonstrate substantial cognitive ability, believe they have control over their work and jobs, and who demonstrate a readiness to embrace change, are normally regarded as valued human assets in the organization. At the same time, the characteristics may be regarded as possible antecedents of job crafting behavior. For example, employees with positive self-image, substantial readiness for change, and so forth, may be more predisposed to engage in job crafting behavior. As mentioned above, there is very little empirical evidence available regarding samples of employees that offers information on the dynamics of job shaping, hence the motivation for this paper.

Expressed in detail later in this work are the hypotheses of the study. We desire to demonstrate that job crafting, as defined, does occur and in a sample of employees the quantity, forms, magnitude and dynamics of the behavior can be demonstrated in meaningful ways.

There are several practical implications of this research. First, it is helpful to examine, empirically, the notion that job crafting behavior does, in fact, take place. Second, it is desirable to have some indication of the quantity and characteristics of the behavior as well as information concerning the forms the behavior takes as this information would likely add credibility to the concept and support theory-building. Finally, it should be valuable to assist managers to learn if employees are likely to engage in this somewhat creative behavior. Many managers desire that employees be creative, receptive to changes, and the like, however, it is unlikely that managers desire that creative changes in jobs and work activity be enacted without their knowledge or approval.

BACKGROUND

In their work, Wrzesniewski & Dutton (2001, p. 179) define job crafting as, ". . .the physical and cognitive changes individuals make in the task or relational boundaries of their work" There is the aspect of modifying the cognitive, relationship 'doing' part of a job purely for affecting performance and results. There is also the component that relates to one's identity with the job, that is, the relationship of one's self with the job. Part of a person's social identity is shaped by work (Brief & Nord, 1990; Ashforth & Kreiner, 1999; and Tausky, 1995). Modifications in the work may be initiated so that the individual's perception of work may be changed. Hence, the presumed identity of self may also be changed.

Work and job design are part of the responsibilities of management. Job crafting, as presented in this study, represents work and job design that is largely hidden from management and does not include managers in decision making. If management becomes sensitized to job crafting behavior the knowledge attained may lead to more efforts to control employee behavior. In some work environments additional control may lead to employee perceptions of being micro-managed, closely supervised, and so forth. Among some employees, these perceptions lead to decreased morale and lower job satisfaction (Manz & Sims, Jr., 1987).

The study of job crafting is beset with definitional and methodological challenges. On the definitional side, it is important to develop some boundaries regarding what behavior qualifies as job crafting. A useful definition or classification system would contain some objective means of discriminating among numerous behaviors so that different observers could agree on what was included as job crafting and what was not included. This may assume that some general or universal definitions or classes of the behavior could become understood and known. In the Procedures section of this paper is the presentation of a classification of the behavior, bounded by the actual work content of the study participants. The procedures used in this study to attach characteristics, bounds, and ultimately, definition, to the behavior-in-practice help establish both content and context validity for the behavior called job crafting.

We then have the issue of context or place. Some types of jobs, some job venues, and some organizations, other things being equal (e.g., interpersonal dynamics), will offer opportunities, invitations, and incentives to employees to modify their jobs. For example, the very nature of the job and the level and amount of direction and/or supervision received may influence the likelihood of job crafting activity taking place as employees perceive opportunities to make changes.

There is considerable evidence to demonstrate that job crafting does occur (Amabile, et al., 1994; Ilgen & Hollenbeck, 1992; Wrzesniewski & Dutton, 2001). While a general definition of the concept is understood, there are few known particulars regarding frequency, type, and motivation regarding the activity. In general, the same thing can be said about the effects of the job changes, that is, little is known regarding the consequences or effects of the changes. There is some information available to suggest that job crafting behavior is often thwarted by managers (see Schmoker, 2004). In a recent, exploratory study, Lyons (2006) examined self-reports of a sample of employees in the same job classification. He found that 74 per cent of the employees studied engaged in job crafting episodes. In addition, the episodes could be categorized into several discrete forms, and that 79 per cent of the sample believed they had the opportunity to modify their jobs in substantive ways. The same study reported that a measure (Krishnan, et al. 2002) of individual competitiveness correlated .53 (p value .001) with quantity of job crafting episodes.

THE IMPORTANCE OF SELF-INITIATED CHANGES IN JOB

If positive outcomes are achieved as a result of job crafting, then the encouragement and/or reinforcement of job crafting could be desirable. There is some research supportive of this idea. For example, Conti & Warner (2002) propose a model that encourages work that maximizes the use of the worker's judgment, knowledge, creativity, intelligence and initiative so that customer's needs are best served. Some of the studies of the concept of empowerment of employees such as those of Wellins, et al. (1991); and Pearson (1992); are supportive of these ideas.

However, if changes in jobs were not aligned with organizational objectives or were hostile to organizational objectives and manager needs, then the job crafting activity could become a problem for the organization, work groups, and other employees. Wrzesniewski and Dutton (2001) repeatedly state that job crafting is not necessarily performed in the service of the goals of the organization. Yet, virtually all of the examples of job crafting they cite make it clear that positive changes in performance, and other benefits to the organization accrue. They cite studies of several different occupational groups (hospital cleaners, hairdressers, design engineers, nurses, information technicians, and professional restaurant cooks) whose changed jobs benefited not only the employee by way of job satisfaction, work identity, or relationship-building, but benefited the organization as well through the provision of better services (quality & quantity), enhanced process improvements, and/or products. The exploratory study of Lyons (2006) reinforces these findings. In that study, all job crafting episodes reported were in the service of job or organizational goals and values. This is not surprising for obvious reasons.

This last point demonstrates one of the substantive difficulties of research of the type done in this study. It seems reasonable to assume that as employees self-report their experiences regarding the modification of their jobs, it is not likely that they are going to report how they shaped their job in ways that benefit them, personally, but that diminished their productivity or performance in terms of what management and the organization expects.

Adjunct to these interpretations and depending on intention and/or outcomes of job crafting, the result of the behavior could represent organizational citizenship as exemplified in the work of Podsakoff, et al. (2000). Further, behavior that leads to some work/job modifications may help an individual to accept other, or cope better with less desirable aspects of their work activities that are not readily open to job

crafting. If enhanced self-efficacy (see Bandura 1986; 1997) is part of the result or payoff of job crafting, then individual motivation may be improved. This relates especially to intrinsic motivation such as feelings of greater responsibility, achievement, or competence, as the individual believes that they are more capable, competent, or skilled, and have greater value as an employee and as an organizational participant.

Previous Research

In practical terms, there has been little empirical research directed at the crafting of jobs or work by employees. Of the research that does exist, much of it is of the observational - anecdotal variety where individuals in different organizations in various jobs were observed as they went about their normal job duties. Other research has relied on interviews of employees where specific questions were asked about job duties, changes in duties, and special initiatives to change work practices. This research is represented in the work of Benner, et al. (1996); Cohen & Sutton, (1998); Fine (1996); Fletcher (1996); Jacques (1993); and Morrison and Phelps (1999).

These studies have clearly demonstrated that job crafting does, indeed, take place and it usually takes place without the knowledge of managers or others. What has not been given much attention in the literature is the extent to which job crafting takes place in terms of frequency, type, magnitude of changes in work, and the like. Empirical research regarding the antecedents and/or individual personality characteristics relating to job crafting is practically non-existent. Further, research that has examined employee-initiated job crafting normally assumes that only employees in jobs that offer them substantial autonomy will be able to make job modifications (Ilgen & Hollenbeck, 1992; Staw & Boettger, 1990).

There is research on job design and work design and that research is focused on the actions of managers who initiate task and job changes to meet some particular need or deficiency (see, for example, Hackman & Oldham, 1980; Lyons, 2005). This research views the employee primarily as one who is acted upon and stimulated by management to work in different ways. Job crafting takes the point of view that it is the employee who is the primary actor who decides to make changes in work. In essence, the employee re-frames the job (Tausky, 1995; Ashforth & Kreiner, 1999). And, as Wrzesniewski et al.(2003) point out, this may be only part of the picture as nearly every person engaged in work is interacting with other people (e.g., customers, subordinates, co-workers) and the relationships help to form the social fabric, context, and content of the job. The interpersonal relationships help to mediate the individual's meanings of work.

As mentioned earlier in this paper, through the analysis of the literature of change at work represented in the research of Bandura, 1997; Benner et al., 1996; Fine, 1996; Ilgen and Hollenbeck, 1992; Lyons, 2006; Morrison and Phelps, 1999; Tausky, 1995; and Wrzesniewski and Dutton (2001), four forms of individual behavior seem to have particular relevance for job crafting activity. They are the four characteristics of cognitive ability, self-image, perceived control, and readiness to change. Analysis indicates that these characteristics of individual behavior may demonstrate some relationship with actual job crafting behavior. In this exploratory study the characteristics serve as a starting place to examine the dynamics of job shaping.

Hypotheses

In the following paragraphs we attempt to do two things: (1) examine the self-reports of a sample of employees to help create baseline information regarding the existence, frequency, type, and other characteristics of job crafting activity; and (2) examine relationships among employees' job crafting activities and measures of the four variables of interest (see above). The following six hypotheses are examined:

- (1) In the context and position (job) selected for study, most employees will report initiation of job crafting behavior.
- (2) More than one form or type of job crafting behavior will be evidenced.
- (3) The greater the amount of job crafting behavior/activity, the greater one's cognitive ability.
- (4) The greater the amount of job crafting behavior/activity, the more positive the expression of one's self-image.
- (5) The greater the amount of job crafting behavior/activity, the greater the expression of perceived control over one's work.
- (6) The greater the amount of job crafting behavior/activity, the greater the expression of one's readiness to change.

METHOD

Interview surveys of job holders will ascertain: (1) if they engage in job crafting behavior that is selfinitiated and not related to any direction from management, (2) how frequently such behavior occurs, (3) what forms the actual behavior takes; and (4) how participants perceive their opportunities to engage in such behavior. Regarding the interviews, a "scoring" template was created to quantify and categorize various behaviors that, taken together, represent job crafting.

Participants

The participants in this study are 58 sales representatives of a large, consumer products firm. These participants are outside sales representatives who work in various districts in a seven-state area in the Northeast and Middle Atlantic sections of the U.S. Most of their time is spent making sales calls on business, government, and other organizations. For the most part, they work with little direct contact with other organization employees. The original sample size of participants was 63; however, owing to special assignment and training, illness and other factors, complete data was available for 58 members of the group.

These particular employees were selected for this study for several reasons: (1) they all do the same, general type of work, (2) they work for the same firm and are subject to the same job requirements and conditions, (3) they were available as they are participants in a larger, longitudinal study about motivation and performance, and (4) they were selected for this study because it is assumed that as independent, outside salespersons they would have considerable opportunity to modify their jobs.

Details of the group: Men 47 (81%), Women 11 (19%); Racial composition: Asian 2 (3%), African American 6 (11%), White 50 (86%); average age of the entire group was 32 years, and average number of years working with the organization was 6.8 years. All of the participants held a college degree with 6 of the group of 58 with a community college degree; the majority had a B.A. or B.S. degree.

Procedure

Each member of the study group was interviewed, individually, using a structured interview format. None of the interviews lasted more than 75 minutes. Each member interviewed agreed to participate in the study and completed (executed) a consent form to that effect. Study group participants were assured that data analysis would consider the information they provided in aggregate only and that no individual's information would be revealed in the study's findings or results. All of the interviews took place in the spring and summer of 2005.

The same, trained interviewer conducted all of the interview sessions. A set of questions was used in a sequence of events methodological approach. This is the general approach taken by Herzberg (1957) and his associates in the research that demonstrated the two-factor theory of job satisfaction. The interviewer was trained to take notes of the interviews. Tape recording of interviews was completed as well. The notes of the interviewer were copied; the tape recorded interviews were transcribed. Once data analysis was completed, the tape recording and a copy of the recorded notes were given to each study participant. The details of the procedure are expressed in the following paragraphs.

Each one of the study participants was asked to tell a brief story of a time, within the past year, when: (1) They initiated and made some adjustment, change, modification in their work activity that was not part of any formal specification or prescription of how their work should be done nor part of any training or from any direct supervision received regarding work performance. The change could be of any type, size, scope, and so forth, however, in their minds the change should represent a substantial influence on their work activities.

(2) Assuming the positing of substantial influence (above), participants were asked what form did the change take, that is, what actually took place in the change? What was done and why was it done? and, continuing,

(3) When having made such a change, how much effort went into the change; how long did it take; what was the level of interest in doing this; in personal terms, how do they evaluate or rate the interest they had in making the change; and how did they perceive the value or importance of the change in adjusting their work? and, continuing,

(4) Finally, whether any changes were made or not, how did they view or perceive their opportunity, their "chance" to make any changes at all in the work. Do they perceive some freedom or autonomy to engage in job change activity?

A team of two human resources professionals (team) that did not include the interviewer reviewed all of the transcribed content and written notes of the interviewer and identified each job crafting episode reported by each participant. A total of 11 participants (19 %) did not offer a single job crafting episode. The team segregated all interview material into job crafting episodes and applied ratings on several domains to each episode. This effort yielded information per each domain (a-g) that follows.

a. Individual, discrete episodes of job crafting with a particular focus or content that participants said were self-motivated and not stimulated by management;

b. A quantity of job crafting episodes,

c. A rating of the magnitude and/or complexity, or "reach" of the specific change. The rating would be low = 1, moderate = 3, or high = 5;

d. A rating of the employee's interest in making the specific change with ratings of low = 1, moderate = 3, or high =5;

e. An estimate of how many hours it took to fully execute and evaluate or assess the efficacy of the change with ratings of 1 = less than 10 hours, 3 = 11 to 20 hours, and 5 = more than 20 hours;

f. A rating of the employee's perception of the value or importance of the change in relation to their work activities with ratings of low = 1, moderate = 3, or high = 5;

and

g. An estimate of the perceived opportunity to craft one's job represented as: no opportunity = 0, slight opportunity = 1, moderate opportunity = 2 and great opportunity to shape the job = 3.

For each employee in the sample we have evidence of job crafting activity or no activity, the nature of the change, the content or focus of the change, and ratings concerned with magnitude of, interest in, time to execute, and value of the specific change. Also, we have an estimate of one's opportunity to engage in the job crafting behavior. The ratings for items c, d, e, and f, above, are summed per each job crafting episode and we arrive at a "score" for the particular episode that may range from 4 to 20 points. An employee who reports three job crafting episodes may attain a combined score of from 12 to 63 points. Hereafter in this paper we refer to an individual's total score across all episodes they report as the *combined score*. Additionally, the team was required to achieve agreement on all episode classifications, ratings, and combined ratings. In essence, this scoring offers a quantitative and qualitative representation of the individual participant's job crafting effort. The team also classified each job crafting episode by general content area. This task required considerable time and effort. The codings of episodes by the team into content areas had average interrater reliability of .81.

Using a modified Q-Sort methodology (Brown, 1993), a different group of three individuals trained in Q-Sort methodology sorted the episodes by content type of each job crafting episode reported. This was a most important task as it identifies the specific content of the changes enacted by the participants, as well as their goals. This effort yielded interrater reliability of .89 per the original content classifications established (see paragraph above). No third-party effort was made to determine the effectiveness of the reported job crafting efforts for purposes of this study.

An earlier section of this paper (see, Previous Research) explained that an analysis of relevant literature suggested that four different individual characteristics were central to understanding some of the individual dynamics and motivation involved in decisions to modify one's job. They are: cognitive ability, self-image, perceived control, and readiness to change. Each study participant completed four measures representative of these characteristics. The details of the four measures follow.

COGNITIVE ABILITY - The Raven Advanced Progressive Matrices Test [APM] developed as a measure of Spearman's general intelligence factor g is a relatively efficient way to measure cognitive ability (see Paul, 1986). In this study we use a short form of the APM, found comparable to the long form, as developed by Arthur & Day (1994). Cronbach's alpha was .74.

SELF-IMAGE - We used the global self-image scale developed by Winstok & Enosh (2004). Usually, self-image as a global concept is a representation of self by oneself in terms of positive or negative quality. It is an attitude towards oneself that takes into account opinions, values, and facts, as well as unfavorable and favorable orientation. The scale prepared by Winstok & Enosh (2004) has a Cronbach's alpha of .80.

PERCEIVED CONTROL - With sample items such as: "How much control do you have over how your work is evaluated?", and "How much control do you have over the variety of methods you use in completing your work?", we used the 22-item instrument developed and validated by Dwyer & Ganster (1991). The items have a 7-point response scale that ranges from 1=very little to 7=very much. For this scale Cronbach's alpha was .92.

READINESS TO CHANGE - We used a scale developed by Frese & Pluddemann (1993) that measures

one's preference for jobs that allow or permit the change of routines. There are five items, such as "I like it when work changes often and quickly", and Cronbach's alpha, on average, is .69. All study participants completed the four measures.

RESULTS

Job Crafting

We identified a total of 86 separate and distinct job crafting episodes for the sample of 58 outside salesperson study participants. The total represents an average of 1.48 episodes per person. This is consistent with the findings of Lyons (2006). Of the episodes reported and classified, 12 participants (21 per cent) reported no episodes, 17 (29 per cent) reported one episode, 16 (28 per cent) reported two episodes, and 13 (22 per cent) of participants reported three or more episodes. Again, the participants were asked to recall episodes that had taken place over the past 12 months. In sum, 41 or 79 per cent of the participants report one or more job crafting episodes that were judged by the interviewers and classifiers as substantive and worthy of being identified in the study.

This provides both face and rational validity for the behavior. Inter-rater reliability for the interviewer and for classifier judgments of the episodes was at least .77. The self-reporting of episodes supports Hypothesis 1 as a majority (79 %) of study participants did report the initiation of at least one job crafting episode.

As mentioned above in the Procedures section, three individuals then used the Q-Sort method to place the episodes into categories. The task was performed twice to be sure that the consensus "votes" for category placement was accurate and complete. There were 86 distinct episodes to categorize and the episodes were finally categorized into five groups. The titles for the categories represent a consensus of the study author, the interviewers, and the individuals who performed the final sort of data. Below, in Table 1 we identify each category group, the number of episodes per category, and an example of an episode for each category.

Category of	Number per	Percent of	Examples of Behaviors		
Job crafting	Category	Total			
Personal Skill Develop Development	o. 24	28	Deciding to learn basic Spanish		
Task Function	19	22	Expanding demo material on hand		
Advancing	17	20	Visit more persons on site visits		
Relationships			-		
Tactics Choices 16		19	Create reading program of books, magazines, etc. to locate novel sales methods		
Maintaining 10		11	Guarantee contact with		
Relationships			actual purchaser		
	86	100 %			

Table 1Categorizations of Job crafting Episodes

In viewing the overall content of the five categories, above, nearly all of the episodes focused on improving and increasing sales, gaining customer confidence and appreciation, and setting the stage for future sales and relationship building. There was some evidence of building personal relationships with those purchasers or potential purchasers with whom the study participants had built a relationship based on factors other than business matters (for example, vacation plans, the war in Iraq, sports). The categorization, above, supports Hypothesis 2 as distinct forms of job crafting behavior are identified by study participants and by independent raters.

Other than the four ratings areas (see, Procedures, above) that contribute to the combined score for each study participant engaged in job crafting, the remaining variable to receive attention in the job crafting component of the results was that of opportunity to engage in personally-initiated changes in the job. The stimulus questions asked of the study participants were: "Do you believe or perceive that you have had the opportunity to make some modifications in the work that you do?" "That is, if you decided that you could make improvements in what you do with regard to things like product knowledge, service to your customers, and such things, do you feel that you have the latitude to make changes in what you do, on your own, without anyone else's knowledge or approval?"

Responses to this line of questioning yielded results as: 12 (21 per cent) reported that they had virtually no such opportunity to modify their work. These subjects were all of the group that chose not to report any episodes; 12 (21 per cent) reported that they perceived they had a slight opportunity to make changes; 25 (44 per cent) reported that they believed they had moderate opportunity to make changes in their work, 9 (14 per cent) said they perceived great opportunity to modify their work, and many subjects in that group (n=6) said that they believed they had a responsibility to make positive changes in what they did on the job to improve sales, relationships with customers and their own income through sales commissions. We offer these details in Table 2.

Perceived Opportunity to Shape Job	Number of Subjects	Percent of Total	
No Such Opportunity	12	21	
Slight Opportunity	12	21	
Moderate Opportunity	25	44	
Great Opportunity	9	14	
	58	100 %	

Table 2

Perceived Opportunity to Shape One's Job

Relationships Among Variables

Intercorrelations were calculated among the variables: combined score and cognitive ability, selfimage, perceived control, and readiness to change. These relationships are shown in Table 3.

Table 3

Descriptive Statistics								
VARIABLES	1	2	3	4	5	Mean	SD	
1. Combined Score	1.00	.11	.31*	.38**	.41**	31.58	15.90	
2. Cognitive Ability		1.00	.09	12	19	6.54	1.98	
3. Self-Image			1.00	.42*	.13	35.11	12.98	
4. Perceived Control				1.00	.17	88.12	36.29	
5. Readiness to Change	e				1.00	16.84	6.02	

Intercorrelations Among Variables and Descriptive Statistics

* significant at the .01 level

** significant at the .05 level

Combined score is based on the amount of job crafting activity presented by the subject as well as the sum of the panelist's ratings of each of the subject's reported episodes on magnitude/complexity of job change, subject level of interest in making the change, time needed to execute/assess the change and perceived value of the change. Intercorrelations among these five ratings yielded no significant results.

As Table 3 demonstrates, combined score correlates significantly and positively with self-image, perceived control, and readiness to change. The correlation of cognitive ability and combined score is quite low thus hypothesis three is rejected. Hypotheses four, five, and six are supported as self-image, perceived control, and readiness to change are significantly and positively correlated with job crafting behavior/activity. Three of the four variables identified as generally representative of individual characteristics are positively related to job crafting behavior. This is encouraging for this exploratory work.

Regression analysis with combined score regressed on the four variables (cognitive ability, self-image, perceived control, and readiness to change) yielded an R^2 (adjusted) of 14.6 per cent, hence the prediction model does not account for a large amount of variance. The t-test for the variable, readiness to change, had a probability value of .01. None of the other variables reached this level or the .05 level. ANOVA results in an F of 5.12 and a p of .005.

DISCUSSION AND CONCLUSIONS

Within the context of a group of outside salespersons [n = 58] as the participants of this work, this study seeks to learn of: (1) the frequency of job crafting behavior over a 12-month period, (2) the forms that the job crafting behavior takes, (3) the perceived opportunity to job craft as reported by study participants, and (4) how four characteristics related to individual differences are related to job crafting activity. The paragraphs below address each of these areas. Earlier research (Amabile, et al.,1994; Ilgen & Hollenbeck, 1992; Wrzesniewski & Dutton, 2001) has demonstrated that job crafting does take place in some job categories and in some organizations.

Our study participants are assumed to have considerable control over their tasks, duties, and time owing to the nature of their jobs. Job crafting episodes arise from individual differences, needs and/or interests

of employees to make changes in their jobs (Wrzesniewski & Dutton, 2001). Although beyond the scope of this paper, the substantial question arises as to the precursors or dominant antecedents of job crafting behavior. This is a topic for future research. The present study is exploratory in nature and seeks to discover some fundamental or baseline information that helps define some of the parameters of job crafting behavior.

Several limitations characterize the study. The sample size is small, the data reported was entirely of the self-report type and there is no easy means to seek verification of the behavior reported unless a particular change has been documented or carefully observed in some way. The focus is on the individual's perspective and not on the perceptions of others (external) or on other, objective evidence. The approach may be regarded as somewhat open-ended and consistent with a grounded theory approach suggested by Strauss & Corbin (1998) whereby the study is concerned with generating as many categories of outcomes as possible. Finally, while we asked study participants to recall job crafting events of the past 12 months, it is likely that many potential events were lost to memory or could not be easily recalled; hence the self-report approach likely contains some recency errors.

The Q-Sort technique is subject to the limitations of the individuals sorting the data and the conventions they use. The translation of the interview information to data elements may contain some language, perception and/or assigned meanings vagaries. These matters reside in research of this type and are not easily controlled although significant efforts were made using redundant categorizations to control the variations. This methodological redundancy, while labor-intensive, adds to the credibility of episode discovery as well as categorizations of episodes. Hence, this particular approach is a strength of the research methodology, and, by itself, could be a suitable or desirable focus of future research.

The Occurrence of Job crafting Behavior

The data clearly signal that job crafting takes place in the sample chosen for this study. Seventy-nine per cent of the sample members report at least one job crafting attempt. And, of the members that reported 3 or more episodes, the average number was 3.2 episodes. This finding clearly supports other research (Amabile, et al.,1994; Ilgen & Hollenbeck, 1992; Lyons (2006); Wrzesniewski & Dutton, 2001) that reports the existence of job crafting behavior. Given that this finding is based on self-report data that covers a period of 12 months, it is likely that some sample members failed to remember some of the efforts they may have attempted in order to modify their jobs.

The Frequency of Job Crafting Behavior

With the instructions given the study participants that limit the reported episodes of job crafting to the last 12 months, we have a mean episode rate of about 1.5 episodes per the entire participant sample. This compares favorably to the research of Lyons (2006). Some participants report no episodes while others report several episodes. Some of the variability in response could be owing to the perception of the study participant with regard to the instructions (questions) that define and explain job crafting. Although the interviewers were trained to repeat, re-frame, explain, and reinforce the critical issues pursuant to the desired information, it may be that several participants did not perceive some of their job crafting behavior previously engaged in as significant or material enough to report.

Forms that Job Crafting Behavior Takes

The labeling of categories of forms that job crafting takes is supported by the interpretation and subsequent achievement of consensus by the team that performed the Q-Sort. Regardless, the actual titles used have some element of arbitrariness about them. For purposes of this research, we assert that the

categories of job crafting identified are reasonable given the nature of the work performed and the sample size.

Similar to the findings heretofore identified, we find that a considerable amount of the reported job crafting does occur in the functions and relationships domains. It may be very difficult to parse the task function behavior and the skill development behavior further. Skill development may enhance task functioning and vice-versa. It is interesting that the skill development category received the greatest response. This would seem to complement the idea that these sales representatives are nearly always left to their own devices to improve their skills and performance, although they do receive sales training frequently and have access to a large variety of on-line and other forms of sales training support and education. Taking initiative is required for success in this line of work. This assertion is reinforced in Lyons (2006) in which persons engaging in job crafting behavior were found to be highly competitive and aggressive.

Considering all job crafting episodes reported, the ones in the categories of relationships (advance, maintain) demonstrated the most consistency in definition and explanation. Task functions, skill development, and tactics episodes explanations were quite varied and showed little in the way of themes or patterns. The relationships definitions were much more highly focused on the details of visits and contacts. One interesting finding in this sample was that practically none of the examples in the category of skill development was related to skill development in the relationship-building domain.

In reviewing the range of job crafting episodes reported it is encouraging that virtually all of the episodes reported focused on performance improvements that seemed to benefit the customer, the sales representative, and/or the company. Not one, self-serving, contra-employer episode was offered by the study participants. This is encouraging. Of course, the study participants may simply have avoided telling stories that may have revealed a more self-serving nature. We may assume that job crafting episodes of the self-serving variety or those of a nature that do some level of harm to customers or the firm are clearly in the minority of all job crafting behaviors. If this is the case, then it might be in the interests of organizations to offer employees more latitude or opportunity to engage in job crafting behavior. These particular findings generally mirror the seminal work of Wrzesneiwski and Dutton (2001) in which practically no self-serving or employer-damaging episodes were discovered.

Perceived Opportunity to Engage in Job Crafting

Findings in this area are somewhat confusing. An important assumption in this study was that outside sales representatives would be employees with great opportunity for job crafting owing to the fact that they received practically no direct supervision once they have received their initial training and moved beyond their probationary employment period. And, to add to this assumption, we believed that the individuals represented a relatively high level of entrepreneurial spirit; that is, commissioned sales staff who could benefit directly from efforts to improve their situation with customers. Yet, only 14 per cent of the sample reported that they had a substantial opportunity to make changes in their work (see Table 2). Another 42 per cent said that they had no opportunity or slight opportunity to make changes. In the future, we would need to find different means to assess the matter of opportunity as the gradations used in this study may be too coarse to render meaningful distinctions.

Relationships Among Variables and Job Crafting Behavior

Three of four characteristics selected for the study (self-image, perceived control, and readiness to change) correlated positively and significantly with amount and characteristics of job crafting behavior as the behavior is represented by the combined score (above). One characteristic, cognitive ability, presented

a weak correlation. With one exception (perceived control and self-image), the four variables do not correlate highly with one another. This is somewhat encouraging as the finding lends credence to the conclusion that these different aspects of individual differences are largely independent of one another and they are highly correlated with job crafting behavior. As mentioned earlier, there is scant empirical evidence to rely upon regarding which features of individual characteristics are closely linked with job crafting. This study provides some useful baseline information that heretofore has not been disclosed by the extant literature. The results of this study help to set the stage for further research regarding which additional predispositions, values, attitudes, and qualities may be substantially related to job crafting behavior.

The idea of what might serve as moderators of job crafting behavior is stimulated by these findings as well. For example, the relationship of job crafting behavior to different performance outcomes could be examined using many different characteristics such as organizational citizenship behavior (Podsakoff, et al. 2000), optimism, initiative, perceptions of self-efficacy, and locus of control as moderators. Study of whether job crafting behavior represents a coping behavior or a performance strategy could be helpful, also.

Implications for Management Practice

Aside from individual differences and interests, some jobs, tasks, and/or work contexts may tend to encourage job crafting behavior more than others. This study and others mentioned earlier in this article clearly demonstrate that job crafting does occur. It seems that job crafting as reported by participants in this study and others (Wrzesniewski & Dutton, 2001; Lyons, 2006) consistently results in improvements in work behavior and performance outcomes most of the time. It is reasonable to expect that many, if not most, workers that are not very closely monitored per human or electronic means, engage in job crafting of some type and that the results of these efforts, *as reported*, are positive.

Job crafting is a type of emergent behavior that may be the result of any of a variety of or combination of stimuli. In organizations that embrace low-hierarchy and have relatively flat structures, we may expect job crafting to take place. Managers in organizations such as these are thus forewarned to anticipate job crafting behavior.

Performance evaluations are often based, in part, on job functions being performed in specific, known ways. When jobs are secretly altered, the evaluation system is not as well matched or as synchronous with the expected work activities. A measurement gap has been created as the system is not likely sensitive to the changes. Individuals in similar jobs no longer may be subject to the same measurement yardsticks because some job holders have modified their work. Some employees may be personally advantaged by the changes they have wrought in their jobs in terms of results attained. By default, other employees may be somehow disadvantaged.

Managers and other employees may regard job crafting as a clandestine, end-run around the existing management system. Some managers may react negatively to such initiatives, regardless of outcomes if the activity is perceived as a challenge to authority, and is not perceived as a type of continuous improvement or personal initiative. Most experienced managers have probably engaged in job crafting of sorts themselves. It is not likely a foreign concept for many of them. Anecdotally, we learned that many managers can report on some employee they know who, on their own, found a way to make some substantive alteration in their work that resulted in efficiencies and/or other improvements for the organization, the boss, customers, and the individual, herself. Intuitively, we know that people do make adjustments in how a thing is done. Many firms and managers encourage and may expect such behavior positive critical stakeholders. the results for so long as are

Management and individual managers normally have responsibility for task and job design. The secretive modification of presumably standard work processes and procedures may deprive management of useful information that could serve the interests of the business. We have no information to suggest that at any of the firms in which job crafting activities were studied were direct incentives offered to employees for ideas, suggestions, and tips for work improvements. Providing such incentives, assuming the incentives are reasonably attractive to most employees, may be one way to encourage workers to share the results of their job crafting efforts, or their ideas about how to initiate useful changes.

In conclusion, this study provides some baseline information about job crafting that heretofore has been absent from the literature. Within the confines of the sales context chosen for this study, we have given some bounds to the concept of job crafting to include its occurrence, frequency, forms it takes, and perceived opportunity to engage in job crafting. Other research has pointed to the existence of these behaviors but has not provided much information to help with comparisons among employees, groups of employees, and comparisons among different job settings. Using the available literature on the job crafting concept we have isolated and examined four variables representing individual differences of employees and we have found that three of these variables, self-image, perceived control, and readiness for change are related to actual job crafting activity. These variables are important in the understanding of the impetus for engaging in the behavior. That is, job crafting seems to help individuals to feel better about themselves and to enable them to perceive they have more control over what they do on the job. Further. the activity offers individuals an outlet for their desire to make changes.

Much more work remains. Larger samples sizes are required for future research and refinements in methods to obtain information and data are needed. The matter of perceived opportunity needs more attention as the perception may condition the entire job crafting sequence of events. Future research should include multiple job classes or types over a variety of organizational (work) contexts to illuminate further the extent of job crafting behavior and the forms it takes.

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Figure 1

Job Crafting Process

