

CHAPTER 9 :

DO HAPPY WORKERS WORK HARDER? **The effect of job satisfaction on work performance**

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Summary

*Opinions about the consequences of happiness on work differ. There is no research on the effects of life-satisfaction on productivity but there is a lot of research on the link between job satisfaction and work performance. This research shows modestly positive correlations with productivity, absenteeism and labour turnover. These correlations tend to be stronger among white collar workers. It is still largely unclear to what extent satisfaction effects productivity or vice versa. See **Scheme 1**.*

There are different claims about the effect of happiness on productivity. Some think that the enjoyment of life will produce involvement and smooth interaction, thus boosting productivity. Others rather expect that happiness will reduce the motivation to seek improvement and make them passive and dull.

There is no research on the effects of overall happiness or life-satisfaction on productivity. However, there is a lot of research on the relationship between job satisfaction and work performance. Job satisfaction is quite highly correlated with overall happiness, and can be looked at as one of its main components. Hence the results of the available research data are at least suggestive in this discussion.

The Human Relations movement, of Elton Mayo and others, believed that job satisfaction had beneficial effects, including increased work performance (Argyle, 1988). Let us consider whether this is in fact the case. Do satisfied workers really work harder? If they do, is it because they are satisfied or vice versa?

Measuring job satisfaction

How can job satisfaction be measured? The most widely used measure is a very simple one. Overall job satisfaction can be assessed by simple questions such as `Choose one of the following

following statements which best tells how well you like your job: I hate it, I dislike it, I do not like it, I am indifferent to it, I like it, I am enthusiastic about it, I love it' (Hoppock, 1935). Later measures have used a series of scales to measure different components of job satisfaction. Many scales have been devised for this purpose: one book reviews no fewer than 249 scales of various kinds (Cook et al., 1981). However, one of the most widely used is the Job Description Index, which contains five scales, seventy-two items in all, which are answered 'yes', 'no' or 'uncertain' (Smith, Kendall and Hulin, 1969). The five scales are designed to measure satisfaction in the following areas: (1) work on present job, e.g. fascinating; (2) present pay, e.g. income inadequate for normal expenses (-); (3) opportunities for promotion, e.g. fairly good chance for promotion; (4) supervision on present job, e.g. lazy (-); (5) people on present job, e.g. talk too much (-). The minus signs show reversed items, i.e. those that show dissatisfaction.

It may be important to distinguish between positive and negative aspects of job satisfaction. Herzberg et al. (1959) stated that (positive) satisfaction is due to good experiences, and that these are due to 'motivators' - achievement, recognition, the work itself, responsibility and advancement. Dissatisfaction is due to bad experiences caused by 'hygiene' factors - supervisors, fellow workers, company policy, working conditions, and personal life (Herzberg et al., 1959). This was supported by critical incident studies in which workers were asked to describe occasions when they had felt exceptionally good or exceptionally bad. However, the theory was supported only when this method was used. Wall et al. (1971) found that if workers were asked similar questions in an informal and confidential interview, this pattern of results was not obtained. They concluded that the Herzbergian pattern of results was due to 'ego-defensive processes'; the results would now be described perhaps as 'defensive attribution' or as 'self-presentation'. Good events are said to be due to one's own achievements, bad events to the failings of others. As a result it is generally considered that this theory has failed (Griffin and Bateman, 1986). This may be a mistake, since research on happiness has found partial independence of positive and negative aspects. Research on joy confirms Herzberg's finding that achievement is important, but it also finds that relationships with other people are even more important, and not just a source of distress as he found (Argyle, 1987).

The correlation between job satisfaction and productivity

Brayfield and Crockett (1955) astounded the world of occupational psychology by finding an average correlation of only + .15 from the 26 studies published up until then. The latest meta-analysis of 217 separate correlations (in 74 studies) also found an overall correlation of + .15 (Iaffaldano & Muchinsky, 1985).

Eight of these studies produced correlations of +.44 or above; these were all supervisory or professional workers, using self, peer or supervisory ratings of performance. Petty et al. (1984) found an overall correlation of +.23; this was +.31 for supervisors and above, +.15 for those at lower levels. Some recent studies have found correlations which are higher than this under certain conditions. An overall correlation of +.35 was found in one, but it was as high as +.60 when there was little pressure for performance, i.e. when hard work was more voluntary (Bhagat, 1982).

It is interesting that the correlation is greater for those in supervisory or professional jobs. In these jobs performance depends less on external pressures, like wage incentives or assembly-line speeds, and more on motivation, creativity and helpfulness. Laboratory experiments on mood induction have shown that putting subjects in a good mood leads to (1) better and more original problem-solving, (2) greater helpfulness and generosity, and (3) more positive attitudes to other

people (Argyle, 1987).

Job satisfaction is also correlated with other kinds of desirable behaviour at work - there is less sabotage, stealing, doing work badly on purpose, and spreading rumours or gossip to cause trouble (Mangoine and Quinn, 1975). This effect was stronger for those over thirty-five years of age, probably because they would only engage in such behaviour if they had a very strong sense of grievance. Bateman and Organ (1983) found that non-academic university staff who were satisfied engaged more in a wide variety of 'good citizenship' behaviour at work - they were more punctual, dependable, helpful, cooperative and tidy, and they created less waste, made fewer complaints and were angry less frequently.

The relation between job satisfaction and absenteeism has also been studied. It would be expected that happy workers would turn up more often to receive the benefits which they enjoy at work. In fact, the average correlation is quite low: $-.09$ in one meta-analysis (Hackett and Guion, 1985), and $-.22$ in another (McShane, 1983). However, there is a very skewed distribution of absenteeism - most people are not absent at all, which reduces the possible size of correlations (Hackett and Guion, op.cit.). The relationship is greatest with satisfaction for pay and promotion (Rosse and Miller, 1984), and for the work itself (Hackett and Guion, op.cit.).

There is a clearer correlation with voluntary or unexcused absence which is not due to sickness. The relationship is stronger for women, manual workers, workers in larger firms and younger workers (Metzner and Mann, 1953). These are the people who are absent more, so that there is a less skewed distribution.

Similar analyses have been made of job satisfaction and labour turnover, and the correlation is typically $-.20$ to $-.30$ and rarely greater than $-.40$ (Mobley, 1982). Carsten and Spector (1987), in a meta-analysis of forty-seven studies, found an overall correlation of $-.23$ (but of $-.51$ under high unemployment, see below). Labour turnover correlates with different components of job satisfaction, but especially satisfaction with job content (Mobley et al., 1979).

Longitudinal and other studies designed to show direction of causation

These correlations do not show the direction of causation: if A and B are correlated, A may cause B, B may cause A, C may cause both, or there may be some combination of these three processes.

For productivity, Bateman and Organ (1983) used a cross-lagged design, with a time-interval of 6 weeks. They found that satisfaction predicted performance $+.43$, vice versa $+.39$; the best predictor of performance was past performance ($+.80$). Cross-lagged correlations are now out of favour; a better design is to use multiple regression to find for example whether job satisfaction at time 1 predicts performance at time 2, when performance at time 1 is also used as a predictor. In this study the regression weight was $+.12$ (n.s.) but the time interval used was very short.

See **Scheme 3**

For absenteeism, Clegg (1983) took measures of 4 points over a 2-year period, and used regression equations to study causal influences. Satisfaction was not an independent predictor of absenteeism, but absenteeism did predict later satisfaction ($-.14$).

The same has been found for labour turnover (Mobley et al., 1979). Various causal models of labour turnover have been put forward, in all of which low job satisfaction is proposed as one of the basic causes, the last step in the causal chain; tests of these models have shown that turnover is predicted by intention to quit, which in turn is predicted by (low) satisfaction. Lee and Mowday (1987) found that satisfaction accounted for 12.4% of the variance of intention to quit. However, multivariate studies show that better predictions of labour turnover can be made if a number of other predictor variables are used, showing that job satisfaction is not the only path generating turnover (Mobley et al., 1979).

Further evidence about direction of causation is provided by the effect of level of unemployment. Labour turnover is less when other jobs are more difficult to find, for example when there is high unemployment. On the other hand, the link between turnover and job satisfaction is greater when there is high unemployment ($r = -.51$); under these conditions, when other jobs are hard to get, people leave mainly because they are dissatisfied. Under full employment some people drift in and out of jobs just for a change, not because they are dissatisfied (Shikiar and Freudenberg, 1982).

It has been suggested that low job satisfaction is the cause of withdrawal, which may take the form of absence, lateness, labour turnover, and even sickness and accidents. One version is that there are alternative kinds of withdrawal, and that these (labour turnover, absenteeism and lateness) are among four general responses to job dissatisfaction: exit: i.e. leave, look for another job; voice, i.e. talk to supervisor, write letters; loyalty, i.e. stick it out, wait patiently; neglect, i.e. absenteeism and lateness (Farrell, 1983). Spencer (1986) found that turnover had a correlation of $-.24$ with perceived availability of 'voice', e.g. formal grievance procedures, suggestion schemes, employee-management meetings. However, when there is high absenteeism, labour turnover is also high - both forms of exit seem to go together. Low productivity could be seen as another form of withdrawal. A different version of the withdrawal theory is that the alternatives are hierarchically ordered, the minor forms of withdrawal being used first and leaving the organization last. Clegg (1983) found that lateness was a predictor of later absenteeism, providing evidence of this hierarchy operating.

There have been useful causal analyses of the effects of job satisfaction on mental health. Low job satisfaction is correlated with high rates of anxiety, depression, psychosomatic symptoms, and coronary heart disease; (poor) mental health is more closely associated with (low) job satisfaction than it is with features of the job, suggesting that job satisfaction is an intervening state in the causal chain (Wall, Clegg and Jackson, 1978).

Another investigation found that job satisfaction was a predictor of length of life among workers. It correlated $+0.26$, better than physical functioning ($+0.21$) (Palmore, 1969). There is a high correlation between job dissatisfaction and coronary heart disease ($r = +0.83$), with other variables held constant (Sales and House, 1971). It has been found that job dissatisfaction among nurses predicted tension on the job, particularly for dissatisfaction with the work and with the doctors. On the other hand, tension also predicted job dissatisfaction; it worked both ways (Bateman and Strassen, 1983). Another investigation used causal modelling on the relations between some of these variables, and concluded that job dissatisfaction and boredom caused anxiety and depression, which in turn led to bodily complaints (French, Caplan and van Harrison, 1982).

Effects of manipulation of job satisfaction

Another possible way of studying the effects of job satisfaction is by seeing if enhancing satisfaction results in greater productivity, etc. However, most of these studies have not been analysed to distinguish between three possible causal sequences:

(1) changed conditions \longrightarrow job satisfaction \longrightarrow productivity

(2) changed conditions $\begin{cases} \nearrow \text{job satisfaction} \\ \searrow \text{productivity} \end{cases}$

(3) changed conditions \longrightarrow productivity \longrightarrow job satisfaction

However, if satisfaction is enhanced and productivity is not, this would at least show that satisfaction does not influence productivity.

The effects of job redesign.

Hackman and Oldham (1980) proposed that five features of jobs both motivate performance and provide job satisfaction. Many studies have found correlations between these features and job satisfaction, and a meta-analysis by Loher et al (1985) found the following averages: (a) task identity (completing a clear and identifiable piece of work) +.32; (b) task significance (the degree to which the job has an impact on the lives of others) +.38; (c) skill variety +.41; (d) autonomy (the degree to which the job provides freedom, independence and discretion) +.46; (e) feedback (the extent to which information about effectiveness is available) +.41.

What happens when jobs are redesigned to enhance these features? Two kinds of improvement have been distinguished, which enhance these features in different ways.

(1) Job enlargement. Kelly (1982) analysed a number of cases of job enlargement, and found increases in productivity per man hour of the order of 20 per cent. However, this was not necessarily caused by increased job satisfaction and motivation, but by removing delays due to workers waiting for each other to pass on materials, and by improving methods of working, e.g. using both hands, and better-designed work stations. If there was an increase in pay, then additional increases in productivity of the order of a further 35 per cent or so were found. In most cases job satisfaction increased but in some cases productivity improved while job satisfaction did not, and vice versa.

(2) Job enrichment. Does job enrichment e.g. inspecting own work, fare any better? According to Kelly's analysis, it does not for manual workers: any increases in productivity were due to bargains of more pay for doing more things, with a resultant reduction in labour costs. However, for white-collar workers the findings are more positive. For example, Janson (1971) studied the effect of the enrichment of the work of typists who were asked to change their own computer tapes and to correct their own mistakes. The results are shown in **Scheme 2**. A number of other studies have obtained similar increases in productivity, associated with increased job satisfaction or other job attitudes.

The results of these studies are rather inconclusive from our point of view: improved work design seems to increase both satisfaction and output, absenteeism and turnover. We cannot therefore reject any of the three causal models.

The effect of altered social arrangements.

Research on happiness shows that social relationships with friends and others are a most important cause, probably the most important cause, of joy and other aspects of happiness (Argyle, 1987). It would be expected that improvements at work from this point of view would enhance job satisfaction. It is found that job satisfaction is greater in cohesive working groups, for popular members, in smaller groups, and when there is more opportunity for interaction (Argyle, 1989).

(1) Increasing cohesiveness. Van Zelst (1952) put together cohesive teams of bricklayers on the basis of a sociometric survey, and found that over an eleven-month period the cohesive groups achieved 12 per cent more output, with a 16.5 per cent reduction in costs for materials, and a reduced labour turnover. Keller (1986) found that cohesiveness was the best predictor of the rated success of project groups. However, in some studies a curvilinear relationship has been found between cohesiveness and productivity, with a fall in output under very high cohesiveness -probably because too much time and effort is devoted to social activities.

Sundstrom (1986) describes a group of clerical workers who were enclosed in a steel mesh cage. They worked hard, but also engaged in a lot of fooling about, for example "sniping" with elastic bands. Management stopped all this by means of better surveillance, but the rate of work fell sharply.

Cohesiveness increases output when the work requires interaction because it is socially motivated and a source of social satisfaction. Cohesiveness probably affects output most when helping is important. It was found, for example, that the foremen of 60 per cent of high-output sections in a heavy engineering factory said that their men were good at helping each other, compared with 41 per cent of foremen in low-output sections (Katz and Kahn, 1952). If individuals are working quite independently, and little help is needed, cohesiveness produces little advantage. Indeed it can have a negative effect since workers spend more time in games and irrelevant conversation.

(2) Re-organising work teams. Wall et al., (1986) reported a field experiment in which autonomous groups were introduced in a large confectionery factory. In the experimental groups job satisfaction and commitment were increased, but there was no change in motivation, work performance or mental health. There were, however, some gains in productivity per worker since there were fewer supervisors. Kelly (1982) analysed the success of thirty-five cases in which flexible working groups were introduced, and reported a different result. He found that although there were productivity increases in many cases, improved figures were always accompanied by pay increases, and could have been due to these rather than to increased motivation based on the new working arrangements. In contrast, Pasmore et al., (1984) analysed fifty-three cases of new work teams all of which showed improvements in the sphere of attitudes, safety and quality of work. In addition, at least 81 per cent of cases reported an increase in productivity and turnover and a drop in costs and absenteeism.

Changes designed to increase job satisfaction may have the result of increasing the intrinsic or social rewards of work. If the working group is made more cohesive, this means that under many conditions work performance is given greater social rewards, via greater cooperation and help, in addition to purely interpersonal rewards. If jobs are redesigned to increase skill variety, autonomy etc. this means that work performance will be intrinsically more rewarding.

CONCLUSIONS

Job satisfaction and work performance correlate overall at about +.15, though more strongly than this for white collar workers. However, little is known about causality.

Absenteeism has a similar relationship with job satisfaction, though more for voluntary absenteeism and for certain groups of workers.

Labour turnover is more strongly correlated with satisfaction, and quite strongly when there is high unemployment. And there is clear evidence that low satisfaction causes turnover.

REFERENCES

Argyle, M. (1987),
The Psychology of Happiness.
London: Methuen.

Argyle, M. (1989),
The Social Psychology of Work. 2nd edition.
Harmondsworth: Penguin.

Bateman, T.S. and Organ, D.W. (1983),
Job satisfaction and the good soldier: the relationship between affect and employee "citizenship".
Academy of Management Journal, 26, 587-95.

Bateman, T.S. and Strasson, S. (1983),
A cross-lagged regression test of the relationships between job tension and employee satisfaction.
Journal of Applied Psychology, 68, 439-45.

Bhagat, P.S. (1982),
Conditions under which stronger job performance-job satisfaction relationships may be observed: a closer look at two situational contingencies.
Academy of Management Journal, 25, 772-89.

Brayfield, A.H. and Crockett, W.H. (1955),
Employee attitudes and employee performance.
Psychological Bulletin, 52, 396-424.

Carsten, J.M. and Spector, P.E. (1987),
Unemployment, job satisfaction, and employee turnover: a meta-analytic test of the Muchinsky model.
Journal of Applied Psychology, 72, 374-9.

Clegg, C.W. (1983),
Psychology of employee lateness, absence, and turnover: a methodological critique and an empirical study.
Journal of Applied Psychology, 68, 88-101.

Cook, J.D., Hepworth, S.J., Wall, T.D. and Warr, P.B. (1981),
The Experience of Work.
London: Academic Press.

Farrell, D. (1983),
Exit, voice, loyalty and neglect as responses to job satisfaction, a multidimensional scaling study.
Academy of Management Journal, 26, 596-607.

French, J.R.P., Caplan, R.D. and van Harrison, R. (1982),
The Mechanisms of Job Stress and Strains.
Chichester: Wiley.

Griffin, R.W. and Bateman, T.S. (1986),
Job satisfaction and organizational commitment.
In C.L. Cooper and I.T. Robertson (eds.), *International Review of Industrial and Organizational Psychology -1986*. Chichester: Wiley.

Hackett, R.D. and Guion, R.M. (1985),
A re-evaluation of the absenteeism -job satisfaction relationship.
Organizational Behavior and Human Decision Processes, 35, 340-81.

Hackman, J.R. and Oldham, G.R. (1980),
Work Redesign. Reading,
Mass: Addison-Wesley.

Herzberg, F., Mausner, B. and Snyderman, B.B. (1959),
The Motivation to Work.
New York: Wiley.

Hoppock, R. (1935),
Job Satisfaction.
New York: Harper.

Iaffaldano, M.T. and Muchinsky, P.M. (1985),
Job satisfaction and job performance: a meta-analysis.
Psychological Bulletin, 97, 251-73.

Janson, R. (1971),
Job enrichment in the modern office.
In J. Maher (ed.), *New Perspectives in Job Enrichment*. New York: Van Nostrand.

Katz, D. and Kahn, R.L. (1952),
Some recent findings in human relations research.
In E. Swanson, T.M. Newcomb and E. Hartley (eds.), *Readings in Social Psychology*. New York:
Holt, Rinehart & Winston.

Keller, R.T. (1986),
Predictors of the performance of project groups in R and D organizations.
Academy of Management Journal, 29, 715-26.

Kelly, J.E. (1982),
Scientific Management, Job Redesign and Work Performance.
London: Academic Press.

Lee, T.W. and Mowday, R.T. (1987),
Voluntarily leaving an organization: an empirical investigation of Steers and Mowday's model of turnover.
Academy of Management Journal, 30, 721-43.

Loher, B.T., Noe, R.A., Moeller, N.L. and Fitzgerald, M.P. (1985),
A meta-analysis of the relation of job characteristics to job satisfaction.
Journal of Applied Psychology, 70, 280-9.

Mangoine, T.W. and Quinn, R.P. (1975),
Job satisfaction, counter productive behaviour and drug use at work.
Journal of Applied Psychology, 60, 114-16.

McShane, S.L. (1983),
Job satisfaction and absenteeism: a meta-analytic re-examination.
In G. Johns (ed.), *Proceedings of the Annual Conference of the Administrative Science Association of Canada*. Administrative Science Association of Canada, Ottawa.

Metzner, H. and Mann, F.C. (1953),
Employee attitudes and absence.
Personnel Psychology, 6, 467-85.

- Mobley, W.H. (1982),
Employee Turnover: Causes, Consequences and Control. Reading, Mass.: Addison-Wesley.
- Mobley, W.H., Griffith, R., Hand, H. and Meglino, B. (1979),
A review and conceptual analysis of the employee turnover process.
Psychological Bulletin, 62, 493-522.
- Palmore, E. (1969),
Predicting longevity: a follow-up controlling for age.
The Gerontologist, 9, 247-50.
- Pasmore, W., Francis, C. and Haldeman, J. (1984),
Sociotechnical systems: a North American reflection on empirical studies of the seventies.
Human Relations, 35, 1179-1204.
- Petty, M.M., McGee, G.W. and Cavender, J.W. (1984),
A meta-analysis of the relationship between individual job satisfaction and individual performance.
Academy of Management Review, 9, 712-21.
- Rosse, J.G. and Miller, H.E. (1984),
Relationship between absenteeism and other variables.
In P.S. Goodman, R.S. Atkin and Associates (eds.), *Absenteeism*. San Francisco: Jossey-Bass.
- Sales, S.M. and House, J. (1971),
Job dissatisfaction as a possible risk factor in coronary heart disease.
Journal of Chronic Diseases, 23, 224-53.
- Shikiar, R. and Freudenberg, R. (1982),
Unemployment rates as a moderator of the job dissatisfaction - labour turnover relation.
Human Relations, 10, 845-56.
- Smith, P.C., Kendall, L.M. and Hulin, C.L. (1969),
The Measurement of Satisfaction in Work and Retirement.
Chicago: Rand McNally.
- Spencer, D.G. (1986),
Employee voice and employee retention.
Academy of Management Journal, 29, 488-502.
- Sundstrom, E. (1986),
Work Places.
Cambridge: Cambridge University Press.
- Wall, T.D., Clegg, C.W. and Jackson, D.R. (1978),
An evaluation of the job characteristics model
Journal of Occupational Psychology, 51, 183-96.

Journal of Occupational Psychology, 51, 183-96.

Wall, T.D., Kemp, N.J., Jackson, P.R. and Clegg, C.W. (1986),
Outcomes of autonomous workgroups: a long-term field experiment.
Academy of Management Journal, 29, 280-304.

Wall, T.D., Stephenson, G.M. and Skidmore, C. (1971),
Ego-involvement and Herzberg's two-factor theory of job satisfaction: an experimental field study. British Journal of Social and Clinical Psychology, 10, 123-31.

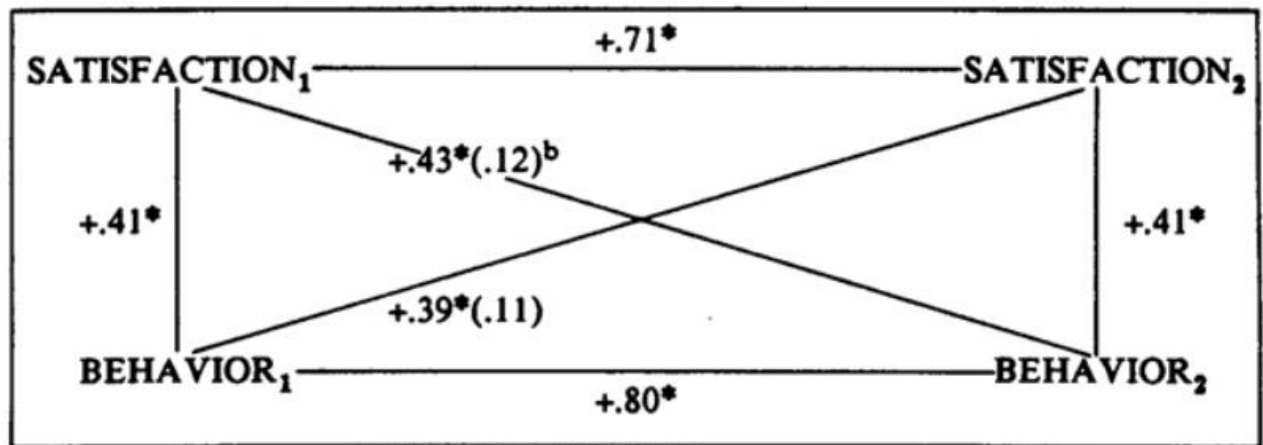
Zelst, R.H. van, (1952),
Validation of a sociometric regrouping procedure.
Journal of Abnormal and Social Psychology, 47, 405-12.

Scheme 1. Average correlations between job satisfaction and performance		
	n.	av.r
A. Productivity		
Brayfield and Crockett (1955)	26	+.15
Iaffaldano and Muchinsky (1985)	74	+.15
Petty et al. (1984):		
supervisors and above	11	+.31
below supervisor	9	+.15
B. Absenteeism		
Hackett and Guion (1985)		-.09
McShane (1983)	31	-.22
C. Labour turnover		
Carsten and Spector (1987)	47	+.22

Scheme 2. Enrichment of the work of typists (from Janson, 1971)				
	Before enrichment	After enrichment	<u>Control Group</u>	
			Before	After
Blocks typed per hour	70	85	68	68
Errors per week	15-20	<5	15-20	15-20
Herzberg job motivation scale	50	60	50	47

Scheme 3

Cross-lagged relationships between overall satisfaction and citizenship behaviors^a



- ^a Cross-lagged patterns of relationship between citizenship behavior and specific facets of job satisfaction reveal essentially the same results as overall satisfaction. These data are available from the first author on request.
- ^b Path coefficients are in parenthesis.
- * $p < .001$.