

Pay Knowledge and Referents in a Tiered-Employment Setting

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Résumé de l'article

Les recherches sur les structures salariales à double échelle montrent que les attitudes des employés face à la rémunération varient selon leur position dans cette hiérarchie. Ces études présument que l'utilisation de différents points de référence par les employés d'une ou l'autre des échelles (référénts) pour juger de l'équité expliquerait cette variation dans les attitudes. Toutefois, aucune recherche n'a vérifié cette affirmation jusqu'à présent et peu de travaux empiriques ont été entrepris pour examiner l'effet combiné de la structure salariale à double échelle et des référénts sur les attitudes. La présente étude va donc plus loin que celles déjà réalisées et, ce, à bien des égards. D'abord, elle tient compte de variables sur la connaissance du salaire, du fait qu'elles sont théoriquement sensées être liées à l'usage de référénts et qu'elles pourraient aider à prédire les attitudes vis-à-vis le salaire. Elle inclut également de nombreux points de référence sur les salaires, tant individuels que sociaux.

Ainsi, nous avons analysé les impacts de la connaissance du salaire et des référénts sur les attitudes. Nous avons aussi voulu vérifier les effets de deux interactions: (1) la connaissance du salaire lors de l'embauche dans une structure à double échelle et (2) les référénts utilisés par les groupes appartenant à chacune des échelles (groupes salariaux).

En mars 1986, les questionnaires d'enquête étaient envoyés à l'ensemble des employés de cinq établissements d'une chaîne d'alimentation. Cette chaîne avait implanté une structure salariale à double échelle depuis 1964. Celle-ci répartissait les employés en deux groupes: *produits alimentaires* et *autres produits*. Les tâches effectuées au sein des deux départements étaient similaires bien que les employés aux *autres produits* recevaient un salaire moindre. En 1978, les parties négociaient la permanence de cette structure salariale. On venait donc de créer quatre groupes salariaux pour les deux départements. L'enquête incorporait des données démographiques et des échelles pour mesurer la connaissance actuelle et passée du salaire. À partir de la littérature et des entrevues réalisées auprès de membres du syndicat, nous avons retenu 36 référénts salariaux. Ensuite, les sujets étaient interrogés sur l'importance qu'ils accordaient à chaque référént pour apprécier l'équité du salaire qu'il recevait. Une analyse factorielle suivait où neuf échelles de mesure distinctes ont été élaborées, cinq portant sur des référénts sociaux et quatre sur des référénts individuels. Du fait que les structures salariales à double échelle fixent des niveaux de salaire différents et que les points de références s'adressent spécifiquement au salaire, l'équité salariale et la satisfaction salariale agissaient comme variables dépendantes.

L'analyse à sens unique de la covariance de l'équité et de la satisfaction était significative pour les quatre groupes salariaux. Les Tests-T, dont le recours avait pour fin l'ajustement des deux variables, ont révélé une différence importante entre le département des *produits alimentaires* et celui des *autres produits*. Qui plus est, les écarts entre les groupes à bas salaire et à haut salaire n'étaient significatifs que pour les *produits alimentaires*. Quant à l'analyse par régression, elle indiquait que plus le salaire hebdomadaire était élevé et plus la connaissance du salaire antérieur était grande, plus les attitudes face au salaire étaient positives. Le seul référént social relié au salaire était interne. Quant aux points de référence individuels, les attitudes étaient plus positives lorsque le référént salarial historique était élevé et que le référént du salaire attendu était moins important. Le peu d'importance accordée aux besoins économiques était aussi un prédicateur de la perception d'équité.

Les résultats de la régression démontraient aussi que les référénts sociaux et individuels étaient étroitement liés aux attitudes vis-à-vis le salaire, rendant ainsi leur étude accessoire. Les conclusions de la recherche à l'effet que les points de référence internes pouvaient prédire les attitudes face au salaire et que les référénts externes n'avaient pas cette qualité suggèrent que les employés de l'ensemble des groupes salariaux étaient davantage préoccupés par l'équité interne qu'externe. Le fait que les référénts individuels étaient des prédicateurs des attitudes vis-à-vis le salaire suggère aussi que les employés évaluent leur traitement à la lumière des gains passés et des attentes futures ainsi que selon la capacité de satisfaire leurs besoins financiers avec le salaire actuel.

L'effet interactif de la connaissance du salaire à l'embauche par chacun des groupes salariaux avait un effet significatif sur les attitudes de chacun des deux groupes. Pour les groupes à bas salaire, une faible connaissance salariale des échelles salariales favorisait des attitudes plus négatives qu'une meilleure information. Quant aux groupes à haut salaire, la bonne et la moins bonne connaissance du salaire à l'embauche correspondaient à des attitudes plus positives. Ces deux effets en interaction supportent donc la proposition voulant qu'une faible connaissance du salaire à l'embauche suscite chez les groupes à moindre salaire des attitudes plus négatives face à celui-ci que chez les groupes à haut salaire. De plus, rien ne supportait l'hypothèse voulant que les variations dans les attitudes des groupes salariaux pourraient être attribuables à l'utilisation de points de référence différents pour juger de l'équité ou de la satisfaction. Au contraire, il semblerait que les différences d'attitude s'expliqueraient plutôt par la connaissance des employés de leur appartenance à l'une ou l'autre des échelles lors de leur embauche.

Pay Knowledge and Referents in a Tiered-Employment Setting

**James E. Martin
and
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This study examines both the main and the interaction effects of knowledge of the pay structure and social and self pay referents on pay attitudes in a setting with wage and job-duty tiers. Knowledge of the pay structure when hired and expected pay were among the most important predictors of pay fairness and pay satisfaction. The significant interaction effects found across tier levels indicated pay knowledge had a differential impact on pay attitudes. The interaction effects, however, did not support the assumption that the reason attitudes differ among employees on various tier levels is that they use different referents.

Organizations with two-tier compensation structures place new employees on pay scales which are lower than the pay scales of employees hired before the tiers were implemented. Such pay structures are controversial because they violate the basic union tenet of equal pay for equal work, and thus have been the subject of considerable speculation regarding their impact on employees (Cappelli and Sherer, 1990). Two-tier plans are found more frequently in companies undertaking expansion or where there are high rates of turnover (Martin and Heetderks, 1990), conditions often found in the retail food industry. Sichenze (1989) found that 91% of the retail food contracts covering more than 1,000 employees had wage tiers; 88% of those were permanent, where new employees never reach the high-tier level unless

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the labor contract is changed. She further noted that tiers were first negotiated in this industry in the 1960s. Thus, it differs from other industries where tiers are common, such as the airline industry. There, tiers were first negotiated in 1983 but were usually temporary, that is, over time, new employees could move to the higher pay scale of those previously hired (Cappelli and Harris, 1985; Cappelli and Sherer, 1990).

Research in tiered-employment settings has found that employees on various tier levels differ in their attitudes toward pay, commitment, and job satisfaction (Cappelli and Sherer, 1990; Lee and Martin, 1991; Martin and Heetderks, 1990; Martin and Peterson, 1987; McFarlin and Frone, 1990). That research speculated that a major reason such attitudes differ is that employees in various tier groups use different pay referents (standards by which one determines pay fairness) in evaluating their work situation. No study has tested this assumption, however, and little empirical work has been done to examine the combined effects of tiers and pay referents on attitudes.

Due to the inherent inequities of tiers, employee perceptions of pay fairness may be especially salient (Martin and Peterson, 1987). These perceptions may be explained partially by equity theory (Adams, 1965; Mowday, 1983). According to equity theory, individuals compare the ratios of their perceived rewards (outcomes) to their contributions (inputs) with the perceived ratios of other individuals (social referents), or with their own experiences and expectations (self referents, unique to the individual).¹ Social referents may be either external to the organization (external referents) or within it (internal referents) (Hills, 1980). Employee judgments of pay fairness are dependent on the social and self referents used, which in turn are linked to pay attitudes (Goodman, 1974; 1977; Ronen, 1986; Scholl et al., 1987). Further, research has suggested that employees may believe they are equitably paid in relation to certain referents and inequitably paid in relation to others (Scholl et al., 1987).

Martin and Peterson (1987) assessed pay equity in work places where high-wage tier employees were a small proportion (16%) of the total workforce and where they were a very large proportion (71%), thus at least partially controlling whom the low-wage tier employees may have used as referents. Consistent with equity theory, they found that low-wage tier employees perceived significantly greater pay equity when they worked with few high-wage tier employees than with many. Cappelli and Sherer (1990) and Lee and Martin (1991) were among the few studies to

¹ The literature also identifies a separate "system" type of referent (e.g., Goodman, 1974; 1977), which is generally based on whether one's actual situation is in line with what was stated or promised, as in an employment contract made at the time of hiring. Since the level of unionized employee compensation is based directly on the contract, we do not consider such referents relevant in most unionized settings. Thus, this study did not examine any system referent.

directly assess the relationships among various referents and attitudes in a tiered-employment setting. Both studies, however, examined only social referents. The present study extends prior research in several ways. First, it adds pay knowledge variables, as they are theoretically important to the use of referents (Goodman, 1977), and may help predict attitudes toward pay (which differ by tier level). It also incorporates multiple pay referents, including *self* referents. Thus, we examine the relationships among pay knowledge, the pay referents, and pay attitudes. We also test for the following two interaction effects on the pay attitudes: 1) pay knowledge when hired by tier level, and 2) referent usage by tier group.

FACTORS POTENTIALLY AFFECTING PAY ATTITUDES

Knowledge of the Pay Structure

Goodman's (1974; 1977) process model of social comparisons states that a necessary condition for the selection of referents is the availability of information about the referent's pay. In unionized settings, such information is readily available since pay scales are published in the contract. Further, the model states that to be selected, a referent should have relevance to the person making the comparison. To make relevant internal pay comparisons, employees must believe they have some knowledge about the pay structure (henceforth, Current Pay Knowledge). In both tiered - and non tiered - employment settings, employees typically know their own pay rate when hired. What is most likely to vary among employees is the perceived knowledge about the pay structure upon being hired (henceforth, Prior Pay Knowledge). We expect that employees' Prior and Current Pay Knowledge will be related to pay attitudes, and that the latter will be more closely associated with the referents.

The concept of Prior Pay Knowledge appears similar to the notion of understanding why pay cuts are implemented. In a study by Greenberg (1990), employees of two plants had their pay temporarily reduced by 15 percent. Employees at one plant received a careful and adequate explanation for the basis of the cuts while those at the other received an inadequate explanation. Measures of the knowledge of how pay was established and perceived pay equity were significantly lower for employees in the "inadequate explanation" plant. In our case, low-tier employees who are unaware of and/or do not understand the nature of the pay structure when hired, but subsequently learn about it, may react similarly to employees in the "inadequate explanation" plant of Greenberg's study. Both situations represent adverse reactions to

"negative surprises" regarding pay policies. Such low-tier employees are expected to perceive greater inequity than low-tier employees with high Prior Pay Knowledge. On the other hand, there would be no "negative surprise" for the high-tier employees. Thus, we expect that low Prior Pay Knowledge will be associated with more negative attitudes toward pay in the low than in the high-tier levels.

Social and Self Referents

Examining both social and self referents may help explain employee pay attitudes. Internal and external social referents both have been found to be linked to pay satisfaction and perceived pay equity (Goodman, 1974; Hills, 1980). Various self referents, such as those based on comparisons with the employees' history of earnings, current pay based on scheduling, meeting of economic needs and expected future pay, may also be salient and related to attitudes toward pay (cf. Goodman, 1974; Hills, 1980). Given the exploratory nature of this study, no specific predictions are made as to which kinds of referents will be most strongly related to pay attitudes. The assumption that the reason attitudes differ among employees on various tier levels is that they use different referents is examined as well.

Tier Groups

Tiers can be temporary or permanent. Further, forms of tiers other than wage tiers have been identified, such as job-duty tiers (Jacoby and Mitchell, 1986; Martin and Heetderks, 1990; Ross, 1985). Job-duty tiers arise when new job classes are created which contain duties similar to those in already existing jobs but paid at lower rates. This tier form is common in the retail food industry, where general merchandise (GM) department employees perform similar tasks for less pay than food department employees, but with nonfood products. Because the current setting has a general career line with movement from GM to food departments as openings occur, this tier form can be viewed as temporary. When the two wage tier levels are crossed with the two job-duty tier levels, four tier groups are created, with employees on the high or low levels of the wage tier and on the high (food) or low (GM) levels of the job-duty tier. Similarly to Cappelli and Sherer (1990), we believe this type of arrangement creates separate tier groups whose experiences and pay attitudes may be distinct.

The first two groups consist of high-wage tier employees hired before the wage tiers were implemented, in either the food or GM

departments. They not only receive higher pay than those in the same departments in the low-wage tier groups, but generally receive higher pay than employees doing similar tasks at nonunion (Cappelli and Harris, 1985) and unionized competitors (Martin and Heetderks, 1990). Employees in the other two groups are on the low-wage tier in the food or GM departments and generally receive more than employees doing similar tasks at nonunion competitors but less than those at unionized competitors without tiers (Martin and Heetderks, 1990).

Studies comparing attitudes of employees on the high and low job-duty tier levels found similar relationships between them as between employees on the high- and low-wage tier levels (Martin and Heetderks, 1990; Martin and Peterson, 1987). Therefore, we expect that pay attitudes of those on the high versus the low job-duty tier level will differ similarly to the attitudes of those on the high- versus the low-wage tier level. While most studies (Martin and Heetderks, 1990; Martin and Peterson, 1987; McFarlin and Frone, 1990) found attitudes were more negative in the low-tier levels, Cappelli and Sherer (1990) found attitudes were more *positive* in the low-tier levels. Cappelli and Sherer and McFarlin and Frone suggest that differences in the settings, such as the length of time tiers have been in existence and their permanency, account for the various findings.

METHOD

Setting

We examined a tiered-employment setting in the American retail food industry where tiers are very common. Five unionized stores of a retail food chain located in a large metropolitan area in the Great Lakes region were surveyed. This chain implemented a job-duty tier in 1964. In 1978, the union and management agreed to a permanent two-tier wage structure in conjunction with an implicit agreement by the company to expand employment by building new stores. At the same time, the number of employees and job classes on the low level of the job-duty tier (in GM departments) was greatly increased. The tiers were continued in the labor agreements of 1981 and 1984. In addition, the 1984 agreement froze the top rates of the wage progressions for both wage tiers and for GM and food positions. Employees not at the top rate, all of whom were in the low-wage tier groups, would still receive increases in their base wage until they reached the top rate. Thus the setting provides an opportunity to examine employee attitudes in several tier groups.

Sample

Survey questionnaires were sent to all 2,680 employees of the five stores in March, 1986. Two of those stores had been open for less than a year, with the remaining stores having been open for at least seven years. The sample consisted of 822 respondents, representing a 31% response rate. After eliminating 68 respondents not on permanent wage tiers and deleting surveys with missing data, the sample size was 652. To assess its representativeness, comparisons were made with the population. Several differences ($p < .001$) were found, with the sample being approximately one year older, having eight months more seniority, and earning \$.45 an hour more than the total population. Compared to the population, the sample contained a higher proportion of females (74 vs 65%) and proportionately more respondents from the high- (14 vs 10%) than the low-wage tier (86 vs 90%). The proportion of employees on the two job-duty tier levels did not differ between the sample and population. Although response biases may have existed due to these differences, their magnitude was relatively small, and there were enough respondents within each tier group to allow meaningful analyses.²

The sample had a mean age of 27 (SD = 8.3), a mean organizational tenure of 3.1 years (SD = 3.6), and mean weekly earnings of \$179 (SD = 105). Most respondents were cashiers (36%) or GM clerks (21%) and were in part-time positions (80%). The mean years of education was 12.7 (SD = 1.4). Several sample characteristics differed significantly ($p < .001$) among the tier groups. Seniority was lowest in the low-wage tier GM (1.3 years, SD = 1.5) and food groups (2.5 years, SD = 2.5). It was highest in the two high-wage tier groups (10.2 years, SD = 2.0). Age was significantly lower in the two low-wage tier groups (26.3 years, SD = 8.3) than in the high-wage tier groups (34.3 years, SD = 7.7). Weekly pay differed significantly among all four groups. Low-wage tier GM employees earned \$126 per week (SD = 59), low-wage tier food employees, \$187 (SD = 94), high-wage tier GM employees, \$275 (SD = 89) and high-wage tier food employees, \$341 (SD = 126). Education level was lowest in the low-wage tier groups and highest in the high-wage tier groups. While the proportion of females did not differ among the groups, there were more nonwhites in the GM (7.2%) than in the food (3.5%) departments.

Measures

The survey included demographic items and scales relating to Current and Prior Pay Knowledge developed for this study. Current Pay Knowledge consisted of two standardized items: "How knowledgeable

² Differences in the distributions of some independent variables between the sample and the population do not necessarily bias the regression estimates. See the discussion in Becker (1978:98, n. 11).

are you about your collective bargaining contract?" and "How familiar are you with the pay schedules listed in your contract for people and jobs other than yourself?" Prior Pay Knowledge consisted of the following items with the stem "When I was hired, I knew": 1) "about the relative differences in pay among employees in different job classifications at [my employer]," 2) "what the top rate was for someone in my job classification," and 3) "how my pay compared to the pay of other employees in my job at [my employer]."

Based on the literature, and on interviews with union members, 36 pay referent items were selected for the survey. We asked how important each referent item was for evaluating one's pay fairness. To determine their dimensionality, the items were subjected to a principal components analysis with varimax rotation. Nine factors with eigenvalues greater than 1 were extracted. Using the factor loadings, the 34 referent items which loaded above .40 on only one factor were combined to form nine separate referent scales. Five were social referents and four were self referents. The social referents included internal and external referents. The self referents pertained to comparisons with one's self in terms of work scheduling, expected pay, economic need, and pay history. The referent items, the factors, and the factor loadings are presented in Martin and Lee (1991).

Because tiers determine relative pay levels and because the referent items referred specifically to pay, two pay-related attitudes were used as the dependent variables. One scale measured Pay Fairness, and consisted of the following four items with the stem "My pay is fair compared to the pay of": 1) "others doing the same kind of work for other employers," 2) "others doing the same kind of job in my store," 3) "[high-wage tier] employees in general in my store," and 4) "[low-wage tier] employees in general in my store."³ The second scale was Pay Satisfaction, measured by three items concerned with feelings toward pay in general (Institute for Social Research, 1975). Table 1 presents the means, standard deviations, reliability estimates, and intercorrelations of the variables.

3 Scholl et al. (1987) have argued that the use of dependent measures, which included pay comparison items whose favorability was an indication of satisfaction, could artificially link such measures to the pay referents. To examine for such confounding, separate inter-item correlation matrices were computed within the two wage-tier groups between the Pay Fairness and referent items. If an artificial linkage did exist, we would expect to obtain higher correlations between items referring to the same comparison group than between items referring to different comparison groups. For example, we would expect to find the Pay Fairness item, "My pay is fair compared to [low-wage tier] employees", more strongly associated with the referent item, "What [low-wage tier] employees are paid", than with other referent items. Our empirical examination did not find that this was the case for any Pay Fairness item within either wage-tier group.

Analyses

To assess whether pay attitudes differed among the four tier groups, one-way analyses of covariance (ANCOVAs) were run for the pay attitudes. Both Cappelli and Sherer (1990) and McFarlin and Frone (1990) suggest that other variables, such as earnings, part- or full-time status, sex, age, seniority, race, and education, may be correlated with tier level and affect pay attitudes as well. Thus, age, sex, race, weekly pay, and education served as the covariates.⁴

To examine the relationships between the pay knowledge variables, the nine pay referents and the pay attitudes, several hierarchical regressions were run. In the first step of each model, the five covariates were entered as control variables. Three dummy variables representing the four tier groups were entered in the second step. Prior and Current Pay Knowledge were entered in a third step, followed by the nine referent scales in a fourth step.

Hierarchical moderated regression was used to examine the following two assumptions: 1) low Prior Pay Knowledge will be associated with more negative attitudes toward pay in the low- than in the high-tier groups, and 2) the reason attitudes vary across tier groups is due to the use of different referents by such groups. To explore the first assumption, the cross products of Prior Pay Knowledge and the dichotomous variable of wage-tier level (1 = low, 2 = high) and, separately, job-duty tier level (1 = GM, 2 = food), were computed. In both models, the covariates were entered in the first step, the tier dummies in the second, and Prior Pay Knowledge in the third. In the fourth step, we entered the wage-tier cross products in one model, and in the other, the job-duty tier cross products. In exploring the second assumption, the 27 cross products of the three tier-related dummy variables and each referent were entered as a block after the fourth step of the regression equations described in the previous paragraph. When entered in the last step, the cross products represent the interaction effects after controlling for all relevant main effects.

⁴ To avoid multicollinearity problems, we multiplied pay rate by the number of hours worked, thus combining both earnings and part- or full-time status. Seniority could not be used as a control variable since it was confounded with the tier levels.

TABLE 1
Means, Standard Deviations, Scale Reliabilities and Intercorrelations Among the Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Mean	S.D.		
Demographic Variables																								
Sex (M = 1, F = 2)	.26	-.14	-.12	-.19	.07	.06	-.01	-.18	.05	.03	-.01	.03	-.01	.02	.10	.17	.04	-.10	-.04	-.10	-.04	1.74	.44	
Age (Years)		-.01	-.02	-.27	.36	-.06	-.07	-.17	.06	.13	.09	.11	.05	-.01	.04	.26	.07	.00	.01	.01	.01	27.14	8.34	
Education (Years)			.09	-.25	.06	-.18	-.02	-.26	.21	.01	-.03	-.08	-.01	.00	.11	.14	.13	-.12	-.13	-.12	-.12	12.74	1.42	
Race (White = 1, Nonwhite = 2)				-.05	-.05	.09	-.12	.02	.07	.03	.06	-.02	-.04	.06	.10	.07	.09	-.03	-.08	-.08	-.08	1.05	.21	
Weekly Pay (\$)				.49	-.38	.23	.36	.08	.12	.00	.02	.07	.06	.00	.25	.05	.26	.29	.29	.29	.29	179.55	105.36	
Variables																								
Wage Tier (Low = 1, High = 2)							-.15	.19	.21	.03	.06	.02	.04	.02	.00	-.05	.11	-.02	.13	.17	.14	.38	.14	
Job-Duty Tier (GM = 1, Food = 2)							.32	.15	-.07	-.07	-.12	-.11	-.05	.03	-.03	.10	-.03	.31	.48	.48	1.55	.50		
Knowledge Variables																								
Prior								.79	.16	-.03	.01	-.05	-.07	-.05	-.01	-.04	-.01	-.01	.33	.33	10.39	5.28		
Current								.69	.13	.22	.09	.00	.20	.04	.09	.16	.15	-.02	.00	.00	.00	.88	.88	
Referents									.88	.40	.45	.31	.52	.21	.38	.33	.51	-.08	-.12	-.12	3.06	1.05		
External - Cohorts - General									.86	.57	.35	.56	.30	.39	.34	.37	.19	-.21	-.21	-.21	3.25	1.02		
Internal - Specific										.84	.46	.47	.23	.32	.20	.44	-.13	-.16	-.16	-.16	2.58	1.17		
External - Specific Industries											.81	.40	.17	.29	.16	.33	-.13	-.11	-.11	-.11	2.03	1.06		
Family/Social												.74	.18	.35	.19	.40	-.18	-.16	-.16	-.16	2.93	1.04		
Internal - General																								
Referents																								
Scheduling															.79	.40	.27	.31	-.03	-.05	-.05	3.94	0.89	
Expected Pay															.76	.32	.45	-.19	-.22	4.11	0.88	0.88		
Economic Need															.70	.26	-.10	-.05	-.05	-.05	3.89	1.02		
Historical Pay																.72	.00	-.05	-.05	-.05	2.83	1.10		
endent Variables																								
Pay Fairness																								
Pay Satisfaction																					.76	.65	14.64	5.78
																					.93	.93	5.48	

ns: After list-wise deletion of cases with missing data, n = 652. The scale reliabilities are shown along the diagonal. All $|r| > |.07|$ are significant at the .05 level; all $|r| > |.10|$ are significant at the .01 level; all $|r| > |.12|$ are significant at the .001 level.

RESULTS

The ANCOVAs for both Pay Fairness and Pay Satisfaction were significant ($p < .001$). Follow-up t-tests of the adjusted means for Pay Fairness indicated that the high-wage tier food group was significantly more favorable than the other three groups, and that the low-wage tier food group was more favorable than the low-wage tier GM group. After controlling for the demographic variables, the two GM groups did not differ significantly from each other. The same tests for Pay Satisfaction indicated that all groups differed from each other, except for the two GM groups. Thus, for both variables, there were strong differences between the food and GM department groups. Differences between the high- and low-wage tier groups were significant *only* within the food department groups. Supplemental ANCOVAs of Current and Prior Pay Knowledge with the same covariates were significant ($p < .001$) only for Prior Pay Knowledge, with more such knowledge reported in the high-wage and high job-duty tier groups.

Table 2 shows the standardized regression weights for each variable in each equation after the fourth step. The beta weights shown indicate the effect of each variable on the pay attitudes after controlling for all other variables. While not shown, each of the four sets of variables significantly ($p < .001$) increased the variance explained in the dependent variables. Several common features existed in both models. Higher weekly pay, higher Prior Pay Knowledge, lower Current Pay Knowledge, lower importance of the Internal-Specific referent, higher importance of the Historical Pay referent, and lower importance of the Expected Pay referent were related to more positive pay attitudes. Lower importance of the Economic Need referent was also a predictor of Pay Fairness.

An intriguing result was the negative relationships found between Current Pay Knowledge and the pay attitudes. This is partly due to the positive associations that Current Pay Knowledge had with the two internal referents ($r_s = .22$ and $.20$, Table 1). This suggests that what employees know about their current pay situation is based largely on their knowledge of what others within the organization earn, which in turn would make internal comparisons more salient. As further evidence for that suggestion, Current Pay Knowledge had nonsignificant zero-order correlations with Pay Fairness and Pay Satisfaction. However, when the effects of all other variables, including the internal referents, were controlled for in the fourth-step regression models shown in Table 2, negative betas were obtained.

TABLE 2
**Step 4 Standardized OLS Regression Weights
 Predicting the Dependent Variables**

<i>Predictors</i>	<i>Day Fairness Beta</i>	<i>Pay Satisfaction Beta</i>
Demographic		
1. Sex	-.04	.04
2. Age	-.01	-.05
3. Education	.07	.04
4. Race	.03	.00
5. Weekly Pay	.19***	.15***
Tier Dummy Variables		
6. Low-Wage Tier GM	-.09	-.12
7. Low-Wage Tier Food	.07	.24**
8. High-Wage Tier Food	.07	.19**
Pay Knowledge		
9. Prior	.25***	.19***
10. Current	-.14***	-.11**
Social Referents		
11. External-Cohorts-General	.02	-.01
12. Internal-Specific	-.11*	-.13**
13. External-Specific Industries	.01	.00
14. Family-Social	-.03	.03
15. Internal-General	-.08	-.03
Self Referents		
16. Scheduling	.05	.03
17. Expected Pay	-.14***	-.19***
18. Economic Need	-.10*	-.04
19. Historical Pay	.15***	.11**
Total R ² (Adj. R ²)	27(25)	36(34)
Overall F	12.42***	18.59's***

* $p < .05$. ** $p < .01$; *** $p < .001$. $n = 652$.

The interaction effects of Prior Pay Knowledge by each tier form were significant ($p < .05$) for both pay attitudes. Following the procedure of Cohen and Cohen (1983), we plotted the interaction patterns. The plots in Figures 1 and 2 are similar and indicate that for both low-tier groups, low Prior Pay Knowledge was associated with less favorable pay attitudes than high Prior Pay Knowledge. For the high-tier groups, low and high Prior Pay Knowledge was associated with more similar and more favorable pay attitudes. These two interaction effects supported the prediction that low Prior Pay Knowledge would be associated with more negative attitudes toward pay in the low than in the high-tier groups.

Entering the 27 cross products of the nine referents and the three tier dummy variables into a fifth step of the regression equations did not increase the R²s significantly for either pay attitude, indicating the lack of any interaction effects. Thus, no support was found for the assumption that the reason employee pay attitudes in different tier groups vary is

because they used different referents to determine Pay Fairness and Pay Satisfaction.

DISCUSSION

The findings underscore the importance of studying how the use of multiple pay referents and pay knowledge relates to pay attitudes in a tiered-employment setting. The change in the variance explained when the referents are added to the regression equations indicates that they account for unique variance over and above the situational and pay knowledge variables. The results regarding the Internal-Specific referent suggest that employees in all tier groups were concerned with internal pay equity. Given the built-in inequities in such settings, employees may be primarily concerned about equity relative to others on different tier levels (McFarlin and Frone, 1990). When considered in light of equity theory (Adams, 1965; Mowday, 1983), high-wage tier and food employees would be most likely to perceive overpayment inequity, since job inputs (i.e., duties and effort) are roughly comparable across tier levels but pay is not (Ross, 1985). On the other hand, employees in the low-tier groups would be most likely to perceive underpayment inequity.

Employees in most tiered-employment settings are less likely to be concerned about external equity, given that they are generally paid more relative to their counterparts in nontiered settings, especially those on the high-tier levels (Cappelli and Harris, 1985; Martin and Heetderks, 1990). This is a likely reason that external referents were not related to the pay attitudes, and is consistent with Summers and DeNisi's (1990) findings. In a situation where employees were paid above what competing firms paid, they found that only 5.5% relied on external referents for pay comparisons.

The differences between the settings of Cappelli and Sherer (1990) and those of the other studies likely affected the referents used by employees. In the Cappelli and Sherer setting, the high-tier rates were lowered to below those of the competition. They found the high-tier employees in their setting used external referents. Thus, it is likely that those employees felt deprived relative to the competition, and therefore had less favorable attitudes than otherwise would have been the case. The low-tier employees in their study, all of whom had not more than one year seniority, would likely base their comparisons on their previous experience and not use internal referents. Such employees would not feel deprived in relation to the high-tier employees, and thus would have more favorable pay attitudes. Based on the above, we believe that the differences between the settings of the various studies are associated with the use of different referents (i.e., internal versus external). This in

turn may explain why, unlike in this and in the other studies, Cappelli and Sherer found more favorable pay attitudes in the low- than in the high-tier groups.

Our findings concerning the self referents are also of interest. Consistent with Goodman (1974), who suggested that the use of historical referents enhanced the feelings of self-esteem of employees, the Historical Pay referent had a positive relationship with pay attitudes. This finding is also consistent with the argument of Cappelli and Sherer (1990), that employees with recent increases in earnings, such as newly hired low-tier employees, would use self referents from their past experience as a basis for comparison. They further proposed that such comparisons would tend to show employees they were relatively better off than they had been.

The finding that the Expected Pay referent was negatively related to pay attitudes is consistent with Cappelli and Sherer's (1990) argument that because other contract concessions generally are associated with the negotiation of tiers, high-tier employees would have lowered expectations about their future income. In the present study, the most obvious concession was the freezing of the top pay rates of all job classes in 1984, which also could have lowered the expectations of low-tier employees hired before the freeze. Further, low-tier employees hired after the freeze would likely have their expectations lowered as they learned about the tiers. Our findings concerning this referent are consistent with research by Oldham et al. (1986), who found that greater employee use of self-future referents, such as Expected Pay, was associated with less favorable attitudes. Oldham et al. suggest that their sample of employees may have been frustrated by factors in their organization, including pay, and thus became dissatisfied or withdrew by quitting or being absent. In our setting, one key frustrating factor would be the perceived and actual restrictions on pay increases which accompanied the institution of tiers (Martin and Heetderks, 1990), and may explain why the Expected Pay referent was so salient.

We also examined the assumption that the reason employees' attitudes in separate tier groups varied was that they used different referents. That assumption was not supported, as the interaction effects were not significant. Part of the reason attitudes differed across tier groups, however, may be due to prior knowledge of the pay structure. The results concerning Prior Pay Knowledge suggest how attitudes may have changed after tiers were begun. Similar to employees in the inadequate explanation plant of Greenberg's (1990) study, employees in the low-tier groups with low Prior Pay Knowledge were more likely to change to less favorable attitudes and/or leave the firm. In contrast, employees with high prior knowledge in all tier groups generally had more favorable pay attitudes.

It should be noted that the extent of the individuals' pay knowledge when they were hired was indicated retrospectively, and not at the time of hiring. Employees dissatisfied with their work environment may have stated that they were unaware of the pay structure situation when hired as a way of reducing dissonance (Adams, 1965; Mowday, 1983). On the other hand, those with more favorable attitudes may have stated that they knew about the situation all along. If such rationalization had taken place, Current and Prior Pay Knowledge would be highly related to each other, and their pattern of correlations with the other variables would be similar. The results indicated this was not the case. Current and Prior Pay Knowledge had only modest intercorrelations.⁵ Moreover, the former had very low correlations with the pay attitudes but modest correlations with seven referents while the latter had high correlations with the pay attitudes but only one significant correlation with the referents. Thus, we believe such rationalization did not occur.

These results suggest that Prior rather than Current Pay Knowledge was more important in this setting in explaining pay attitudes. Current Pay Knowledge may have affected the pay attitudes through its relationship with the referents. Prior Pay Knowledge likely affected the pay attitudes through its relationship with tier level.

IMPLICATIONS

The findings relating to Prior Pay Knowledge suggest that where tiers exist, information about the pay structure should become part of a realistic job preview (RJP) (Wanous, 1989). Since a major purpose of RJP is to reduce turnover, and because turnover is believed to be a major problem in tiered-employment settings (Sichenze, 1989), including pay structure information in such previews seems especially warranted. Research is necessary, however, to determine if incorporating pay structure information in RJP would in fact help reduce turnover in tiered-employment settings. Further, some authorities, such as Dalton and Kesner (1986) and Ross (1985), have argued that high turnover in such a setting may be desirable from the employer's standpoint, as it keeps employees on the lower steps of the pay scales, thus helping to reduce labor costs.

The results also suggest that the approach taken by employers with tiers to influence the choice of pay referents may not work in settings

⁵ To test whether perceived Current Pay Knowledge may have led to an over estimate of Prior Pay Knowledge, the correlations between the two variables for each of the four tier groups were calculated. They were not found to be practically significant (r s from .03 to .10), suggesting the absence of this potential biasing effect.

where the wage rates are above those of the competition. Such employers generally attempt to persuade employees to use external referents and accept the low-tier rate as the standard comparison rate in the relevant industry (Cappelli and Sherer, 1990; Walsh, 1988). Our finding that internal referents (but not external referents) and self referents, especially Expected Pay, predicted pay attitudes, suggests that companies and unions should devote more effort to changing how employees view the internal wage structure and their expectations of future pay. One way to do this is to do what the union in the setting we studied did (after the data collection). It raised some of the low-tier rates up to the high-tier level over the term of the next contract, while at the same time creating a new lower-tier level for future employees. This would make the internal pay structure seem more fair. The union officers believed that the remaining low-tier employees had more positive attitudes than they would have had if the other rates not been raised, because such employees believed their rates would eventually be equalized with those of the high-tier employees in future negotiations. Consistent with Cappelli and Sherer, and as predicted by equity theory (Adams, 1965; Mowday, 1983), we would expect that employees whose rates were being raised, as well as those who thought their rates would be raised, would have more positive attitudes than those on the low level of permanent tiers who did not believe such raises would occur.

Because we studied only one firm, it is uncertain how well the results will generalize to other settings. In addition, it was not possible to determine the extent to which information affected the use of pay referents over time. A longitudinal design could show whether or not employees switched referents after they acquired greater knowledge about the pay structure and work situation and if their perceived pay knowledge when hired remained stable. It may also be possible that the use of certain referents initially affected employees' feelings about pay, but their attitudes, in turn, affected how they subsequently used or distorted information about these referents to help maintain perceived equity (Adams, 1965; Mowday, 1983). More research is necessary in other tiered-employment settings examining the role of pay knowledge and referents in relation to pay attitudes.

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La connaissance des salaires et points de référence dans une structure à double échelle

Les recherches sur les structures salariales à double échelle montrent que les attitudes des employés face à la rémunération varient selon leur position dans cette hiérarchie. Ces études présument que l'utilisation de différents points de référence par les employés d'une ou l'autre des échelles (référénts) pour juger de l'équité expliquerait cette variation dans les attitudes. Toutefois, aucune recherche n'a vérifié cette affirmation jusqu'à présent et peu de travaux empiriques ont été entrepris pour examiner l'effet combiné de la structure salariale à double échelle et des référénts sur les attitudes. La présente étude va donc plus loin que celles déjà réalisées et, ce, à bien des égards. D'abord, elle tient compte de variables sur la connaissance du salaire, du fait qu'elles sont théoriquement sensées être liées à l'usage de référénts et qu'elles pourraient aider à prédire les attitudes vis-à-vis le salaire. Elle inclut également de nombreux points de référence sur les salaires, tant individuels que sociaux. Ainsi, nous avons analysé les impacts de la connaissance du salaire et des référénts sur les attitudes. Nous avons aussi voulu vérifier les effets de deux interactions: (1) la connaissance du salaire lors de l'embauche dans une structure à double échelle et (2) les référénts utilisés par les groupes appartenant à chacune des échelles (groupes salariaux).

En mars 1986, les questionnaires d'enquête étaient envoyés à l'ensemble des employés de cinq établissements d'une chaîne d'alimentation. Cette chaîne avait implanté une structure salariale à double échelle depuis 1964. Celle-ci répartissait les employés en deux groupes: *produits alimentaires* et *autres produits*. Les tâches effectuées au sein des deux départements étaient similaires bien que les employés aux *autres produits* recevaient un salaire moindre. En 1978, les parties négociaient la permanence de cette structure salariale. On venait donc de créer quatre groupes salariaux pour les deux départements. L'enquête incorporait des données démographiques et des échelles pour mesurer la connaissance actuelle et passée du salaire. À partir de la littérature et des entrevues réalisées auprès de membres du syndicat, nous avons retenu 36 référents salariaux. Ensuite, les sujets étaient interrogés sur l'importance qu'ils accordaient à chaque référent pour apprécier l'*équité* du salaire qu'il recevait. Une analyse factorielle suivait où neuf échelles de mesure distinctes ont été élaborées, cinq portant sur des référents sociaux et quatre sur des référents individuels. Du fait que les structures salariales à double échelle fixent des niveaux de salaire différents et que les points de références s'adressent spécifiquement au salaire, l'équité salariale et la satisfaction salariale agissaient comme variables dépendantes.

L'analyse à sens unique de la covariance de l'équité et de la satisfaction étaient significatives pour les quatre groupes salariaux. Les Tests-T, dont le recours avait pour fin l'ajustement des deux variables, ont révélé une différence importante entre le département des *produits alimentaires* et celui des *autres produits*. Qui plus est, les écarts entre les groupes à bas salaire et à haut salaire n'étaient significatifs que pour les *produits alimentaires*. Quant à l'analyse par régression, elle indiquait que plus le salaire hebdomadaire était élevé et plus la connaissance du salaire antérieur était grande, plus les attitudes face au salaire étaient positives. Le seul référent social relié au salaire était interne. Quant aux points de référence individuels, les attitudes étaient plus positives lorsque le référent salarial historique était élevé et que le référent du salaire attendu était moins important. Le peu d'importance accordée aux besoins économiques était aussi un prédicateur de la perception d'équité.

Les résultats de la régression démontraient aussi que les référents sociaux et individuels étaient étroitement liés aux attitudes vis-à-vis le salaire, rendant ainsi leur étude accessoire. Les conclusions de la recherche à l'effet que les points de référence internes pouvaient prédire les attitudes face au salaire et que les référents externes n'avaient pas cette qualité suggèrent que les employés de l'ensemble des groupes salariaux étaient davantage préoccupés par l'équité interne qu'externe. Le fait que les référents individuels étaient des prédicateurs des attitudes vis-à-vis le salaire suggère aussi que les employés évaluent leur traitement à la lumière des gains passés et des attentes futures ainsi que selon la capacité de satisfaire leurs besoins financiers avec le salaire actuel.

L'effet interactif de la connaissance du salaire à l'embauche par chacun des groupes salariaux avait un effet significatif sur les attitudes de chacun des deux groupes. Pour les groupes à bas salaire, une faible connaissance salariale des échelles salariales favorisait des attitudes plus négatives qu'une meilleure information. Quant aux groupes à haut salaire, la bonne et la moins bonne

connaissance du salaire à l'embauche correspondaient à des attitudes plus positives. Ces deux effets en interaction supportent donc la proposition voulant qu'une faible connaissance du salaire à l'embauche suscite chez les groupes à moindre salaire des attitudes plus négatives face à celui-ci que chez les groupes à haut salaire. De plus, rien ne supportait l'hypothèse voulant que les variations dans les attitudes des groupes salariaux pourraient être attribuables à l'utilisation de points de référence différents pour juger de l'équité ou de la satisfaction. Au contraire, il semblerait que les différences d'attitude s'expliqueraient plutôt par la connaissance des employés de leur appartenance à l'une ou l'autre des échelles lors de leur embauche.

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