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Working Paper

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IZA Discussion Papers, No. 1137

Provided in Cooperation with:
IZA – Institute of Labor Economics

Suggested Citation: Bewley, Truman (2004) : Fairness, Reciprocity, and Wage Rigidity, IZA Discussion Papers, No. 1137, Institute for the Study of Labor (IZA), Bonn

This Version is available at:
https://hdl.handle.net/10419/20374

DISCUSSION PAPER SERIES

IZA DP No. 1137

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May 2004

Forschungsinstitut
zur Zukunft der Arbeit
Institute for the Study
of Labor

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Discussion Paper No. 1137
May 2004

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May 2004

ABSTRACT

Fairness, Reciprocity, and Wage Rigidity*

This paper contains a review of empirical work related to wage rigidity, where researchers have collected their own data. The work includes field studies, economic experiments, and psychological surveys. Economists have done the field studies and experiments, and management scientists and experimental psychologists have done the surveys. There is a remarkable agreement among the observations of all these investigators.

JEL Classification: E32, J31

Keywords: wage and salary determination, wage rigidity, unemployment, layoffs, hiring, and firing

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* I am grateful to Professor Jennifer Smith of the University of Warwick for comments.

1. Introduction

Most empirical tests of the many competing theories of wage rigidity use publicly available data on pay rates and employment that reveal little about the institutions and motivations that explain wage behavior. In order to learn more, some economists have analyzed unusual sources of data or have conducted surveys and experiments. Management scientists and organizational psychologists have for years been collecting data relevant to wage rigidity. I here report on what I know of these sources of information about the origins of wage rigidity.

2. Are Wages and Salaries Downwardly Rigid?

It is sensible to check whether wages really are downwardly rigid before considering why they are. This question is surprisingly hard to answer, because appropriate data are lacking. It is not even clear what the appropriate definition of the wage should be. A firm's marginal costs depend on the average hourly nominal labor cost per job. Employee welfare depends on total nominal compensation per worker. A third possibility is nominal compensation for an employee with a given job tenure and continuing in the same position with the same employer under fixed working conditions. If the employee is paid by the hour, it is the hourly rate and the benefits that count. Total compensation is the relevant pay rate for salaried employees. This third definition is the one most closely associated with employees' and managers' notions of fairness and hence is most pertinent to the managerial concerns that explain downward wage rigidity. In order to adhere even more closely to the sense of fairness prevailing in business, it might be advisable to include only base pay and exclude variable components, such as bonuses. The three pay rates can change independently. For instance, the average hourly labor costs of a job can increase with no change in any worker's pay, if the seniority of workers assigned to the job increases. Similarly, changes in hours worked or in job assignments can change an individual's total pay without changing hourly pay rates or labor costs per job. There are conceptual ambiguities associated with benefits. For instance, if an increase in the costs of a given medical insurance policy were shared between the firm and its work force, the firm's nominal labor cost per job would increase, but workers would probably feel that the total value of their medical benefits had decreased.

A wage cut should be defined as a reduction in the wage of the third definition above, the pay of an employee continuing to work under unchanged conditions. Unfortunately, this pay rate is the most difficult to measure, because it requires knowledge of much more than just total pay.

Lebow, Saks, and Wilson (1999) is the only study I know of that measures the first definition of wage, the firm's average labor costs. The authors use U.S. Bureau of Labor Statistics data and find that wage costs are somewhat rigid downward, though there is a considerable amount of wage reduction.

There is a large literature that uses surveys of the pay of individual workers to study variation in the third kind of wage. The studies include McLaughlin (1994, 1999), Lebow, Stockton, and Wascher (1995), Card and Hyslop (1997), Kahn (1997), Fehr and Goette (1999), and Smith (2000, 2002). Some of these authors had to struggle with possible errors in the reporting of wage rates. All of the studies suffer from ignorance of changes in hours worked, job assignments, bonuses, or working conditions, so that it is not clear that the data reveal the wage of the third definition. All the studies report large amounts of wage reduction.

Surveys of firms on wage rigidity reach conflicting conclusions. Roger Kaufman (1984), Alan Blinder and Don Choi (1990), Jonas Agell and Per Lundborg (1999), and myself, Bewley (1999), simply asked employers whether they had reduced pay. The responses probably apply to the third definition of wage, but there is no way to be sure. None of the firms in Kaufman's sample of 26 British firms had considered nominal wage cuts during the recession occurring at the time of his study. Blinder and Choi found a high incidence of pay reduction, in 5 of the 19 American firms they studied. Agell and Lundborg, on the other hand, found almost no wage cutting; two out of 153 responding Swedish firms had experienced nominal wage cuts during the previous seven years, a period of high unemployment and low inflation. The wage cuts that did occur were for just a few employees. The near absence of wage cutting may be explained by institutional factors specific to Sweden. Although I conducted my survey during a recession and actively sought out firms that had cut pay, I found a low incidence of pay cuts; of 235 businesses studied, 24 had reduced the base pay of some or all employees during the recession of the early 1990s.

Similarly conflicting results appear in surveys of union wage agreements. In Current Wage Developments and the Monthly Labor Review, the Bureau of Labor Statistics reports on general wage changes for both union and nonunion manufacturing production workers for the years 1959 through 1978. These data show a negligible number or wage reductions; cuts for less than a half a percent of the workers in every year.[1] (The corresponding percentage for my sample was 0.14%. Conflicting evidence has been found by Mitchell (1985), who uses Bureau of Labor Statistics data to calculate that 13% of all workers covered by major new contracts suffered wage cuts in 1983. Similarly, Fortin (1996) finds that 6% of 1,149 large non-COLA union wage settlements in Canada from 1992 to 1994 involved wage cuts.

Much less ambiguous evidence of downward rigidity in the third kind of wage is contained in the few studies that use company records to learn the histories of job assignments, hours worked, and pay of individual employees. The studies include Baker, Gibbs, and Holmstrom (1994), Wilson (1996), and Altonji and Devereux (2000). Unfortunately, these authors study only three firms; Baker, Gibbs, and Holmstrom study one firm, Wilson studies two, one of which is the firm studied by Baker, Gibbs, and Holmstrom, and Altonji and Devereux study the third. Only Altonji and Devereux report data on hourly workers. The other two studies have information only on salaried employees. All three studies find a negligible number of pay reductions. Altonji and Devereux find that 2.5% of hourly workers experienced wage cuts, but almost all of these were "associated with changes between full and part time status, or with changes in whether performance incentives are part of compensation." These findings are reinforced by a telephone survey Akerlof, Dickens, and Perry (1996) made of 596 people in the Washington area. The key question was "Excluding overtime, commissions, and bonuses, has your base rate of pay changed since a year ago today?" A negligible number reported pay reductions. Given the form of the question, this evidence probably pertains to the third definition of wages. Contradicting this evidence are two similar surveys conducted in New Zealand in 1992 and 1993, where 8% and 5%, respectively, of the respondents reported hourly wage reductions (Chapple, 1996, Tables 2 and 3). More work should be

[1] These data are cited in Akerlof, Dickens, and Perry (1996), p. 8.

done. No one has yet conducted a large survey that accurately measures the incidence of cuts in pay according to the third definition.

3. Evidence from Surveys by Economists

There are six surveys by economists of business managers responsible for compensation policy. The goal of five of these was to learn the reasons for downward wage rigidity, the studies of Roger Kaufman (1984), Alan Blinder and Don Choi (1990), Jonas Agell and Per Lundborg (1995, 1999), Carl Campbell and Kunal Kamlani (1997), and Bewley (1999). The sixth study, that of David Levine (1993), also contains relevant information. Although the findings of the studies differ to some extent, they give a consistent picture of the sources of wage rigidity. I also discuss a paper by Jennifer Smith (2002), who analyzes a survey of British workers.

I first summarize my own findings, based on interviews with 246 company managers and 19 labor leaders in the Northeast of the United States during the early 1990s when unemployment was high because of a recession. I present my findings as reflecting the views of managers, though labor leaders had almost exactly the same opinions on the matters discussed. The primary resistance to wage reduction comes from upper management, not from employees. The main reason for avoiding pay cuts is that they damage morale. Morale has three components. One is identification with the firm and an internalization of its objectives. Another is trust in an implicit exchange with the firm and with other employees; employees know that aid given to the firm or to co-workers will eventually be reciprocated, even if it goes unnoticed. The third component is a mood that is conducive to good work. The mood need not be a happy one, though happiness is important for the performance of some jobs, such as those that involve dealing with customers. The mood could be dislike of an unpleasant job combined with grim focus on achievement or pride in accomplishment. Good morale is not equivalent to happiness or job satisfaction. Workers may be content, simply because they do nothing. Good morale has to do with a willingness voluntarily to make sacrifices for the company and for co-workers.

A general sense of fairness is conducive to good morale; it contributes to an atmosphere of mutual trust. The sense of fairness is created by having supervisors treat workers decently, by having impartial rules for settling disputes and determining promotions and job assignments, and by using

reasonable standards for setting the relative pay of different employees. These standards are often elaborate systems and are termed internal pay structures. They clearly determine pay differentials on the basis of such factors as training, experience, tenure at the firm, and productivity. The structures are extremely important, because any perceived pay inequity within a firm may cause indignation and disrupt work. The standards of internal equity are somewhat arbitrary and can depend strongly on company tradition. The standards may not specify that pay be proportional to productivity. Many employers believe that productivity of the work force as a whole is maximized when pay increases less than productivity, though some individuals might produce more if given stronger financial incentives. There is a division of opinion within business about how sensitive pay should be to productivity. Big income differentials due to differences in productivity can cause resentment, especially if productivity is difficult to measure, which it often is. Many firms, nevertheless, use piece rates when productivity can be measured unambiguously, and even when piece rates are impractical, ordinary notions of equity require that differences in people's contributions be rewarded financially to some extent. The sensitivity of pay to productivity may be blunted by the influence on pay of other factors, such as longevity with the firm. No matter how sensitive the pay of individuals is to their productivity, firms automatically keep the average pay of broad categories of workers roughly equal to the value of their average marginal product by adjusting the number of workers in each category to the profit maximizing level.

Managers are concerned about morale because of its impact on labor turnover, on recruitment of new employees, and on productivity. Disgruntled employees are likely to quit as soon as they find another job. A company's best recruiters are its employees, so that it is important not to have them go around complaining about their company. Morale has little impact on productivity in the sense of speed in carrying out routine tasks. Habit and working conditions largely determine this sort of productivity. Managers have in mind the impact of morale on workers' willingness to do the extra thing, to encourage and help each other, to make suggestions, and to work well even when not supervised. Also, workers with bad morale waste time complaining to each other. In considering the impact of morale on productivity, it is important to realize that supervision is so expensive that many employees are not

closely supervised and have a significant amount of freedom on the job. Except in some low-level jobs, employers rely on workers' voluntary cooperation and do not simply give orders.

When considering why wage cuts hurt morale, it is necessary to distinguish new from existing employees. The morale of existing employees is hurt by pay cuts, because of an insult effect and a standard of living effect. Workers are used to receiving regular pay increases as a reward for good work and loyalty, and so interpret a pay cut as an affront and a breach of implicit reciprocity, even if the pay of all employees is reduced. Individual workers may take a pay cut less personally if everyone's pay falls, but when everyone in a company suffers they all complain to each other and stimulate each other's discontent. The standard of living effect is the resentment caused by the fall in income. Workers blame their employer when they find their life styles curtailed. This effect is closely related to what experimental economists call loss aversion.

The arguments just given do not apply to newly hired workers. They probably would hardly care if their firm had a general pay cut just before they were hired. It is possible, however, to reduce the pay of newly hired workers while continuing to give normal pay increases to existing employees; new workers hired after a certain date would simply be paid according to a reduced pay scale. Some firms have experimented with such two tier pay structures. Managers say that new workers hired in the lower tier might be glad at first to have their jobs, but that later their attitude would change after they learned that their pay violated the traditional internal pay structure. They would believe they were being treated unfairly, their resentment would hurt their morale, and their discontent could spread to others.

Resistance to wage reduction and the need for internal pay equity stem from ideas of fairness that usually refer to some reference wage. The reference wage for pay cuts is the past wage. The reference wage for internal equity is that of other workers within the firm with similar qualifications and a similar job. The fairness of wages has little to do with profits or productivity, though both workers and managers find it appropriate that employees share to some extent in the success of their company. Although managers attempt to use reasonable criteria when establishing an internal pay structure, once a structure is established, tradition by itself makes it a standard of fairness.

The explanation of downward pay rigidity just given is closely related to the morale theory proposed by Solow (1979), Akerlof (1982), and Akerlof and Yellen (1988 and 1990). They assert that morale and hence productivity increase with the wage and that the trade-off between labor costs and productivity determines a wage that is independent of the unemployment rate. Akerlof (1982) uses his gift exchange model to explain the link between the wage and morale. According to this model, workers offer more effort than is demanded by the employer in exchange for pay rates in excess of market clearing levels, so that effort increases with the wage level. I do not believe that this theory is fully accurate, because employers say they do not see much connection between effort or morale and wage levels; productivity and morale do not increase with pay levels, though they can be hurt by pay reductions or disappointingly small raises. Even generous pay increases do not increase morale or productivity, because workers quickly get used to increases and grow to believe they have a right to them. They soon lose track of any idea that they should offer extra effort in exchange for higher pay. Employers do not think about a trade-off between labor costs and the productivity of existing employees when setting pay, though managers do consider the trade-off between labor costs and the quality of labor that a firm can attract and retain. In the theory of Akerlof, Solow, and Yellen, morale depends on the level of the wage, whereas in the explanation I have described, wages affect morale only when reduced. What is accurate in the Akerlof-Solow-Yellen theory is the idea that employers avoid cutting pay because doing so would hurt morale. What the theory misses is that employees usually have little notion of a fair or market value for their services and quickly come to believe they are entitled to their existing pay, no matter how high it may be. Workers do not use pay rates at other firms as reference wages, for they know too little about them. Exceptions to this statement may occur when workers are represented by an active labor union that keeps them informed about what other firms pay.

Although pay cuts are unusual, they do occur and usually do not have the harmful effects described by managers when arguing that pay should not be cut. The explanation for this inconsistency is that pay cuts are accepted by the work force if they prevent a firm from closing or if they save a large number of jobs. Managers were confident they could convince employees that a pay cut was necessary, if it were in fact so.

One of the puzzles discussed in the literature on wage rigidity has been why firms lay off workers rather than reduce their pay. I found that most managers believe that the elasticity of their company's demand for labor is so low that pay cuts would not reduce an excess supply of labor within the firm. The elasticity is small, because direct labor is a small fraction of marginal costs and the price elasticity of product demand is far from infinite. Only in firms, such as construction companies, with a high elasticity of product demand is it believed that pay cuts would significantly increase the demand for labor. Many of the pay cuts that occurred were made in such firms or in ones that were in danger of closing. Other firms where pay reduction was an alternative to layoff were those that laid off workers simply to save money, not to get rid of excess labor, and there were many such companies. The main argument for preferring layoffs to pay cuts is that layoffs do less damage to morale. Laid off workers suffer, but they are no longer in the firm. In the words of one manager, "Layoffs get the misery out the door." Good management practice is to save up potential layoffs, make a large number all at once, and then to assure those who remain that there will be no more for some time. Any damage to morale from layoffs is temporary, whereas that of a pay reduction is long-term. Other arguments are that layoffs increase productivity, whereas pay cuts hurt it, and layoffs give management some control over who leaves, whereas the best workers are likely to quit when pay is reduced. The tendency for the best to quit is a concern in many firms, because the leveling effects of internal equity on pay mean that pay for workers within a given job category increases less than their contribution to profits as this contribution increases. Another consideration is that feasible layoffs often save much more money than feasible pay cuts, which usually cannot be more than about 20% of base pay. Layoffs save the fixed costs of employment, which are substantial, whereas cuts reduce only the variable part of pay.

Another puzzle appearing in the economics literature is why unemployed workers do not try to take jobs away from employed people by offering to replace them at lower pay. Robert M. Solow (1990) has proposed that the unemployed do not engage in such undercutting because of a social convention against it. I found that explicit undercutting is impossible for most people, because they do not know exactly what job they are applying for or what its pay is. However, it is not uncommon during periods of high unemployment for job applicants to offer to work for extremely low pay. These offers are not

frowned upon, but are almost never accepted, except to reduce pay during the initial probationary period of employment, because accepting the offers would violate the internal pay structure and could demoralize the new hire.

A similar puzzle is why firms don't replace employees during recessions with cheaper unemployed ones. Assar Lindbeck and Dennis J. Snower (1988) proposed, with their insider-outsider theory, that firms seldom replace workers because old employees who remained would harass and refuse to cooperate with and train the replacements, thereby reducing their productivity. I found that the main reasons employers do not replace employees are that the new ones would lack the skills of the existing ones and replacement would demoralize the work force. The skills would be lost in part because many of them are specific to the firm. Managers agreed that after replacement the unreplaced workers would probably boycott the new ones, but asserted that other factors took precedence over this possibility as an explanation of why employees were not replaced.

John Maynard Keynes (1936) proposed that downward wage rigidity is explained by employees' preoccupation with pay differentials among workers in similar jobs at different firms. I found, however, that such external pay differentials are not an issue, except in highly unionized industries. In most companies, employees know so little about pay rates at other firms that they do not know whether they are underpaid. Although labor unions do try to keep their members informed of pay rates at other companies, unions are weak in the United States.

A popular explanation of wage rigidity is the no shirking theory of Shapiro and Stiglitz (1984). According to their model, managers induce workers to perform well by firing them if their productivity falls below a prescribed level. Being fired is more costly to the worker the higher is the wage, so that higher wages make it possible to insist on greater productivity. According to the theory, managers set the wage so as to optimize the trade-off between wage costs and productivity. This theory does not really explain downward wage rigidity, because it implies that wages should decline when unemployment increases. As unemployment rises, it becomes harder to find a new job, so that firing is more costly to the worker and the theory implies that firms can then obtain the same productivity at lower wages. Despite this drawback, the theory is so popular among economists that I frequently asked managers and labor

leaders about it and was almost always told that it did not apply. As was explained in connection with the Akerlof's gift exchange model, employers do not see much connection between pay and morale. Nor do employers obtain cooperation by threatening to fire shirkers. To do so would create a negative atmosphere that could damage morale and encourage rebelliousness. Workers may malinger on the job, but are seldom dismissed for doing so, except during the short probationary period after hiring. Shirking is usually dealt with through discussions and reprimands, and workers are normally fired only because of a pattern of egregious behavior. Managers elicit effort by explaining clearly what is expected, facing employees with their shortcomings in a constructive manner, pointing out the importance of the tasks performed, showing interest and appreciation, and making workers feel they are valued members of the organization. Most employees like to work and to cooperate and want to please their boss.

Despite the inapplicability of the no shirking theory, the incentive mechanism posited in it can be effective. For instance, employees do work harder during economic slowdowns, when new jobs are difficult to find and layoffs are imminent, especially if layoffs are done on the basis of performance, that is, if the least productive workers in a job category are laid off first. The increase in effort occurs both because job loss becomes more dangerous during a slowdown and because workers try to avoid layoff by being cooperative and productive. Because layoffs stem from circumstances not controlled by management, they do not generate the hostility that might be generated by systematically firing slackers.

Although firing is not used to incite work effort, financial incentives are thought to be very effective in doing so and are believed not to impair morale. Incentives can even improve morale, because workers find it fair that they be rewarded for their contributions to the company. Provided incentives are not exaggerated, they contribute to internal equity. Discipline and even firing can do so as well, because workers who make the effort to do their job well and obey company rules can be outraged if they see others get away with flagrant misbehavior. The main purposes of firing are to protect the company from malefactors and incompetents and to maintain internal equity. Dismissals that are managed correctly earn managers respect. What is to be avoided is an atmosphere of retribution that menaces everyone. This assertion appears not to apply, however, to low-level jobs. There was evidence that employers do

sometimes use coercion to motivate workers in low-paid jobs that require little training and where employees are easily supervised.

Another popular explanation of wage rigidity is the adverse selection model of Andrew Weiss (1980 and 1990). There are two versions, having to do with quits and hiring, respectively. In the quits version, managers prefer layoffs to pay cuts, because the best workers leave if pay is reduced, whereas if managers lay off workers they can select those who leave. According to the hiring version, managers believe that the higher is the level of pay that a job applicant is willing to accept, the higher is his or her unobservable quality, and pay offers to new hires are determined by the trade-off between worker quality and pay. Weiss asserts that the relation between pay and job candidate quality is determined by alternative employment in the secondary sector, where quality is perfectly observable. The secondary sector is home production or jobs that have high turnover and are usually part-time. The hiring version of Weiss's adverse selection theory applies to the primary sector, where jobs are long-term and usually full-time. He assumes that real wages in the secondary sector are downwardly rigid because of constant returns to labor in production there. According to the theory, this downward rigidity is then transferred to the primary sector through the impact of adverse selection on hiring pay.

I found strong support for Weiss's theory as it applies to quits, but none as it applies to hiring. Although managers do believe that a pay cut would cause their best employees to quit, I found no evidence that recruiters use pay aspirations as an indicator of job candidate quality. Job recruiters treated the trade-off between pay and worker quality as a basic fact of life, but they did not learn more about candidate quality from pay demands. Recruiters used the trade-off as a reason for not reducing pay only for skills that were in short supply despite the economic slowdown. For most skills, they believed they could hire all the workers they needed during the recession at lower rates of pay. The secondary sector does not sustain candidates' reservation wages. Hiring pay is more flexible in the secondary than the primary sector, the opposite of the effect predicted by Weiss's theory. Two tier or multiple tier wage structures are commonplace in the secondary sector, because the part-time and casual nature of the jobs keeps workers from getting to know each other well and so reduces the need to avoid internal pay inequities.

Kaufman's (1984) results support my main findings. He conducted interviews in 26 British firms in 1982 during a period of high unemployment. He too found that employers "believed they could find qualified workers at lower wages." He found that employers avoid replacing workers with cheaper ones because of the value of skills and of long-term employment relationships. Employers avoid pay cuts because of concern about productivity. Because supervision is costly, employers rely "heavily on the goodwill of their employees." Workers view wages as "a reward for performing competently" and would regard a wage cut as an "affront." Employers avoid hiring new employees at lower pay rates than existing ones because doing so would create "intolerable frictions," especially with "the newer workers who would eventually become disgruntled about the two tier wage structure." Managers feel they can cut nominal pay if "severe cutbacks or closure will be necessary unless the nominal wage cuts are enacted."

Blinder and Choi's (1990) interviewed managers in 19 firms, and their findings largely agree with my own. They found little evidence to support Andrew Weiss's idea that job candidates' wage demands are useful indicators of productivity. Few of Blinder and Choi's 19 respondents thought that a higher wage would induce greater work effort, though a majority thought that a wage cut would diminish effort. The majority said effort would decrease because of reduced morale. None mentioned the decreased penalty for being fired. A majority of their respondents believed that higher unemployment would bring greater work effort. All respondents answering the question felt that a wage cut would increase labor turnover, though only one of the five firms that had recently reduced pay had experienced a significant increase in quits. "The reason for the wage cut seemed to matter. ..... Generally, wage reductions made to save the firm from failure or to align wages with those of competitors are viewed as justifiable and fair while those made just to raise profits are not." Managers felt strongly that having a wage policy viewed as unfair "would affect work effort, quits, and the quality of future applicants. ..... Attitudes like this must be strong deterrents to implementing an 'unfair' wage policy though ..... that does not necessarily rule out wage reductions under the right circumstances" (Blinder and Choi, 1990, pp. 1008-1009). Blinder and Choi found strong support for the idea that worker concern about relative wages is a reason for downward wage rigidity. The question asked, however, did not distinguish between internal and external pay comparisons, so that the support given to Keynes' relative wage theory is ambiguous.

Campbell and Kamlani (1997) surveyed 184 firms, sending questionnaires to managers who were asked to rate the importance of various statements on a scale from one to four. Most of their findings agree with my own and those of the other surveys. Their respondents attached the greatest importance to the idea that wage cuts would induce the best workers to quit, which is Weiss's adverse selection idea as it applies to quits (Weiss, 1990). Campbell and Kamlani found that the best workers are valued because pay does not increase in proportion to productivity and employees' skills are often firm specific. Other important management concerns were that a wage cut would increase turnover and hence hiring and training costs and would generate bad feeling that would lead to less work effort. Campbell and Kamlani found less support for the idea that pay cuts would make recruitment more difficult and found no support for the no shirking model. Managers did not agree that cutting pay would decrease effort because of a reduced fear of job loss, but did agree that effort would decline because of decreased gratitude and loyalty. Furthermore, good management-worker relations were thought to have a much greater impact on effort than high wages, close supervision, and high unemployment. There was also no support for the insider-outsider theory. Most managers did not believe that if the firm discharged some of its current workers and replaced them with new ones at a lower wage, the old workers who remained would harass and refuse to cooperate with the newly hired ones. The reasons for a pay cut matter; its negative impact on effort would be greater if the firm were profitable than if it were losing money. There is an asymmetry between the impact of wage increases and decreases; the deleterious effect on effort of a decrease would greatly exceed the positive effect of an increase. Similarly, a wage decrease would have a worse impact on effort and morale than having paid the lower wage for a long-time.

Agell and Lundborg (1995, 1999, 2003) did questionnaire surveys of managers in Swedish manufacturing firms, obtaining responses from 179 firms in 1991 and from 157 of those firms in a follow-up survey in 1998. A strong majority of the respondents felt that a nominal wage cut would be strongly resisted by employees and that at least 50% of the firm's jobs would have to be threatened to make a cut acceptable. This finding may be influenced by the fact that Swedish laws make it difficult to reduce pay. The respondents gave strong support to Keynes's theory that the desire to preserve external wage relativities explains downward wage rigidity. The inconsistency between this finding and my own is

probably explained by the much greater importance of labor unions in Sweden than in the United States. Agell and Lundborg found little or no support for the no shirking model. Managers did not regard shirking as very common, and "employees who were repeatedly caught shirking were punished by a simple verbal rebuke," (Agell and Lundborg, 1999, p. 11). Like Campbell and Kamlani, they found that good management-worker relations were much more important to work effort than high wages, supervision, or unemployment. When managers were asked to list the factors most important to worker motivation, "they answered that their employees ought to be given stimulating work assignments, and to feel involved in decision-making. Some stressed that it was important that all employees felt noticed and trusted, and provided with continuous feedback and appreciation." (Agell and Lundborg, 2003, p. 25, footnote 16). As the authors note, these answers were very similar to the ones I heard from U.S. managers (Agell and Lundborg, 1999, p. 13). Managers reported that higher unemployment increased worker effort, and workers seemed to be providing more effort in 1998, when there was high unemployment, than in 1991, when there was little. These findings on the effect of unemployment confirm those of myself and of Kaufman. Like Blinder and Choi, Agell and Lundborg found little support for Weiss's idea that job candidates' reservation wages are a useful signal of productivity (Agell and Lundborg, 1999, Table 6). Agell and Lundborg also found little support for Solow's theory about undercutting. As did I, they found that offers to work for little pay were not uncommon, though fewer such offers occurred in 1998 than in 1991, perhaps because the much higher unemployment rate in 1998 discouraged job search. Managers usually rejected low offers, because accepting them would create pay inequities within the firm and low bidders were thought to have poor skills (Agell and Lundborg, 1995, p. 299). In my survey, I often heard the first explanation, but seldom the second.

Levine (1993) obtained responses to questionnaires on pay policy from 139 compensation managers of large American corporations. The questions focused on the determinants of wages and salaries rather than on the reasons for downward wage rigidity. Nevertheless, he found that the unemployment rate and other measures of excess demand for labor had almost no impact on pay. Also, internal equity considerations take precedence over changes in market pay rates in the determination of relative pay rates for closely related jobs and skills.

In summary, the six surveys, Kaufman (1981), Blinder and Choi (1990), Campbell and Kamlani (1997), Agell and Lundborg (1995, 1999 or 2003), and Levine (1993), are largely consistent and point to an explanation of wage rigidity based on morale rather than on incentives, such as those that play a role in the no shirking model or in Weiss's model of adverse selection in hiring. Adverse selection in quits does seem to be part of the explanation of wage rigidity, however.

I next turn to the analysis by Jennifer Smith (2002) of nine years of data from the British Household Panel Study of 6,000 employed workers from 1991 to 1999. She uses data on the 70% of workers who did not change employer or job grade during the nine years. The data include monthly income and responses to questions about satisfaction with pay and job. She finds that, in a typical month, about 28% of workers suffered nominal pay cuts, in the sense that their monthly income declined, and the pay of about 6% was frozen in that their monthly nominal income did not change. She studies the association between changes in satisfaction and monthly income and finds that workers who suffered cuts were on average less satisfied than those who enjoyed pay increases, though the difference in satisfaction is not striking. Of those workers whose income fell, nearly 40% were satisfied with their pay and nearly 60% were satisfied with their job. She also finds that those whose pay was frozen were just as satisfied as those whose income declined. She interprets this last finding as evidence against the morale theory of wage rigidity outlined above, because according to that theory pay cuts should cause greater unhappiness than do pay freezes. The theory, of course, may be wrong, but it is not clear what conclusions should be drawn from her analysis, because she probably does not have data on pay cuts and freezes in the sense of the third definition given in the previous section, and this is the definition that is relevant to downward wage rigidity. Monthly incomes can fluctuate for a great many reasons, such as changes in overtime, shifts, job assignments, bonuses, or hours, and she has information on none of these except hours, and she is not sure the data on hours are accurate. Pay raises, freezes, and cuts have to do with the rules by which pay is calculated. A great deal more information is required than total monthly income in order to detect changes in these rules. I find it extremely unlikely that on average 28% of the work force suffered pay cuts from one month to the next according to the proper definition of pay cut. Another issue is that actual pay cuts often turn out to do little harm to morale, because they are done

for a good reason and are accepted by workers as fair. When managers say that pay cuts would hurt morale, they refer to unjustified cuts. Also job and pay satisfaction are probably not good measures of morale. I imagine, nevertheless, that workers who suffered true pay cuts would be a great deal less satisfied than workers who had received raises.

4. Evidence from Experimental Economics

Experimental evidence is accumulating that, for the most part, agrees with what managers say about their own choices and about worker motivation. The most important finding is the prevalence of reciprocity. Many people, when placed experimentally in the role of worker or employer, offer extra effort when offered extra pay or offer extra pay after receiving extra effort, even when no quid pro quo is required. People also reciprocate bad for bad. In experiments, subjects incur a cost in order to harm others who have hurt them. The general willingness to reciprocate good for good is the essence of good morale. Negative reciprocity is what underlies the insult effect of pay cuts, which is resentment caused by the firm's perceived breach of positive reciprocity; workers expect employers to offer pay increases, not cuts, in exchange for loyalty and effort. The pervasiveness of negative reciprocity probably explains managers' belief that the systematic use of firing would not motivate employees to work well. Another finding is that financial incentives do inspire effort, provided they are framed in a way that avoids any impression of menace. Surveys of the experimental literature are Fehr and Gächter (1998b, 2000), Fehr and Falk (2002) and chapter 5 of this volume.

A series of laboratory experiments demonstrate the importance of reciprocity in mock employment relationships (Fehr, Kirchsteiger, and Riedl (1993, 1998); Kirchler, Fehr, and Evans (1996); Fehr, Kirchler, Weichbold, and Gächter (1998); and Gächter and Falk (2002)). In these experiments, there are two types of subjects, employers and workers, and two stages of interaction. At the first stage, each employer makes a wage offer, which is either accepted or rejected by some worker. Acceptance leads to employment and to the second stage, where either the worker or the experimenter chooses an effort level. An employer can employ only one worker, and a worker can work for only one employer. An employed worker's payoff is the wage minus a cost, which is increasing in the effort level. The employer's payoff increases in the effort level and, of course, decreases with the wage. Notice that the

employer has no way to enforce the worker's effort choice. The two stages are repeated, usually 10 to 15 times. In some experiments, one worker and one employer are paired for all the repetitions. In others, the experimenter changes the pairings after every repetition. In still another version, the pairings are established at each repetition by competitive bidding for workers and jobs. In such market interactions, there are more workers than employers, so that market-clearing wages should be little more than the workers' reservation level, which is their cost of effort. Experimenters consistently find that if workers choose the effort level, then the average wage is considerably higher than the reservation level, even when competitive bidding should force wages down to it. Furthermore, the worker's average effort is higher than the minimum allowed and increases with the wage offered. In addition, the wage does equal little more than the reservation level, if the experimenter chooses effort and there is competitive bidding with an excess supply of labor. These results hold, even if the employer and worker interact only once. That is, workers offer extra effort in exchange for a higher than minimal wage, even though wages are agreed on before workers choose effort levels and employers never have another opportunity to reward or punish workers. Employers anticipate and exploit workers' reciprocity by offering generous wages.

The experiments show that only some people reciprocate. Others do not do so and behave selfishly. Selfish workers offer the minimum amount of effort. Probably some employers who would otherwise behave selfishly are induced to offer generous wages by the expectation that some workers will react to them by offering liberal amounts of effort. Because wages fall to minimal levels when the experimenter fixes the effort level, we may tentatively conclude that employers' behavior is driven mainly by the expectation of reciprocation, not by a sense of fairness, that is, by a desire to divide evenly the economic surplus generated by the worker-employer interaction.

The tendency to reciprocate may be built into the human psyche. Rilling, et al. (2002) used magnetic resonance imaging to study the reactions of the brain to repeated play of the prisoner's

dilemma game and found that experiencing cooperative responses and deciding to cooperate were both accompanied by patterns of brain activity normally associated with pleasure.[1]

All these findings support the explanation of wage rigidity proposed by Akerlof (1982) in his gift exchange model. I pointed out earlier that this theory does not seem to apply in a business context because workers quickly grow to believe that they deserve whatever pay they receive. Experiments do not continue for long enough to capture this habituation effect.

What is important about the experiments is that they reveal that a significant fraction of the population reciprocates. In addition, the experimental findings do reflect some of the practices that managers explained to me. When setting the pay of new hires, recruiters sometimes offer a little more than applicants expect in order to get the relationship with them started off on the right footing and to create excitement about the new job. One of the many reasons recruiters dislike hiring overqualified applicants is that they are likely to be disgruntled because their pay disappoints their expectations.

Fehr and Falk (1999) performed interesting modifications of the experiments of Fehr, Kirchsteiger, and Riedl (1993) and others described above. Fehr and Falk make the bidding for jobs and workers two-sided rather than one-sided in the situation with competitive bidding and an excess supply of workers. That is, workers as well as employers can make wage offers. The authors found that when the experimenter determines effort, the employers accept only the lowest offers and wages are forced down almost to the reservation level. When the workers choose the effort level, however, the wage is higher, just as in experiments where only employers make offers. Workers make many low offers to try to obtain a job, but these are refused, apparently because the employers hope to incite high effort by paying good wages. The experimental employers' behavior corresponds to that of actual firms, who do usually refuse workers' offers to work for very little.

Burda, Güth, Kirchsteiger, and Uhlig (1998) have performed experiments involving wage cuts. In their work, an employer and worker are matched for two periods, and the employer makes a wage offer in

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[1] I owe this reference to Angier (2002), who makes the connection with the experimental work of Ernst Fehr.

each of them, which the worker may accept or reject. If the worker rejects the offer, the employer may, after paying a fixed training cost, hire a fictitious worker at a market wage, which the actual worker also receives, as if hired by some other fictitious firm. The market wage is predetermined by the experimenters and declines from the first to the second period. In the experiments, there is little wage rigidity; the wages that employers and employees agree on tend to decline along with the market wage. The employer and worker in effect play two successive ultimatum games, the bargaining position of the worker weakens from the first to the second game, and as a result the wage declines. There is no reciprocation of effort for income that could give rise to an insult effect, and the standard of living effect does not apply, since the workers do not live from their earnings. The experiments, therefore, provide evidence that without these two effects wages would be downwardly flexible.

Experimental evidence supports the view of businesspeople that financial incentives are effective, even when negative, provided they are not presented in a hostile manner. For instance, Nagin, Rebitzer, Sanders, and Taylor (1998) report on a field experiment performed by a telemarketing firm. In this firm, the telemarketers' pay increased with the number of successful solicitations they claimed, and the company monitored these claims by calling back a fraction of the people declared to be successes. The company secretly varied the fraction of bad calls reported to employees while increasing the true call back rate. By analyzing the company's data, the authors found that cheating increased as the fraction of bad calls reported declined, so that workers did respond to variation in the negative incentive.

Laboratory experimental work by Fehr and Gächter (1998a) and Brown, Falk, and Fehr (2002) shows that the possibility of negative rewards does not keep reciprocation from being a powerful incentive. Fehr and Gächter (1998a) performed the two stage experiments of Fehr, Kirchsteiger, and Riedl (1993) with the modification that at stage one, the employer requested an effort level. The authors compared the results with experiments where in a third stage the employer could reward or punish the worker. The amount of the reward or punishment was chosen by the employer and was not announced in advance. The employer incurred a cost that increased with the absolute magnitude of the reward or punishment. Despite the cost, many employers did reward high effort and punish low effort, and workers on average offered more effort and earned lower wages in the three stage than in the two stage

experiments. Brown, Falk, and Fehr (2002) repeated the two stage experiments of Fehr, Kirchsteiger, and Riedl (1993) 15 times under two conditions. Under one, employers and workers could identify each other by a number, and employers could make offers to a particular worker. This arrangement made it possible for an employer and worker to form a long-term relationship. In the other condition, the identifying numbers were reassigned in every period, so that long-term relationships were impossible. When identity numbers remained stable, individual workers and employers did form relationships that were valuable to both, because they could establish a pattern of exchanging high effort for high wages. Employers could and many did punish workers for low effort by dismissing them, that is, by ceasing to make them offers. Average wages and effort were considerably higher when identity numbers were stable than when they were reassigned, so workers were not discouraged from reciprocating by the threat of dismissal that was made possible by stable identity numbers. The fact that the negative incentives were not made explicit may have diminished any bad impression they made in the experiments of Fehr and Gächter (1998a) and Brown, Falk, and Fehr (2002). Another explanation for the effectiveness of the negative incentives may have to do with the presence of both selfish and reciprocating workers. Although the reciprocating workers might have been offended by the possibility of punishment, selfish ones might have been induced to offer more effort by the prospect of reward and risk of punishment.

Other experiments that imitate the no shirking model provide additional evidence that punishments do not crush reciprocation and discourage effort. These experiments are described in Fehr, Kirchsteiger, and Riedl (1996), Fehr, Gächter, and Kirchsteiger (1997), Fehr, Klein, and Schmidt (2001), and Fehr and Gächter (2002). The experiments have the form of the two stage experiments described in Fehr, Kirchsteiger, and Riedl (1993), except that the employer requests a certain effort level and a worker is fined with a fixed probability if the effort level offered falls short of that demanded by the employer, that is, if the worker shirks. In its offer, the employer specifies a wage, the fine, and the effort level demanded. The no shirking model of Shapiro and Stiglitz (1984) also has a probability of being caught shirking, and the fine in the experiment corresponds to being fired. One finding is that the threat of being fined elicits more than the minimum possible level of effort. Also, some reciprocation exists, in that

employers obtain effort above the level they demand when they offer generous wages. Probably because employers hope for reciprocation, they often request effort levels that are too high to be enforced by the fine. The average level of actual effort is reduced by a considerable amount of shirking that may reflect reciprocation of the hostility perceived in the possibility of being fined.

The evidence is mixed on the degree to which the specification of fines discourages reciprocity. Fehr, Klein, and Schmidt (2001) and Fehr and Gächter (2002) compare experimental labor relations models imitating the no shirking model, as in Fehr, Kirchsteiger, and Riedl (1996), with labor relations models that depend for success solely on reciprocity or trust, as in Fehr, Kirchsteiger, and Riedl (1993). In the trust model, the employer offers a wage and makes a non-binding effort request, and the worker then offers an effort level. The no shirking model is as described in the previous paragraph. The two papers report opposite results. In Fehr and Gächter (2002), the trust model achieves higher actual effort than the no shirking model.[1] In Fehr, Klein, and Schmidt (2001), the no shirking model achieves higher effort. I see no way of explaining the discrepancy, as the payoffs are nearly the same in the two experiments and the differences between them do not seem relevant.[2] Fehr and Gächter (2002) go on to make another comparison that shows that the fine may vex workers to some extent. They compare the no shirking model with a mathematically equivalent bonus model, in which the punishment is deprivation of a bonus rather than a fine. The bonus model gives rise to greater effort than the no shirking model, but less than the trust model.

Further experimental evidence of the harmful effects of negative incentives is contained in Fehr and Rockenbach (2002). In their experiments, subjects play a game, in which an investor chooses a quantity of money to give to a respondent and specifies the amount he or she would like the respondent

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[1] See figure 6 in Fehr and Fischbacher (2002).

[2] In Fehr, Klein, and Schmidt (2001), the employer chooses the type of model used, there is no excess supply of labor, and the experimenter matches one worker to one employer in each period, whereas in Fehr and Gächter (2002) the experimenter chooses the model, there is an excess supply of labor, and the matching of workers to employers is determined by market bidding.

to return. The amount given is tripled by the experimenter, so if the investor gives x the respondent receives 3x. The respondent then chooses how much to return to the investor. In another version of the game, the investor, when making the gift to the respondent, may commit to imposing a fine of a fixed magnitude on the respondent if he or she returns less than the amount requested by the investor. On average, respondents were least generous when the fine was imposed, next most generous when there was no possibility of a fine, and most generous when the investor could impose a fine but chose not to do so.

Two papers by Falk, Fehr, and Fischbacher (2000, 2003) provide experimental evidence that perceived intentions as well as the desire for a fair division affect reciprocation. Falk, Fehr, and Fischbacher (2000) report on experiments with a variant of the game just described of Fehr and Rockenbach (2002). On the first move, the investor may take money away from or give money to the respondent, and the respondent may then in turn give or take money away from the investor. In another version of the game, the experimenter determines the investor's move according to a random distribution. In both versions, respondents on average react by taking money back if it is taken from them and give money back when it has been given to them. Their responses are, however, of a larger magnitude when the first move is chosen by the investor rather than by the experimenter. This behavior shows that the respondents' behavior was driven to some extent by a desire to even the winnings from the game, but above all by an urge to reciprocate the good or bad intentions of the investor. Falk, Fehr, and Fischbacher (2003) reach the same conclusion from experiments with various ultimatum games. Player A can propose one of two possible splits of 10 monetary units to a respondent. One possibility is always an (8, 2) split, 8 for the proposer and 2 for the respondent. Alternatives are (5, 5), an even split, or (2, 8), (10, 0), or even (8, 2), which means that there is really no alternative. Respondents reject the (8, 2) split more frequently the less fair it seems in comparison with the alternative. For instance, (8, 2) is rejected most often if (5, 5) is the alternative and least often if (10, 0) is the alternative.

These results provide some but not strong support for managers' assertions that using firing systematically to stimulate effort would dampen morale and depress productivity. I suspect that the effects managers refer to are difficult to capture experimentally, because firing is a much more severe

punishment than can be imposed in the laboratory and it is hard to reproduce in a laboratory the menacing atmosphere that could be created in a work place by frequent firings or by the threat of firing.

5. Evidence from Organizational Psychology and Managerial Science

Although early investigations by managerial scientists and organizational psychologists of the relations between pay, morale, and productivity contradicted some of what managers say about these matters, the subject has since evolved and now much of what they say is being corroborated. Recall that managers assert that pay levels have little impact on motivation or performance, but that financial incentives linked to performance can increase productivity considerably. These conclusions have been supported by a large amount of research by management scientists and psychologists, which I do not describe. The relevant literature is reviewed in Vroom (1964, p. 252) and Lawler (1971, p. 133). The management intuitions that did not receive much support in early research had to do with the link between morale and productivity. Morale was measured from questionnaire evidence on job satisfaction and organizational commitment or loyalty, and performance was measured through direct observation or by supervisors' evaluations. There is a huge literature on the subject that has been reviewed by many (Brayfield and Crockett, 1955; Herzberg, Mausner, Peterson, and Capwell, 1957, chapter 4; Vroom, 1964, pp. 181-186; Locke, 1976, pp. 1330-1334; Iaffaldano and Muchinsky, 1985; and Mathieu and Zajac, 1990). The general conclusion is that the correlations between the measures of morale and performance are positive, but small. The measures of performance include those of both individuals and groups. In a way, these findings confirm what managers say, because most of them assert that good morale is not the same as happiness. There is a considerable amount of evidence that job satisfaction is negatively related to quitting and absences. The literature on this subject is reviewed in Brayfield and Crockett (1955), Herzberg, Mausner, Peterson, and Capwell (1957, pp. 106-107), Vroom (1964, pp. 175-180), Locke (1976, pp. 1331-1332), Price (1977, p. 79), Steers and Rhodes (1978), Mobley (1982, pp. 95-105), Staw (1984, pp. 638-645), and Mathieu and Zajac (1990).

There was interesting research in the 1950s that did support management feelings about the importance of morale. The investigators made experimental changes in management practices to determine the relation between attitudes and performance of work groups (Viteles, 1953, chapter 8;

Seashore, 1954; Whyte et al., 1955 and 1961; and Likert, 1961, chapter 3). A main conclusion was that performance is positively associated with pride in the work group or firm, but is not related to other attitudes.

In response to the failure to find a significant relation between job satisfaction and performance, researchers studied the link between job attitudes and workers' doing things for employers that are outside normal duties. Contact with business may have led scholars to look for such a connection, because managers claim that the impact of good morale on productivity is felt mainly through employees' willingness to do more than the minimum required of them. Doing more than the minimum has been given various names, such as spontaneous behavior (Katz, 1964), prosocial behavior (O'Reilly and Chatman, 1986, Brief and Motowidlo, 1986), extra- role behavior (O'Reilly and Chatman, 1986), and most commonly organizational citizenship behavior (Organ, 1988). These concepts differ to some extent. Dennis Organ defines five categories of organization citizenship behaviors, altruism (helping other workers), conscientiousness (obeying company rules, being punctual, and showing up for work regularly), sportsmanship (good-humored toleration of inconveniences), courtesy (considerate treatment of fellow workers), and civic virtue (participation in the internal political life of the organization)..

A first question is whether good morale increases organizational citizenship behavior. Organizational psychologists have done most of the research on this topic. They typically start with a number of loosely defined concepts, such as job satisfaction, perceptions of fairness in the work place, and organizational citizenship behavior, and then try to determine how these are related by analyzing responses to questionnaires by a sample of several hundred people. Each concept is usually broken into several components, such as Organ's five categories of organizational citizenship behavior, and a list of questions is associated with each. Employees answer questions on job satisfaction and perceptions of fairness, and employees or their supervisors answer questions on organizational citizenship behavior. Factor analysis is used to check whether responses to the questions are such that those corresponding to one conceptual component are highly correlated with each other and have less correlation with responses to other questions. The relations among the concepts and their components are then estimated using regression analysis, which is used in nearly the same way that it is in economics. The

advantage of such surveys over laboratory experiments is that they can investigate real life situations where there are long-term associations between workers and employers; the subjects in laboratory experiments are usually college students. The disadvantage of surveys is that it is much harder to establish causation than it is with experiments.

The findings of organizational psychologists do not all agree, but their work supports the conclusion that typical measures of morale, such as job satisfaction and organizational commitment, do have a positive relation with organizational citizenship behavior. What is more important is that a perception of fairness within a business organization has a positive relation with both job satisfaction and organizational citizenship behavior and may be the dominant factor affecting both. Furthermore, procedural justice, and especially the interactional aspect of procedural justice, is more closely related to job satisfaction and organizational citizenship behavior than is distributive justice. Distributive justice has to do with the actual allocation of rewards to employees, whereas procedural justice has to do with the system used to arrive at the allocation. Interactional justice has to do with the consideration, politeness, and respect with which superiors treat subordinates. Another conclusion is that organizational citizenship behavior depends less on employees' mood than on their conscious perceptions about their jobs. The impact of fairness on organizational citizenship behavior is discussed in Organ and Konovsky (1989), Moorman (1991, 1993), Folger (1993), Moorman, Niehoff, and Organ (1993), Niehoff and Moorman (1993), Podsakoff and MacKenzie (1993), Organ and Ryan (1995), Konovsky and Organ (1996), Netemeyer, et al. (1997). Moorman (1991) discusses the relative impacts of the various forms of justice. The impact of mood is discussed in Organ and Konovsky (1989), George (1991), and Moorman (1993). The relative impacts of mood and cognitive job satisfaction are discussed in Organ and Konovsky (1989) and Moorman (1993). The impact of job satisfaction and commitment on organizational citizenship behavior is discussed in O'Reilly and Chatman (1986), Puffer (1987), Farh, Podsakoff, and Organ (1990), Moorman (1991), Organ and Lingl (1995), Organ and Ryan (1995), Konovsky and Organ (1996), Netemeyer, et al. (1997), and MacKenzie, Podsakoff, and Ahearne (1998). Good reviews of the impact of fairness on organizational citizenship behavior are Organ (1988, 1990), Schnake (1991), Greenberg (1993), and Organ and Moorman (1993).

Another connection between morale and organizational citizenship behavior is made through studies of the impact of leadership style on subordinates' organizational citizenship behavior. A distinction is made between transactional and transformational leadership. The transactional style asserts itself by means of praise and admonishment, whereas the transformational style inspires people to go beyond their personal interests and think of those of the company or task. The transformational style draws people to identify with the company, and the transactional style focuses on people's self interest. The transformational style is intended to create good morale in the sense that business people usually have in mind. Investigators have found that transformational leadership has a strong positive impact on both in-role job performance and on organizational citizenship behavior, that its impact exceeds that of transactional leadership, and that the impact of transformational leadership is due in part to increased trust in the leadership. The relevant studies are Podsakoff, MacKenzie, Moorman, and Fetter (1990), Podsakoff, MacKenzie, and Bommer (1996), and MacKenzie, Podsakoff, and Rich (2001).

An obvious question is whether organizational citizenship behavior increases a company's profitability. Managers apparently think that it does, because there is evidence that supervisors' performance evaluations of subordinates are strongly and positively influenced by organizational citizenship behavior. Papers that establish this connection are MacKenzie, Podsakoff, and Fetter (1991, 1993) and Podsakoff, MacKenzie, and Hui (1993). A few studies have measured the impact of organizational citizenship behavior on the performance of work groups in various settings and have found the effects to be positive. These studies include George and Bettenhausen (1990), Podsakoff and MacKenzie (1994, 1997), Walz and Niehoff (1996), and Podsakoff, Ahearne, and MacKenzie (1997). The observed correlations may be spurious, however, because there is evidence from laboratory experiments that the high performance of a work group may have a positive influence on perceptions within the group of organizational citizenship behavior (Bachrach, Bendoly, and Podsakoff, 2001). The subject is reviewed in Podsakoff, MacKenzie, Paine, Beth, and Bachrach (2000).

Some interesting recent work has explored the connection between identification with an organization on the one hand and quits and performance, especially extra-role performance, on the other hand. Tom Tyler has participated in much of this work. He thinks of identification with a company as

internalization of its goals and asserts that identification occurs as a result of judgments about organizational status, which he calls pride, and about status within the organization, which he calls respect. Pride has to do with a favorable view of the organization as a whole and respect has to do with being treated well within it. Status judgments can be comparative or autonomous, where a comparative judgment relates an organization or person to others and an autonomous judgment is an absolute one. Tyler believes that if people identify with an organization, they will want it to succeed, because its success will strengthen their own self-image. Identification with an organization is, in my opinion, a much better interpretation of what managers mean by good morale than are job satisfaction and even organizational commitment. Tyler and his co-authors find that identification is a dominant explanation of voluntary cooperation with organizations. In the context of business organizations, identification with the company is a much more important explanatory factor than financial rewards received from it. These investigators find that the greatest impact of identification is on organizational citizenship, extra-role, or discretionary behavior as opposed to in-role or mandatory behavior, that is, behavior required by a job description. The primary impact of pride is on rule following or conscientiousness, whereas the primary impact of respect is on helping behavior, that is, assisting co-workers. Autonomous judgments of status have a much bigger effect than comparative ones. Tyler and his co-authors assert that perceptions of fairness and especially procedural justice have an important impact on judgments about the status of an organization and hence on willingness to identify with it. Recall that management scientists cited earlier, Morris Viteles (1953), Stanley Seashore (1954), William Whyte et al. (1955), and Rensis Likert (1961), also found a connection between pride in an organization and performance. The work of Tyler and his colleagues is reported in Tyler (1999) and Tyler and Blader (2000, 2001). Abrams, Ando, and Hinkle (1998) observe a close association between identification with an organization and intentions to quit. Much of the work of Tyler and his co-authors on identification and cooperation with organizations has been done in the context of political, social, and educational institutions, but the recent work just cited has to do with businesses. This interesting work raises the question of why people identify with organizations. Status is an incomplete explanation, since the term status has little independent content and includes all possible reasons for liking an organization. It is interesting that fairness has a strong influence on status

and that people are proud of organizations that treat them and others fairly, but researchers have given no explanation of why this is so.

An obvious question is what evidence has been collected on the impact of actual pay cuts or pay freezes on morale. The only works I have found on the subject are Greenberg (1989, 1990) and Schaubroeck, et al. (1994). In the first paper, Greenberg finds from a survey that workers did feel underpaid after a 6% pay cut, but job satisfaction did not decline and employees instead paid more attention to the non-financial advantages of their jobs. In the second paper, Greenberg reports that theft of company property increased after a 15% pay cut. In this paper, he conducted an experiment in which he gave employees a good explanation of the pay cut in one plant where the pay cut occurred but not in another. In the plant where the explanation was made, feelings of pay inequity and pilferage were less than in the other plant. This evidence supports the assertions managers make that employees tolerate pay cuts more easily if they feel they are justified and that it is possible to persuade workers that cuts are necessary. These conclusions are further reinforced by the work of Schaubroeck, et al. (1994), who studied the reactions of salaried employees to a pay freeze. These investigators also conducted an experiment, giving a good explanation to some of the employees and not to others. The explanations of the freeze diminished resentment. For those who did not receive the explanation, job dissatisfaction increased with self-reported economic hardship resulting from the freeze, and there was no such relation for those who did receive the explanation.

6. Conclusion

Perhaps the outstanding conclusion to be drawn from the works discussed is the importance of fairness to labor performance. It is not easy to judge what fairness means. Fairness certainly does not mean an equal distribution of the benefits from a company's operations; pay levels within firms are far from egalitarian. Even workers doing the same job may receive very different pay because of many factors, such as longevity with the company, skills acquired, and productivity. Fairness is recognized in business as being inherently ambiguous. For instance, judgments about the fairness of internal pay structures are said to depend strongly on company tradition. Other evidence that fairness does not mean equality of gains is evidence from organizational psychology that procedural and interactive justice are

more important to an impression of fairness than is distributive justice. A very significant finding, I believe, is that of Tyler and Blader (2000, 2001) that perceptions of procedural justice contribute to pride in an organization.

We do not know why people so urgently desire fairness. Is it because it contributes to an atmosphere of positive reciprocation and people like to exchange favors? Does fairness make people feel more secure? Do people feel that fairness is right and want their surroundings to accord with their moral precepts? Do people simply want to have a level playing field on which to compete? It is to be hoped that further empirical work will give more insight into these questions.

An understanding of the need for fairness would contribute a great deal to understanding how organizations obtain cooperation and to the explanation of wage rigidity. A sense of fairness is probably the most important determinant of good company morale. Other important factors are close ties among co-workers and the significance attached to the firm's output. One reason pay cuts can be resented is that they can dissolve the sense of fairness. Workers accept a pay cut if they feel it is fair and they see it as fair when it saves a great many jobs.

Another important conclusion is that firms try to gain the cooperation of employees by getting them to identify with the company and to internalize its objectives. As Tyler and Blader (2000, 2001) have emphasized, an atmosphere of fairness makes workers more willing to do these things. It would be useful to know why fairness promotes identification with a company and why people identify with organizations at all. That they do is clear.

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