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No. 1/2006

The Acceptability of Layoffs and Pay Cuts: Comparing North America with Germany

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Bundesagentur für Arbeit

The Acceptability of Layoffs and Pay Cuts: Comparing North America with Germany

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Auch mit seiner neuen Reihe „IAB-Discussion Paper“ will das Forschungsinstitut der Bundesagentur für Arbeit den Dialog mit der externen Wissenschaft intensivieren. Durch die rasche Verbreitung von Forschungsergebnissen über das Internet soll noch vor Drucklegung Kritik angeregt und Qualität gesichert werden.

Also with its new series "IAB Discussion Paper" the research institute of the German Federal Employment Agency wants to intensify dialogue with external science. By the rapid spreading of research results via Internet still before printing criticism shall be stimulated and quality shall be ensured.

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Abstract

Substantial evidence shows that North Americans are generally more accepting of the market than Europeans and attribute market outcomes to a larger degree to effort or skill. This article discusses the perceived fairness of layoffs and pay cuts in North America and Germany. We expect North Americans to be more accepting of layoffs and pay cuts than Germans and that procedures and conditions under which pay cuts or layoffs occur have a stronger impact on fairness perceptions for Germans than for North Americans. This hypothesis is tested using a quasi-experimental design. The empirical results are in line with our considerations.

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1 Introduction

The paper addresses the question: *Do community standards of fairness in the employment relationship differ across countries?* We briefly refer to evidence showing that North Americans are generally more accepting of the market and attribute more market outcomes to effort or skill than do most Europeans and then show that fairness perceptions are important for employment relations in both regions. We then discuss several labor market institutions that might affect notions of fairness differently in the two regions. In view of the comparatively stronger market orientation in North America and the more encompassing regulation and institutional protection of the German labor market and the German employees we expect that notions of fairness are much stronger in Germany than in North America. The main contribution of the paper is an empirical comparison of fairness perceptions for several layoff and wage cut scenarios in Germany with the results of Charness and Levine (2000, 2002) for North America, using a quasi-experimental survey design. We find support for most of our hypothesis.

2 The fairness of market outcomes: Transatlantic differences

Recent research shows that U.S. citizens are much more acceptant of the market and market results than continental Europeans and among them Germans (Corneo 2000, Alesina and Angeletos 2005, Alesina, et al. 2005). The belief that income is determined by individual effort is more pervasive on the American side of the Atlantic. Corneo (2000) uses data of the International Social Survey Programme (1992 Social Inequality II Module) to show that a substantially higher percentage of Americans (88%) respond “essential or very important” to the question “How important is hard work for getting ahead in life?” than western Germans (52%) or eastern Germans (71%) in the reunited Germany. Likewise only 38% of Americans strongly agree or agree with the statement “It is the responsibility of the government to reduce the differences in income between people with high incomes and those with low incomes” whereas 66% of West Germans and 89% of East Germans conform. Alesina and Angeletos (2005) argue that differences in support for redistribution can be explained in part by “a difference in social perceptions regarding the fairness of market outcomes

and the underlying sources of income inequality". For Americans poverty appears to be the result of bad choices or lack of effort while for Europeans poverty is mainly due to bad luck or social injustice. Interestingly, Alesina and Angeletos (2003) attribute these transatlantic differences to historical antecedents. In Europe, class differences shaped opportunities for economic success for long periods more pervasively than ability and effort. In America - without the legacy of rigid classes - the social perception prevailed, that success in the labor market and the economy was due to effort and ability.

In addition, comparing the roots of labor market institutions in the United States and Sweden, Agell (2002) argues that that unions, collective bargaining, job protection and egalitarian pay structures originally emerged as defensive reaction to the menace of unemployment and income insecurity. They arose due to needs of a social insurance of otherwise uninsurable risks and are not primarily and exclusively the outcome of rent seeking by unions and insiders. The development of labor market institutions was, however, very different in the United States on the one hand and in Sweden, in fact in many European countries, on the other hand. To explain why institutions evolved differently Agell (2002), citing Keyssar (1986) suggests the role of massive foreign immigration in the United States. In an environment with multiple ethnic groups it was much more difficult to establish durable and encompassing labor market institutions than in the more homogeneous European labor markets.

Apparently, a nation's norms and values and specific historical paths influence its labor market institutions and laws. Thus, German laws hindering layoffs (described below) in many cases suggest that Germans place more value on employment security and fairness at work. In addition, in many cases people become adapted to what they see and consider it as fair. Again, the presence of laws hindering layoffs should suggest that Germans find layoffs less fair than North Americans. Thus, we hypothesize that Americans are more willing than Germans to assess (temporarily) negative labor market outcomes (layoffs and pay cuts) as fair.

3 Fairness matters: Transatlantic commonalities

In both North America and Germany *psychological contracts* are one important source of fairness perceptions in the employment relationship

(Anderson/Schalk 1998, Herriot et al. 1997, Hiltrop 1995, Millward/ Brewerton 2000, Rousseau 1995, Rousseau/Schalk 2000). These psychological contracts are often implicit agreements between employers and employees. Trust in these implicit obligations relies on the assumption that both parties fulfil their obligations (reciprocity). A one-sided violation of the contract implies erosion of trust and induces changes in behavior.

Accordingly, psychologists (e.g. Rousseau 1995), sociologists (Barnard 1938, Blau 1964) and more recently economists (e.g. Milgrom/Roberts 1992, Williamson et al. 1975, Baker et al. 1988, Simon 1991) have hypothesized that an employee's productivity depends on her or his perception of the underlying social contract with the employer, as well as on narrow economic concerns. A worker who is dissatisfied may deliberately restrict output or even resort to sabotage. Conversely, an employee who feels he or she receives a fair deal is more likely to perform above any minimum requirements (Farh et al. 1990, Konovsky/Douglas 1994, Moorman 1991).

Recent evidence supports the view that non-pecuniary considerations affect productivity. Levine (1993) shows that in simulations compensation executives make decisions as if they believe fairness matters. Rabin (1993) surveyed the literature more broadly and suggests that reciprocity is an important norm in determining fairness - people do not usually believe it is fair when a person responds to gentle actions with harsh actions. Experimental evidence also supports this reasoning. Charness (1998), Fehr et al. (1993) and Fehr et al. (1998) are just some of the experiments showing that employees respond to higher (above-market) wages with higher effort, even in an anonymous environment where their reputation does not matter.

As a result of the commonalities and differences summarized above we expect that fairness perceptions are important in the employment relationship in North America and in Germany, though to a lesser degree in North America.

4 Country-specific institutional differences

Schlicht (1998) argues that country-specific laws and institutions establish explicit and implicit rights, which manifest themselves in social norms and

habits. Similar, psychological contracts may vary in content and level across countries. For the topic investigated in this paper the relevant question is if certain institutions establish norms in favour of rigid pay and stable employment. In the following we will discuss protections against dismissals and the fall-back position of laid-off workers as well as wage determination systems.

We will start discussing *protection against dismissals:* A comparison of relevant OECD-indicators (OECD 2004) shows that in this respect the U.S. labour market is less regulated than the Canadian one which in turn is subject to less regulation than the German labor market. For collective dismissals the extent of regulation is much stronger in all three countries than for layoffs of single employees. We will briefly describe the main features of protection against dismissal in the three countries under consideration:

- In Germany the Protection against Dismissal Act applies to all employees in companies whose regular workforce exceeds 10 employees, who have been employed in this company for at least 6 months. If a works council exists, it has to be fully informed and consulted in all cases of dismissal. In 2000. 45.8 percent of Germans in the private sector work in establishments with a works council (Addison et al. 2003). The legal period of notice ranges between 2 weeks during the probationary period (maximum 6 months) to 7 months after 20 years of service. If “mass dismissals” occur, a company has to consider social issues like the duration of service in the company, age, obligations to pay maintenance and chances of re-employment. Employees charge their employers at the labour court relatively often. In most cases, however, the dismissed are primarily concerned with the amount of severance payment rather than with re-employment.
- In contrast, as far as the United States is concerned, employment can be terminated by either party with or without a cause at any time; co-determination rights do not exist. A certain protection against dismissal exists, however, for the relatively small proportion of employees who are members of trade unions because most collective agreements allow dismissals only for a just cause. Furthermore, Anti-Discrimination Acts provide some protection against dismissals for selected groups of em-

ployees. Similar to Germany, evidence of deliberate discrimination can result in high payments of compensation or fines.

- In Canada there has to be a good and sufficient cause for dismissals and the period of notice is 2 weeks for employees working at least for 3 months in the company. Redundancy payment is regulated by law: After one year's length of employment dismissed employees receive two day's pay for every year of service with the minimum compensation of five day's pay. In case of charges courts rarely decide on re-employment, but rather determine compensatory payments.

The *fallback position* of laid-off workers is determined in particular by the level and structure of unemployment, but also by institutions like the amount and duration of unemployment compensation. At the time of our surveys the *unemployment rate* in the United States was significantly lower than in Canada and Germany, where the unemployment rate in eastern Germany was twice as high as in western Germany. On the one hand employees might perceive dismissals or wage cuts as less fair in times of high unemployment than during less precarious labour market periods: The higher the regional unemployment rate the less likely it is to find a new job with similar employment conditions. On the other hand individuals might consider dismissals and wage cuts as rather normal, when unemployment has remained at a high level over a longer period of time.

Moreover, the *structure of unemployment* could affect fairness considerations. In Germany about half of the unemployed are longer than one year unemployed, compared to only 10% in the United States. This might imply that even in times of high unemployment the groups of employees which are predominantly affected by unemployment (mainly older and unskilled workers) consider layoffs and wage cuts as most unfair. *Duration and size of unemployment benefits* also differs among the countries. In the United States benefits are lower and eligibility for benefits is shorter than in Germany.[1]

[1] The protection of long-term unemployed workers in Germany declined in 2005, after our data were collected.

In addition to other factors the evaluation of wage cuts could be influenced by *wage-setting institutions*. The system of industrial relations can implement explicit protection against wage cuts. In particular the bargaining coverage rate is much higher than in Germany than in the United States: While in 1994 about 90% of employees in Germany work were covered by collective wage agreements, less than 20% of employees were covered by these contracts in the United States (Nickell et al. 2005). However, within Germany differences between the eastern and western part are noteworthy: In eastern Germany many local contracts allow pay reductions compared to the collectively negotiated wage. Accordingly, we presume that wage cuts are more likely to be accepted in the United States than in Germany, and that wage cuts within Germany might be more readily accepted in eastern Germany.

Finally, the *importance of internal labor markets* differs between the United States and Germany. Hall (1982) estimated ten lifetime job changes for an American during his working career while male Germans hold an average of four lifetime jobs (Winkelmann 1994). The U.S. labor market rewards mobility and job matching whereas in the German labor market human capital and relative job stability are rewarded. Therefore, we presume that the relatively low mobility and comparatively high internal employment stability in Germany will have the effect that dismissals, in particular of workers with firm-specific qualifications, are perceived as less fair in Germany than in the United States.

Summing up, in the light of these institutions and regulations of the labor market we expect that different countries will perceive the fairness of layoff and dismissals differently. Due to less protection against dismissals as well as higher probabilities of re-employment and mobility on the labour market in the United States and partly in Canada it can be presumed that dismissals and wage cuts in these countries will tend to be perceived as fairer than in Germany. The less generous unemployment compensation in North America probably makes layoffs less fair, but the lower levels of insurance themselves probably result from more favourable perceptions of the fairness of layoffs. This difference will be reinforced by German's lower overall perceptions of fairness of markets and market outcomes.

Charness and Levine (2000, 2002), however, could hardly detect any country-specific differences in the perception of dismissals and wage cuts in their comparison between Silicon Valley and Canada. Taking into account this result and the preceding considerations we formulate the main hypothesis: *The general acceptance of dismissals as well as wage cuts is lower in Germany than in the United States which is in part due to institutional and regulatory differences.*

5 What affects perceptions of fairness concerning layoffs and pay cuts?

Which factors might have an impact on fairness perceptions of layoffs? Several hypotheses concerning the source of shocks, company responses, and the characteristics of employees are discussed in detail by Charness and Levine (2000). The authors have already tested these hypotheses for North America using a quasi-experimental design that is based on a scenario technique. A brief review of the composition of these scenarios - which laid also the groundwork for our German survey - and the related basic assumptions of fairness perceptions will be presented.

What shocks justify layoffs? The scenarios examine three different shocks that reduce the employer's demand for labor:

- Product market shock: “A company faced lower product demand due to shifts in the market; the viability of the employer is threatened.”
- New technology: “A company has higher productivity due to the introduction of some new technology.”
- Employees’ suggestions: “A company has higher productivity due to the employees' suggestions.”

In general, previous research suggests that people consider it fairer to react to an exogenous shock than to take the initiative and cause harm (Rabin 1993). Along these lines, both Kahneman et al. (1986) and Brockner (1992) found that external circumstances (e.g., a threat to the existence of the firm) led many people to consider pay cuts and layoffs as more fair.

New technology is less exogenous to the employer than lower product demand. Thus, respondents should rate layoffs in response to the product

demand shock as fairer than those due to the technology shock. Moreover, new technology that raises productivity increases the employers' ability to pay. To the extent that perceptions of fairness involve the sharing of rents and quasi-rents, layoffs due to the introduction of new technology should be perceived of as less fair than layoffs due to lower product demand.

Like new technology, employees' suggestions increase employers' ability to pay. Layoffs due to employees' suggestions have yet another reason to be perceived of as unfair: they violate the norm of reciprocity. The norm of reciprocity suggests that employers should respond to employee suggestions with bonuses, not with layoffs. For respondents who share this view, layoffs for this reason should be even less fair than those due to new technology.

How important is the mode of implementation a layoff? Our scenarios consider two possible responses to a reduction in labor demand.

- Gentle layoff: “The Company is laying off some employees. Before the layoff, the employer has given each employee four paid weeks to find another job elsewhere in the company. Those who cannot find a new position receive severance pay based on age and years of service. The company provided out placement assistance including counselling and résumé-writing workshops. Employees knew layoffs were likely in this circumstance.”
- Harsh layoff: “The company is laying off employees with two weeks' warning. These are the first layoffs in the company's history.”

The “gentle“ layoffs scenario is substantially more generous than the harsh layoff scenario. Brockner (1992), for example, notes that layoffs are perceived as more fair when the employer provides tangible care-taking services to help soften the blow. Moreover, the gentle layoffs scenario includes advanced notice, a form of respect that Brockner et al. (1994) argue will predict high perceptions of procedural justice.

In addition, the literature on new employment contract (Levine et al. 2002) predicts that gentle layoffs will generally be perceived as fair even in cases when the employer has high autonomy. Unlike harsh layoffs, respondents will not consider these gentler layoffs as violating norms of re-

ciprocity, even when employees have submitted productivity-enhancing ideas. For example, the severance pay may be interpreted as indicating that the employer is sharing some gains of higher productivity. This reasoning leads to a complementary hypothesis, that the type of shock makes little difference in how fairly respondents rate gentle layoffs.

Do skill specificity and the occupation of laid-off workers affect fairness perceptions? We compare the following occupations and skill specificity (holding constant the tenure for laid-off workers):

- Engineers: “Thus, the company is laying off some high-technology engineers.“
- Production workers: “Thus, the company is laying off some production workers.“
- Firm-specific skills: “These workers are specialists in this company's unusual technology, with an average of ten years tenure at this employer.“
- General skills: “The affected engineers [production workers] have an average of ten years tenure at this employer and specialize in widely used hardware, so that their skills would be useful in another job.”

Employees' costs of layoffs are higher when employees have employer-specific skills than when they have skills that are widely useful (Becker 1975). Consequently, a further hypothesis is that layoffs are fairer when the employees’ skills are useful in another job as compared to when they are specialists in the company's unusual technology.

Although recent data suggest that layoff rates are converging, production employees in the United States still are more likely to be laid off than are professional employees (Farber 1996). Similarly, in Germany the risk of unemployment decreases with education (Reinberg and Hummel 2005). In societies, in which individual achievements justify differences in status, this should be evaluated as fair. Moreover, professionals typically have a higher-trust relationship with the employer, providing higher commitment and working with lower monitoring. In exchange, so goes the reasoning of the traditional employment contract, the employer is supposed to provide stable employment to this type of employee. Hence layoffs are perceived as more fair when they affect production workers instead of engineers.

Does the payment of CEO Bonuses affect fairness notions? The following scenarios are taken under consideration:

- No mention.
- CEO record bonus: “The CEO received a record bonus for his success in cutting costs.”
- CEO refused bonus: “The CEO turned down his bonus this year because of the unexpected need for layoffs.”

Theories of distributive justice often imply that lower-paid employees look to the fate of their higher-paid colleagues for fairness comparisons. In some cases, these comparisons rise to the highest ranks of the organization (Cowherd/Levine 1992). Executive pay may be particularly salient during downsizing (Brockner 1992).

Theories of procedural justice reinforce distributive concerns over relative outcomes (Bies et al. 1993). People are more likely to consider a decision fair, even if it harms them, if the decision-maker did not profit from it. Conversely, if a decision-maker profits from a decision that harms employees, the employees have reason to doubt the objective basis of the decision (Leventhal 1976).

Finally, what evidence exists concerning community standards of fairness regarding pay cuts? In the mid 1980's, Kahneman et al. (1986) conducted a series of quasi experiments to investigate perceptions of fair treatment in Vancouver and Toronto. They found that reductions in wages for current employees due to slack labor markets were considered unfair much more frequently than were equally large reductions in wages for new employees. Furthermore, Kahneman et al. (1986) showed that economic shocks that reduce profits justify new wages, but that increases in market power do not. In a follow-up study Charness and Levine (2002) show that respondents in the Silicon Valley were only slightly more accepting of pay cuts than Canadian interviewees. Comparing respondents from North America and Germany we expect stronger differences in the perceptions of pay cuts. The reason is again that North Americans are more acceptant of market outcomes and that labor market institutions, specifically collective wage contracts, specify wages in Germany which are perceived as fair.

6 Data and Method

The North American survey (Charness/Levine 2000, 2002) was carried out in Vancouver and Toronto between March and September 1997 and in Silicon Valley between October 1997 and March 1998. There were around 1000 Canadian and Silicon Valley respondents each. The German survey was conducted in the summer of 2004 and covered around 3000 respondents. Note, that in translating the scenarios from English to German and designing the questionnaires we tried to ensure as much comparability as possible.

We asked each respondent several questions about the fairness of layoffs and pay cuts in different scenarios. The questions concerning layoffs examined variations of a model case (Charness/Levine 2000):

> "A company faced lower product demand due to shifts in the market; the viability of the employer is threatened. In response, the company laid off some high-technology engineers. These workers are specialists in this company's unusual technology, with an average of ten years tenure at this employer. The company is laying off employees with two weeks' warning. These are the first layoffs in the company's history."

Respondents were then asked if the layoff was completely fair, somewhat fair, unfair, or very unfair (coded as 3 = completely fair, 2 = somewhat fair, 1 = unfair, 0 = very unfair). This model case was varied along a number of dimensions, to analyze how changes in the sources of the shocks to the employer, the reactions of the employer, the skills and occupations of the employees affected, and other factors had an impact on the respondents' perceptions of fairness.

The questions on pay-cuts replicated some scenarios introduced by Kahneman et al. (1986). Following Charness and Levine (2002) only the categories fair (completely fair or somewhat fair) and unfair (unfair or very unfair) were distinguished (coded as 1 = fair, 0 = unfair).

Note that comparison questions - questions matched on all aspects except one - were asked of different respondents. This between-subjects design minimizes respondents' inclination and ability to answer based on their attempts to guess the researchers' hypotheses. For each scenario around

130 ratings are available for the United States and for Canada, compared to about 300 observations for Germany.

The comparison across countries is conducted by means of a regression analysis. We present effects of treatments for a baseline scenario and for different variations. We take the United States as the reference country and include Canadian and German interactions for all variables. For instance, in the layoff scenarios, our baseline scenario is the one cited above. The test statistic on the German interaction with the constant reveals if perceptions of the baseline scenario differ between the United States and Germany. The variable "gentle layoff" shows for the reference country if fairness perceptions vary with the mode of implementation in the United States. The coefficient of the German interaction with "gentle layoff" is the "double difference" indicating whether the mode of implementation matters more or less in Germany than in the United States. Our tables show the results of Ordinary Least Square estimates (which are easy to interpret) as well as of ordered probit[2] (which take account of the categorical nature of the dependent variable). Additionally, the tables display F-tests of the joint significance of the Canadian and of the German interactions, which indicate if there is a significant joint difference from U.S. responses.

We distinguish between U.S. and Canadian citizens because we find significant differences between both groups of North Americans. However, we do not find significant differences between western and eastern Germany. This is somewhat surprising because the regions of Germany were separated for more than 40 years. Eastern Germany had a communist economic system for several decades until the unification in 1990. In fact, as already has been mentioned, Corneo (2000) finds some differences in the acceptance of the market between western and eastern Germany. To test whether the respondents in the two regions were similar because younger worker were not influenced by the old regime we replicated the comparison for workers born before 1970. Again, the analysis revealed no significant differences. Therefore the following analysis does not distinguish between the regions of Germany.

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[2] Because we are not interested in the thresholds themselves, the estimated cutpoints from the ordered probit estimates are not documented in the Tables. The estimated coefficients can be obtained from the authors on request.

7 Empirical results for the layoff scenarios

Summary statistics are in the Appendix. Table 1 presents a regression analysis of impact factors on fairness perceptions of layoffs.

Table 1: Fairness perceptions of layoffs
0 = very unfair, 1 = unfair, 2 = somewhat fair, 3 = fair
(Probability values from two-sided t-tests in parentheses)

	Ordinary Least Squares			**Ordered Probit**[#]		
		Canadian Interactions	*German Interactions*		*Canadian Interactions*	*German Interactions*
Constant	1,036 ** (0,00)	-0,027 (0,73)	0,094 (0,12)	-	-0,028 (0,79)	0,108 (0,17)
New technology	0,087 (0,09)	-0,231 * (0,01)	-0,306 ** (0,00)	0,114 (0,09)	-0,331 ** (0,01)	-0,399 ** (0,00)
Employee's suggestions	-0,180 ** (0,01)	-0,180 (0,07)	-0,054 (0,50)	-0,260 ** (0,00)	-0,252 (0,06)	-0,039 (0,71)
Gentle layoff	1,074 ** (0,00)	0,373 ** (0,00)	-0,503 ** (0,00)	1,384 ** (0,00)	0,524 ** (0,00)	-0,667 ** (0,00)
Production worker	0,091 (0,17)	-0,033 (0,78)	-0,067 (0,41)	0,113 (0,20)	-0,053 (0,73)	-0,084 (0,42)
General skills	0,077 (0,25)	-	0,206 * (0,01)	0,090 (0,30)	-	0,260 * (0,01)
CEO refused bonus	0,397 ** (0,00)	-	-0,223 ** (0,01)	0,489 ** (0,00)	-	-0,265 * (0,01)
CEO record bonus	-0,176 ** (0,01)	-	-0,096 (0,23)	-0,256 ** (0,00)	-	-0,113 (0,29)
Adjusted R2 / Pseudo R2	0,211			0,091		
F-Test on joint significance (probability value)		0,000	0,000		0,000	0,000
Observations	1715	853	3918	1715	853	3918
Sum of observations	6486			6486		

*) $p_t = 0,05$,

**) $p_t = 0,01$.

#) Estimated thresholds are not displayed.

Reference scenario: U.S. respondents, product market shock, engineers, 10 years tenure, firm-specific skills, harsh layoff.

First, how important is the kind of shock causing the layoffs? The theoretical prediction was that layoffs are perceived as most fair with lower product market demand, less fair stemming from the introduction of a new technology and least fair if they are the result of employees' suggestions

that increased productivity. The empirical results show that layoffs following employees' suggestions are in fact considered as the most unfair scenario in the United States, while no significant difference is found between the two other types of shock. Significantly different perceptions by Canadians or Germans are detected only for layoffs due to the introduction of a new technology, which are perceived as significantly more unfair than in the United States. This result is consistent with the general perception that the on-going process of technological change is more accepted in the latter, particularly as our U.S. sample is drawn from Silicon Valley (the host of much technological change).

Second, the response of the company to the shock seems to be most crucial for the fairness perception of layoffs. Harsh layoffs are judged as rather unfair for all kinds of shocks and in all three countries under consideration. Generally, gentle layoffs are found to be significantly fairer (by about 1.1 points on a 0 to 3 scale in the United States, 1.4 in Canada, but only 0.6 in Germany). In addition to the preceding explanation higher unemployment benefits as well as a stronger protection against dismissal in Germany might explain the lower importance of employer response in Germany.

Third, does it make a difference which occupation and which skill specificity characterizes laid-off workers? Regarding occupation fairness ratings do not differ significantly between engineers and production workers for all three countries. Turning to skill specificity (which has not been considered in the Canadian survey), in the United States fairness ratings do not vary much between laid-off workers with general or specific skill. Conversely, in Germany lay-offs of workers with specific skills are rated as more than 0.2 points more unfair than dismissals of workers with general skills.

Fourth, the role of CEO bonuses is compared for the United States and Germany (these scenarios has not been asked in the Canadian survey). In both countries dismissals are perceived as more fair in comparison to the reference scenario, when the CEO refused to obtain a bonus for successful cost-cutting. However, the refusal of the bonus payment improves fairness ratings twice as much in the United States (0.4 points) than in Germany (less than 0.2). Furthermore the reference scenario is evaluated as

significantly more fair compared to a situation where the CEO obtains an extra bonus for cost-cutting; the size of the effect does not differ significantly between the United States and Germany.

8 Empirical results for the pay-cut scenarios

Table 2 compares scenarios describing wage-cuts in a situation with high regional unemployment. In the reference scenario, where the company makes profit, fairness ratings are rather low (fewer than 37% rated the action as "fair" in all nations). No significant difference between fairness perceptions in the United States and Germany is found; Canadians, however, rate wage-cuts as significantly more unfair in this situation.

Table 2: Wage cuts for companies making versus losing money
Probability values from two-sided t-tests in parentheses)
0 = unfair, 1 = fair

	Ordinary Least Squares			**Probit**		
		Canadian	*German*		*Canadian*	*German*
		Interactions			*Interactions*	
Constant	0.368 (0.00)	-0.125 ** (0.03)	-0.055 (0.26)	-0.338 (0.00)	-0.358 (0.02)	-0.150 (0.26)
Company loses money (not makes profit)	0.359 (0.00)	0.062 (0.45)	-0.121 (0.08)	0.941 (0.00)	0.179 (0.43)	-0.326 (0.09)
Adjusted R2 / Pseudo R2	0.108			0.083		
F-Test on joint significance of difference from U.S. responses (probability value)		0.049	0.001		0.042	0.001
Observations	280	209	619	280	209	619
Sum of observations	1155			1155		

*) pt < 0.05,

**) pt < 0.01.

Reference scenario: U.S. respondents, small company, substantial unemployment, company makes profit, wages reduced by 5 percent

In all three countries pay-cuts are perceived as fairer if the company loses money than if the company makes money (replicating Kahneman et al. 1986). Their interpretation is that a firm is allowed to protect itself against losses at a transactor's expense. Acting at someone else's cost is, however, not accepted in a situation with positive profits. Still, the results indicate that wage-cuts are perceived as more unfair (although only signifi-

cant at the 10-percent-level) in Germany than in North America if the company loses money. In addition to the more wide-spread market scepticism in Germany, collective contracts set wages which are generally rated as fair and which generate both nominal and real wage rigidity (Pfeiffer 2003).

Table 3 compares pay cuts for current workers with the payment of lower starting wages for newly hired workers. Wage cuts are generally not perceived as very fair in the reference scenario, where wages are cut for a current worker, and they are rated as significantly more unfair in Germany than in North America. Furthermore, lower wages for a new worker (replacement) are generally much more acceptable than wage cuts for incumbents. Kahneman et al. (1986) interpret this in the sense that an entitlement to a reference wage does not carry over to a new transaction. Entitlements for new hires, however, seem to be much less pronounced in North America than in Germany. This might again be a hint that institutional wage setting arrangements in Germany have an impact on fairness perceptions.

Table 3: Wage cuts for current employee versus new hire
(Probability values from two-sided t-tests in parentheses)
0 = unfair, 1 = fair

	Ordinary Least Squares			**Probit**		
		Canadian	*German*		*Canadian*	*German*
		Interactions			*Interactions*	
Constant	0.333 **	0.036	-0.177 **	-0.431 **	0.098	-0.579 **
	(0.00)	(0.50)	(0.00)	(0.00)	(0.54)	(0.00)
Wage reduced for new hire (not current employee)	0.338 **	0.054	-0.206 **	0.874 **	0.171	-0.423 *
	(0.00)	(0.49)	(0.00)	(0.00)	(0.47)	(0.03)
Adjusted R2 / Pseudo R2	0.175			0.138		
F-Test on joint significance of difference from U.S. responses (probability value)		0.218	0.000		0.247	0.000
Observations	284	224	588	284	224	588
Sum of observations	1096			1096		

*) pt < 0.05,

**) pt < 0.01.

Reference scenario: U.S. respondents, small company, business satisfactory, unemployment increased, wages reduced for current worker.

Finally, the framing of the wage cut is investigated in Table 4. The reference scenario, where wages are reduced, is rated as rather unfair in all three countries, with no significant differences between them. However, in North America as well as in Germany it is perceived as much fairer if a bonus is eliminated than if the wage is reduced by an equal amount (as in Kahneman et al. 1986). In Germany the framing as a bonus-elimination seems to be even more decisive for fairness ratings than in North America. One reason might be that bonus payments play a more important role in wage-setting in the United States and Canada and that the fairness perceptions induced by the German wage setting system do not carry over to bonus payments.

Table 4: Cutting base pay versus bonus
(Probability values from two-sided t-tests in parentheses)
0 = unfair, 1 = fair

	Ordinary Least Squares			**Probit**		
		Canadian Interactions	*German Interactions*		*Canadian Interactions*	*German Interactions*
Constant	0.392 ** (0.00)	-0.108 (0.07)	-0.071 (0.14)	-0.274 ** (0.01)	-0.296 (0.07)	-0.190 (0.14)
10 percent bonus eliminated	0.198 ** (0.00)	0.077 (0.38)	0.138 * (0.05)	0.503 ** (0.00)	0.218 (0.35)	0.368 * (0.05)
Adjusted R2 / Pseudo R2	0.087			0.067		
F-Test on joint significance of difference from U.S. responses (probability value)		0.177	0.136		0.175	0.137
Observations	275	266	614	275	266	614
Sum of observations	1108			1108		

*) pt < 0.05,

**) pt < 0.01

Reference scenario: U.S. respondents, small company, business has not increased as before, wages reduced by 10 percent.

9 Conclusions

A main finding of our comparisons is that dismissals are perceived as less fair in the vast majority of scenarios in Germany than in the United States and Canada. In our opinion this finding can be explained by differences in the social perception of the market and market outcomes and by differ-

ences in specific institutional labor market arrangements which establish explicit and implicit rights and express themselves - as has been argued by Schlicht (1998) - in country-specific social norms and habits. The scenarios show in detail:

- Harsh layoffs are perceived as rather unfair in Germany as well as in the North America. Gentle layoffs, however, exert a much stronger impact on fairness perceptions in North America than in Germany. This might partly be due to lower benefits and less social protection during unemployment in North America.
- Which occupational group is affected by a dismissal - production workers or engineers - hardly influences the fairness perceptions in all three countries. Laying-off workers with general skills is perceived as more fair compared to dismissing workers with specific skills in Germany, but not in North America. An explanation might be that internal labor markets in Germany are connected with reduced chances of reemployment in other firms and with risks of long-term unemployment for workers with firm-specific human capital.
- In all regions fairness ratings of layoffs are very low when the CEO receives a bonus for cost-cutting. Acceptance, however, increases, when the bonus is refused, and this effect is even stronger in the United States than in Germany.

The wage-cutting scenarios show that wage-cuts tend to be perceived as less unfair in North America than in Germany. We would like to highlight the following results:

- In all three countries wage-cuts are treated as fairer when the company incurs losses and is not profitable. This reinforces the finding from the literature, that the cause of a wage-cut is important for its assessment.
- It is more acceptable if newly hired workers receive a lower wage than to cut wages of incumbents in the three countries. However, both procedures appear to be less accepted in Germany than in North America. If so, this implies that the employment relationship constitutes stronger entitlements and psychological contracts in Germany.
- Finally, the elimination of bonus payments is perceived as fairer than wage-cuts of an equal amount in the three countries. Cancelling a bonus is more acceptable in Germany; probably because bonus payments

are less widespread than in North America and apparently they are not covered by the norms induced by the German wage setting system.

Summing up, our results show a number of significant differences in fairness ratings across the United States, Canada and Germany. These differences can be traced to fundamental and differing social perceptions concerning the acceptability of the market and market outcomes and go hand in hand with differences in institutional labor market arrangements that have an impact on the evolvement of social norms and psychological contracts within countries.

These results are important in understanding the evolution of labor market institutions and outcomes across different regions. Many authors posited that German labor market institutions such as apprenticeship were important factors in explaining Germany's rapid growth in the generation prior to 1973. Many authors (sometimes overlapping the first group) posited that German labor market institutions such as widespread coverage by collective bargaining were important factors in explaining Germany's relative slow job growth in the generation after 1973. To the extent both labor market outcomes and institutions shape citizens' beliefs in the fairness of certain employment contracts, this history can affect the ability of the economic system to adopt new employment institutions (Alesina and Angeletos 2005). For example, Germans' lower average acceptance of pay cuts during slack labor markets for new hires as well as for current incumbents (Table 3) may partly be the result of collective bargaining. At the same time, once such norms are established they can reduce the effects of legal or bargaining changes that might increase wage flexibility in other settings.

A single cross-sectional study cannot determine the complex interplay of institutions, laws, beliefs and labor market outcomes. Future studies can build on this by examining the interplay of these forces in more nations over longer periods of time.

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Appendix

Table A.1: Scenario means for the layoff scenarios
0 = very unfair, 1 = unfair, 2 = somewhat fair, 3 = fair

	U.S.A	Canada	Germany
Product market shock, engineers, 10 years tenure, firm-specific skills, harsh layoff	0.98	0.92	1.14
Product market shock, engineers, 10 years tenure, firm-specific skills, gentle layoff	2,12	2,55	1.72
Product market shock, engineers, 10 years tenure, general skills, harsh layoff	1.14	-	1.47
Product market shock, production worker, 10 years tenure, firm-specific skills, harsh layoff	1.15	1.07	1.21
Product market shock, production worker, 10 years tenure, general skills, harsh layoff	1.18	-	1.39
Product market shock, engineers, 10 years tenure, firm-specific skills, harsh layoff, CEO refused bonus	1.41	-	1.24
Product market shock, engineers, 10 years tenure, firm-specific skills, hash layoff., CEO record bonus	0.90	-	0.84
New technology, engineers, 10 years tenure, firm-specific skills, harsh layoff	1.03	0.93	0.83
New technology, engineers, 10 years tenure, firm-specific skills, gentle layoff	2,30	2,25	1.48
New technology, engineers, 10 years tenure, firm-specific skills, harsh layoff, CEO refused bonus	1.54	-	1.15
New technology, engineers, 10 years tenure, firm-specific skills, harsh layoff, CEO record bonus	0.91	-	0.65
Employees' suggestions, engineers, 10 years tenure, firm-specific skills, harsh layoff	0.96	0.69	0.91
Employees' suggestions, engineers, 10 years tenure, firm-specific skills, gentle layoff.	1.82	2,05	1.45

Table A.2: Scenario means for the wage-cut scenarios
0 = unfair, 1 = fair

	U.S.A	Canada	Germany
Small company, substantial unemployment, company makes profit, wages reduced by 5 percent	0.37	0.24	0.31
Small company, substantial unemployment, company loses money, wages reduced by 5 percent	0.73	0.66	0.55
Small photocopying shop, business satisfactory, unemployment increased, wages reduced for current worker	0.33	0.37	0.16
Small photocopying shop, business satisfactory, unemployment increased, wages reduced for replacement	0.67	0.76	0.29
Small company, business has not increased as before, wages reduced by 10 percent	0.39	0.28	0.32
Small company, business has not increased as before, usual 10 percent yearly bonus eliminated	0.59	0.56	0.66

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