

JOB SATISFACTION - THE SEARCH GOES ON*

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Job satisfaction is a very popular development area of social investigation at the moment; the British Department of Employment has commissioned a report on it¹ and set up a steering group and unit to work on the subject; the OECD has a working party on job satisfaction and considers it a "fundamental concern";² and Mr. Francis Blanchard,³ the Director General of the ILO, in a speech made in July said that it was the most important subject to be investigated at the moment. Moreover, this interest is not something new - it goes back for well over 50 years.

In spite of this there is still no fundamental agreement about what "job satisfaction" is, how it is meant to reveal itself, its causes and its consequences. Batteries of job satisfaction questions are developed and their results assiduously reported, but no one seems to be asking the vital questions about what these responses mean, or what their policy implications might be.

There is a further problem with regard to the meaning of job satisfaction. The concept has been derived from two very different traditions, and their influence must be separated if the concept is to be understood.

The history of research into the satisfaction of employees at work predates the work of Elton Mayo and goes back to the First World War in Britain; it was stimulated originally by Lloyd George's concern that nothing should hamper the output of workers, in the munitions industry especially. It was in the various committees concerned with the health of these workers that the idea arose that the satisfaction of employees at work would have to be investigated with the aim of reducing accidents, absenteeism, high labour turnover and industrial action.⁴ Actually, this tradition of research was really more interested in job dissatisfaction, or its antecedent, "fatigue", and only then if it could be held to affect output.

The thrust of the social indicators movement however is very different, it arose long after World War II in reaction to the all-pervasiveness of the gross national product as a single measure of social welfare, and was concerned with developing other less gross measures to tap the well-being of a population. It gave rise to two different kinds of measures:

* Presented to the Conference on Subjective Indicators of the Quality of

1) objective indicators of well-being, e.g. number of doctors per 1000 population (although we should note that the choice of such indicators is still essentially a subjective evaluation) and 2) subjective indicators, - measures of satisfaction or happiness as perceived by the recipients of social welfare.

These diverse backgrounds gave rise to two rather different conceptions of job satisfaction. They also gave rise to two very different meanings of the concept "objective indicators". The older, job research tradition has produced a functional definition of an objective indicator of job satisfaction; i.e. various different pieces of work behaviour are treated as being indications of dissatisfaction, and although from a social point of view the dissatisfaction might be considered to be the problem, from the employer's point of view the very indicators themselves are the problems and they are ultimately concerned with reducing these. In a recent publication from the Tripartite Steering Group on Job Satisfaction, Making Work More Satisfying,⁵ nine such pieces of behaviour are listed as indicators of job dissatisfaction; low productivity, poor quality output, general grievances, recruitment difficulties, high absenteeism and turnover, interruptions in production, low moral, requests for transfer and poor timekeeping. The social indicators movement however has thrown up a different idea of an objective indicator, namely an objective indicator of the conditions of work, with no intrinsic relation to satisfaction or dissatisfaction implied.

This distinction must be clearly observed when we come to examining the correspondence between "objective and subjective indicators" in the case of employment. It will be clear from the preceding discussion that in the first case, there must be correspondence between the two by definition, since both claim to be indicating the same thing, namely job satisfaction. But in the second case, distinguishing between objective and subjective indicators only has any point if there is a possibility that they will not correspond, in order to highlight the differences between the subjective perceptions of the policy makers and those of the recipients.

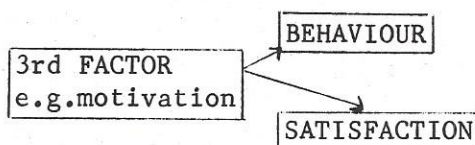
Let us first then review what we know of the correspondence between the types of work behaviour that are held to indicate dissatisfaction, and subjective measures of that satisfaction.

There has been no fundamental change since V.H.Vroom summed up the literature on the subject in Work and Motivation in 1964⁶. He concluded that -

1. There was a consistent negative relationship between job satisfaction and the probability of resignation.
2. There was a less consistent negative relationship with absence from work, which was strengthened if only unexcused absence was taken into account.
3. There was some indication of a relationship with accidents at work.
4. There was no simple relationship with job performance.

But a lot of doubt has been thrown on the exact nature of the relationship found. In the case of absenteeism, Ferguson has declared that there is no one causative factor⁷ of absence from work and it reflects, for example, the results of both heavy drinking and double-jobbing. Behrend found that it reflected the level of employment in the area,⁸ and Nicholson has concluded that "where absence is genuinely an act of withdrawal from dissatisfying work this is an institutionalised response, often partly under the control of factors such as group norms and organisational practices."⁹

But of course it is only when you assume that the model is SATISFACTION → BEHAVIOUR that it is worthwhile attempting to change work behaviour by influencing job satisfaction. Any relationship that is found between the two could just as well be explained by a model



which may be the case with absenteeism,

or even BEHAVIOUR → SATISFACTION which many researchers, including Porter and Lawler,¹⁰ Sutermeister,¹¹ and Locke¹² have concluded is the case with the relationship between job performance and satisfaction.

The lack of correspondence between the stated objective indicators of job satisfaction and subjective ratings does not only stem from the fact that the objective indicators that have been picked are not unidimensional indicators of satisfaction. There has also been a wide variety of different conceptions of satisfaction itself, and it has been defined and measured in a great variety of ways.

Wanous and Lawler¹³ identified nine basically different ways in which job satisfaction has been operationalised, and when they applied them and then put them into a convergent and discriminant validity matrix of the multimethod-multitrait type, they concluded that they were actually tapping different traits.

This is why it is not at all inconceivable to find a group of workers who seem 'satisfied' with their jobs when measured today with the aid of various question batteries, but who are prepared to strike tomorrow in pursuit, for example, of a higher wage. This kind of behaviour causes difficulties for traditional job satisfaction research, but it is perfectly explicable - surely someone who evaluates his job highly will both derive pleasure from doing it and expect that he should receive his reward for it?

If further headway is to be made in establishing a causal model which relates causes and conditions of satisfaction, satisfaction itself and work behaviour, much more work must be put in first on establishing the meaning of satisfaction, or the contradictory and inconclusive results in this area will continue. Schwab and Cummings¹⁴ after reviewing the literature, decided that further satisfaction-performance theorising was a waste of time until much more work had been put into the concept of satisfaction. And that brings us on to our second consideration, which is the correspondence between subjective indicators of job satisfaction and objective indicators of work conditions. Satisfaction is no longer operationally defined as that state which does not lead to unproductive behaviour; it should be considered as a threefold process of 1) perception of a condition 2) ranking of a condition, and 3) evaluating that condition from the point of view of its ability to "fulfill" one. Thus we are interested in how objective conditions are perceived, ranked and evaluated.

It is a particularly interesting problem in the field of employment. Any survey that has been done in Britain has found seemingly high levels of satisfaction with job. In a survey we did we found a mean score of 8.3 on a 0-10 scale to measure job satisfaction. And yet at the same time we know that people were working long hours, often doing boring and routine jobs, noise levels in factories in Britain have been shown to be dangerously high, stress at work is becoming a major medical problem, many workers were on a 3-day week and earning so little that Family Income Supplement was needed to bring up their income to a very low minimum. "Objective indicators" of dissatisfaction of the kind we have just discussed were rising, and yet by and large people still said that they were very satisfied with their jobs.

So the problem is set out starkly (1) to make sure that satisfaction as measured by these techniques is a valid construct and (2) to investigate the paths of perception of the objective conditions.

The survey that I have referred to was a national sample survey of adults on the electoral roll living in urban areas south of the Caledonian Canal, the fieldwork taking place from October 1973 - January 1974. The survey was designed to build up models of perceived life satisfaction. It was hypothesised that life satisfaction was made up of a combination of satisfaction with various domains of life and the importance of each domain to the respondent; it was further hypothesised that each domain could similarly be split into subdomains, and aspects of that domain, and that the domain satisfaction score would itself be made up of the perceived satisfaction and importance of each of the subdomains.

Job came out as the highest single mean satisfaction score (all satisfaction ratings were assessed on a 0-10 scale running from 'extremely dissatisfied' to 'extremely satisfied'). Table 1 below shows the mean scores in the different domains for those who work; the picture in the whole sample is much the same, except that there are more old people and this has the effect of depressing satisfaction with health.

Table 1

Mean satisfaction scores among workers (N = 587)

Job	8.3
Health	7.8
House	7.6
Town	7.6
Standard of Living	7.4
Leisure	7.3
District	7.3
Democracy	6.7
Finance	6.7
Education received	6.6

The reason why job is so high is that it contains relatively fewer low scorers, not because it contains more high scorers. This might only mean that people find it a lot more difficult to admit to dissatisfaction with their jobs now than with the kind of education they received.

Furthermore, job comes only second to health in answer to the question "Which item on the list do you think is most important for you personally in determining how satisfied or dissatisfied you are with your life as a whole these days?", and third after health and standard of living in the three most important things in life. (See Table 2). However, this is only true for those who work, and for those who do not work one's house and one's income are considered to be more important. Our survey also confirmed the well-established fact that more non-manual than manual workers consider jobs to be an important aspect of their lives.

Table 2

% of people mentioning importance of different domains of life

	a) to those at work		b) to those not at work	
	<u>MOST</u>	<u>LEAST</u>	<u>MOST</u>	<u>LEAST</u>
Health	63.7	6.1	70.2	4.5
Stand.liv.	49.4	6.0	53.0	5.8
Job	46.5	7.7	26.6	30.9
House	46.0	23.3	54.1	13.2
Income	39.4	10.4	40.9	9.3
Leisure	16.5	54.4	17.9	55.8
Democ.	13.8	50.1	11.1	48.9
District	13.1	68.0	18.7	46.0
Education	7.9	55.3	4.8	70.4

All those who worked were asked to rate their satisfaction with twenty

summarised below:

Table 3

<u>Mean job subdomain satisfaction scores</u>	<u>\bar{x}</u>
Friendly and helpful people to work with	8.5
The reputation of your firm	8.4
The actual work itself	8.4
Using your own initiative	8.3
The holiday arrangements	8.3
Relations with your supervisor or manager	8.3
The job security	8.2
Convenience of travel	8.1
The hours you work	8.1
Being able to do the things you do best	8.0
The time you are given to do the work	8.0
The safety precautions	8.0
Provision of adequate equipment and materials	8.0
The ability and efficiency of management	7.7
Public respect for the work you do	7.5
The physical surroundings	7.3
The total pay, including overtime and bonuses	7.0
The pension scheme in your firm	6.2
Participating in management	6.1
Promotion prospects	5.6

The hypothesis put forward was that job satisfaction overall would be made up of a sum of these subdomains. In other words, if an individual has 20 measures x_i of satisfaction with job, other things being equal we would expect the mean of these, $\bar{x}_s (\frac{\sum x_i}{20})$ to approximate closely to his overall job satisfaction, x_0 .

But of course one way in which other things are not equal is the importance that people attach to different aspects of their job, and indeed there is a wide range in the numbers of people who say that a particular aspect of job is one of the three most important to them in determining their overall job satisfaction.

Table 4

Nos. mentioning job subdomains as important

The total pay including overtime and bonuses	198	
Friendly and helpful people to work with	177	
The actual work itself	174	
Convenience of travel	141	
The job security	129	
The hours you work	127	
Using your own initiative	127	
Relations with your supervisor or manager	105	
Being able to do the things you do best	102	
Promotion prospects	69	
The safety precautions	60	
The holiday arrangements	55	
The reputation of your firm	55	
Provision of adequate equipment and materials	48	
The pension scheme in your firm	41	
The ability and efficiency of management	36	
The time you are given to do the work	35	
Public respect for the work you do	33	
The physical surroundings	29	
Participating in management	20	N = 587

If a person's satisfaction with an important aspect is higher than his \bar{x}_S , then it is hypothesised that $x_0 > \bar{x}_S$, and if it is less, then $x_0 < \bar{x}_S$. How big the difference is between x_0 and \bar{x}_S can reasonably be assumed to depend on how much the x_i for the important items differ from \bar{x}_S (There is no overall pattern of important items being either higher or lower in the satisfaction scores than the rest.)

We tested this hypothesis by forming a new weighted mean \bar{x}_W in which the important items were multiplied by 2, i.e. giving them extra weight. This had the effect of raising \bar{x}_W relative to other people in the sample when the important items exceeded \bar{x}_S and lowering it when they were less. This produced a zero-order correlation coefficient of .64 with x_0 as compared to .40 for the correlation between unweighted \bar{x}_S and x_0 . If we used only the mean of the three items that were mentioned as most important (and ignored all the others) as a predictor of x_0 , we increased the correlation coefficient from .40 to .52. It therefore seems, contrary to the arguments put forward by E.A.Locke¹⁵ that adding importance as a separate measure from satisfaction is a valid notion and allows us to explain quite a

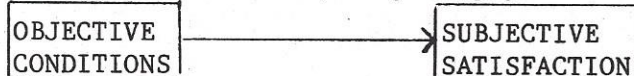
By splitting job satisfaction up into subdomain satisfaction and subdomain importance, and by getting such a clear indication that this was a feasible project from the high correlation coefficient obtained, we have not made any progress towards discovering the cause of job satisfaction, but we have considerably redefined the problem. We previously wondered why job satisfaction was so high (and suggested that it might be the kind of area where people will not admit to low scores), now that we can conceptualise satisfaction as an averaging out of subdomain salience and satisfaction, we can now ask why so many of the subdomain satisfaction scores are at the (high) mean level that they are. We immediately see tentative support for the idea that it may only be a reflection of what people are prepared to admit that they find dissatisfying: the top 4 items in the list could reflect on the personal capability and effectiveness of the respondent if he were to say he were dissatisfied, whereas the bottom four are areas where he can lay the blame squarely on the shoulders of his employers without fear that it reflects badly on him.

So the new problem now is to explain the subdomain satisfaction scores. This cannot be done in a generalised way, as they are very different types of items and I shall proceed by analysing an example from each group in turn, and, where appropriate, its correspondence to objective conditions in that subdomain.

Type A Item. The first type can be dealt with very quickly. There is a possibility that in a list of job aspects you will include items which are not really separate subdomains which can be summed into an overall work satisfaction measure, but which are measures of the same thing as overall job satisfaction i.e. they lack independence. The item in the list which elicited satisfaction with "the actual work itself" can be considered such an item. This item is not really significantly related to anything apart from job satisfaction - the zero-order correlation coefficient between the two is .66.

Type B Item. Next, there are items where the subjective subdomain satisfaction and the objective conditions in that subdomain correspond well. The first example I want to consider is satisfaction with convenience of travel to work, which produced a mean score of 8.1 in our sample, and which was rated as important by 141 people out of 587. Two pieces of "objective" information were also collected, namely the frequency of use of public transport and the time that the journey took people to get to work.

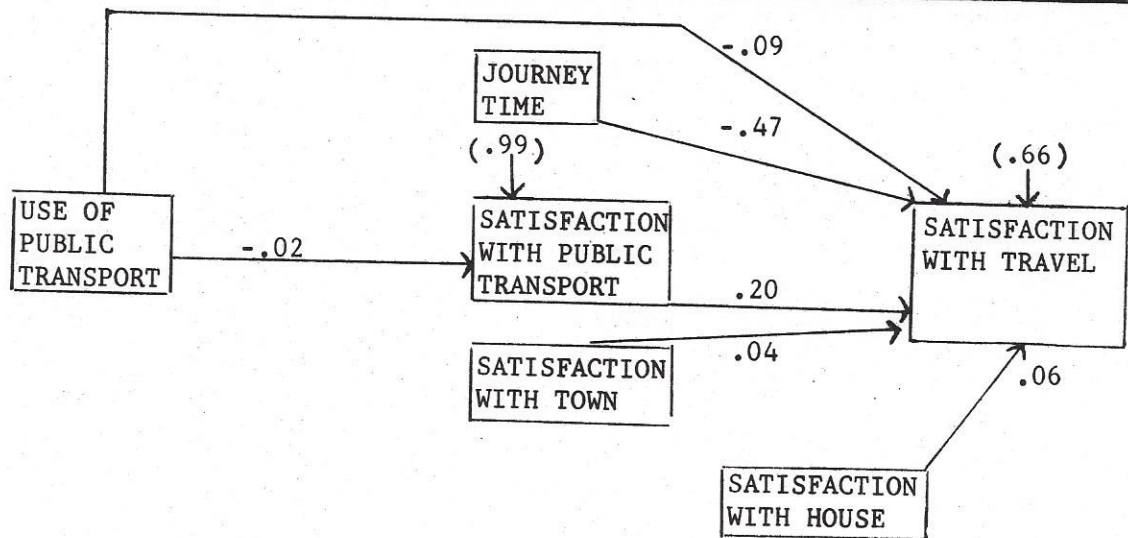
The model we wanted to test was, very simply:



Our hypothesis was not an earth-shattering one: the longer it took you to get to work the less satisfied you would be with the convenience of travel to your place of work. We further hypothesised that the degree of use of public transport would be related to one's satisfaction with public transport and would have an effect on overall satisfaction with the journey in that way.

In order to test these hypotheses, we used path analysis as a conceptual guide to drawing up ordered models of the variables and evaluating the impact of the different direct effects (measured by β weights). We found that bringing satisfaction with one's house and town into the picture made a very small contribution to explaining the overall variance. Living somewhere pleasant may be a slight mediating factor toning down the unpleasantness of having to travel a long way to work, but it should be very clear that by far the biggest factor of all is the time the journey takes the respondent and other contributory factors are negligible in comparison with this. In other words, when asked to rate satisfaction with the convenience of travel to work, respondents are able to view this independently from their satisfaction with their house or town and actually consider how long it takes them to get there. The process is 1) perception of the length of journey to work; 2) ranking of different journeys - i.e. $\frac{1}{2}$ an hour is longer than 15 mins. but shorter than one hour; 3) evaluating the poles of the scales - i.e. travelling a long time is a bad thing but travelling a short time is a good thing. We must grasp firmly the idea that these three processes are separate and that differences in subjective satisfaction ratings of the same objective conditions could come from differences in any of the three.

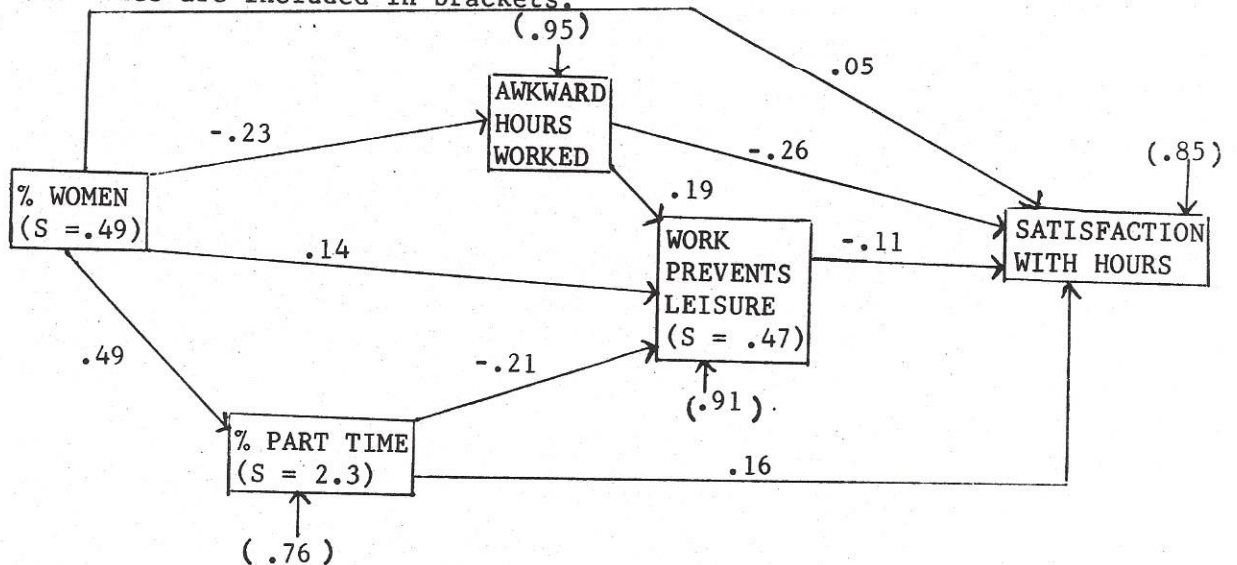
Figure 1 - Path model for satisfaction with convenience of travel to work.



Let us also consider the relationship between the objective conditions of hours worked and satisfaction with these. In the survey we had collected information about whether the respondent worked full time or part time, and we had responses to the question "To what extent does your job involve shiftwork or awkward hours?" We originally thought that there might be influences intervening between these items and satisfaction with hours, such as family commitments and number of leisure activities pursued. But this proved not to be the case, the regression coefficients between these items and satisfaction with hours being insignificantly small.

Figure 2 - Path model for satisfaction with hours

Where dummy variables have been used, standard deviations of these variables are included in brackets.



The one item which did intervene in the relationship between objective and subjective indicators was a variable which told us if people considered that their work prevented them from doing more outside activities. They were asked if they wanted to spend any more time per week doing any of a long list of recreational pursuits, and if they said 'yes' they were then asked what was stopping them from doing these things. Then a dummy variable was constructed from responses to this; where work was mentioned it is 1 and where not it scores 0. In other words satisfaction with hours among people working the same amount of awkward hours could be expected to differ according to the extent to which they perceived their work as preventing leisure activities, but not simply according to the number of leisure activities each pursued.

It is interesting to note that the relationship between sex and satisfaction with hours ($r = .19$) has almost disappeared; through looking at this path diagram we can see that much of this zero-order relationship was operating through the fact that so many more women than men work part-time, and that fewer of them work awkward hours. The graph transmittance which operates indirectly from sex to satisfaction with hours is $(-.23 \times -.26) + (.49 \times .16)$ which is approx. .14; (I have neglected paths through 'work prevents leisure' because they are so small). So the fact that women say they are more satisfied than men with their hours is most importantly a correlate of the different objective conditions of their employment and not something deriving purely from the greater satisfaction potential of women.

Of the two objective conditions brought into the model, it would seem that having to work awkward hours or shiftwork is a greater source of variation in satisfaction with hours than the number of hours worked. But this can only be a very tentative conclusion at the moment for two reasons. The measure of hours worked was a simple dichotomy - full or part time - and this should be reassessed with more information about the actual hours to hand. Secondly, since the measure of awkwardness of hours was self reported in response to a question "to what extent does your job involve shiftwork or awkward hours?", it may well be that it is not completely independent of satisfaction with hours; in other words the respondent who is dissatisfied with the hours he has to work may say he works a lot of awkward hours where another respondent working the same hours as he would respond differently. (This model is being further investigated by the Survey Unit at the University of London).

In both the examples that we have looked at as representative of type B, we have seen that objective conditions are being perceived independently, ranked easily in the case of journey to work and perhaps not so easily in the case of hours, and evaluated in the way we might have expected. Our original model worked well in the case of travel, but the total variance accounted for in the hours model was low, and although the direct transmittance from objective to subjective was the only substantial one, it was still not very high. We cannot say that we have sufficient knowledge of what makes people satisfied with the hours they work.

Social scientists should not be afraid of demonstrating rigorously something that "everybody knows". We have seen that respondents have evaluated the hours that they work and the distance of their journey to work in accordance with fairly "commonsense" predictions. If all the facets of a job which comprise the total picture of 'job satisfaction' operated in this manner, the task for those who wish to understand satisfaction at work would be relatively simple, and furthermore, once the picture had been fully established, research in the field of social indicators could be restricted to monitoring the objective conditions, subject to the proviso that the complete picture would have to be checked by means of this type of survey from time to time to check that it had not changed.

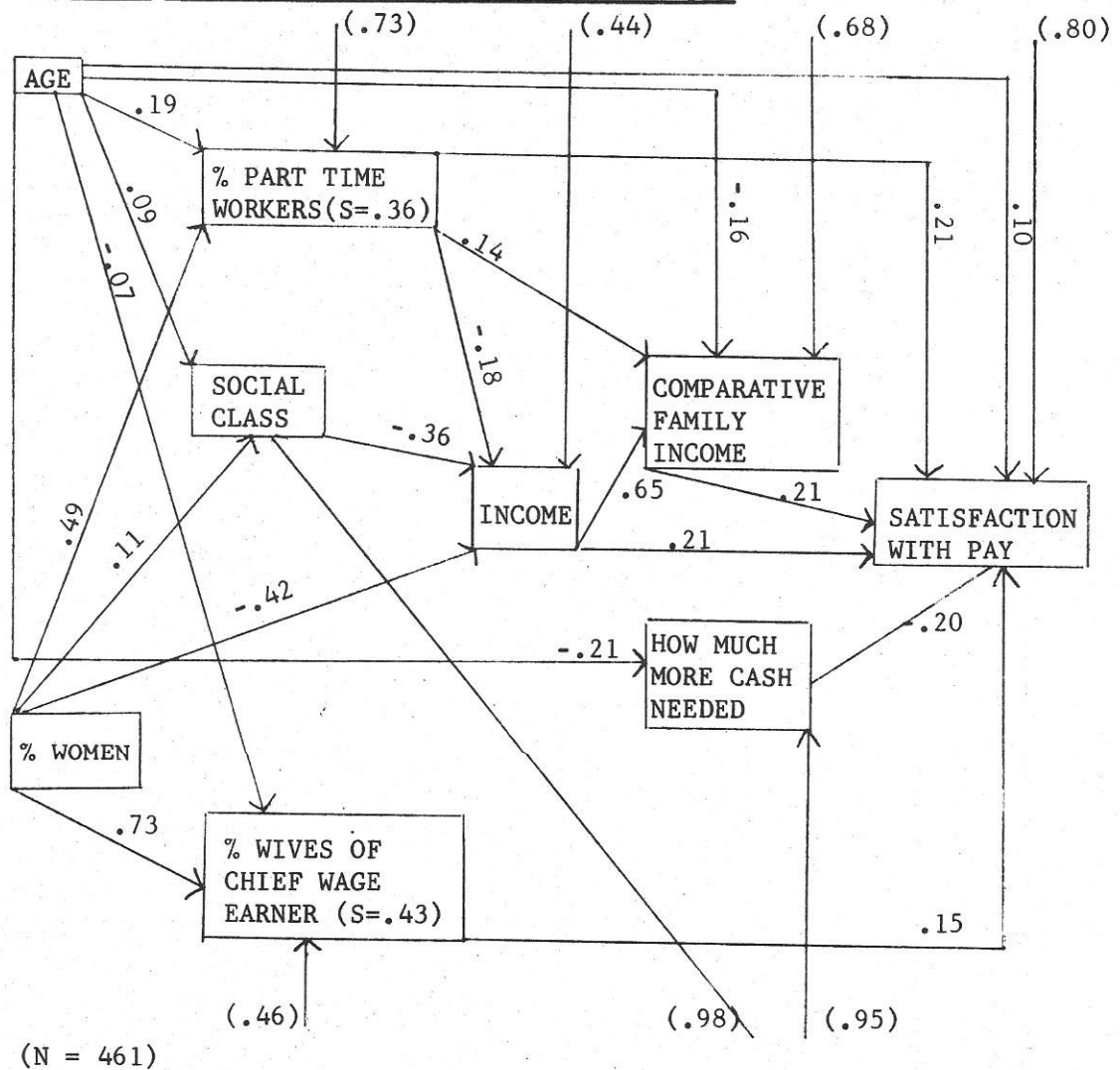
Type C. But there are objective conditions whose evaluation does not have such a clear cut "value-slope" inherent in it, as Charles Taylor would put it¹⁶. We know that people who travel a long way to work are not very happy with this situation, but they still do it; we may presume that this is because there is another factor overriding their dissatisfaction, perhaps a better job. There are, however, aspects of the employment situation where actual disagreements about the value-slope exist, and the adoption of one set of values actually undermines the adoption of another. We shall consider the process of evaluating how much one is paid as an example of this type of subdomain item.

The path model for satisfaction with pay is very much more complex than the models we have considered up to now, for there are many more significant contributory factors. Pay is considered to be the most important of all the facets of job that we asked people about;

perhaps its very importance leads to its complexity. With a dominant value system constantly stressing the fact that more pay was not necessarily a good thing - that it might be unjust, that it might lead to inflation, that it might even lead to over-materialism - we hypothesised that the direct effect of income on satisfaction with pay would be small and would be mediated through perceptual variables. Moreover, we thought it likely that there would be effects coming from one's position in the life cycle.

This path diagram sums up the relative direct and indirect effects on satisfaction with pay.

Figure 3 Path model for satisfaction with pay



J.S.Mill once asked a very good question: Is it better to be a pig contented or Socrates discontent? We may leave the answering of that question to the moral philosophers (indeed they are the only ones who would dare to claim that they could answer it) but we have to face the possibility that it might be the ignorant pigs who are scoring 9 and 10 on satisfaction with pay and the more knowledgeable Socrates who score lower. On the face of it, it would seem to be the case from this diagram. How well you think your family income compares with others, irrespective of the level of your own income, has as large a path coefficient to satisfaction with pay as income itself. Two people with the same income would answer differently to a question about satisfaction with pay depending on whether they thought their income was average or not.

So the first stage of the evaluative process, namely perception, appears to be an important contributory factor.

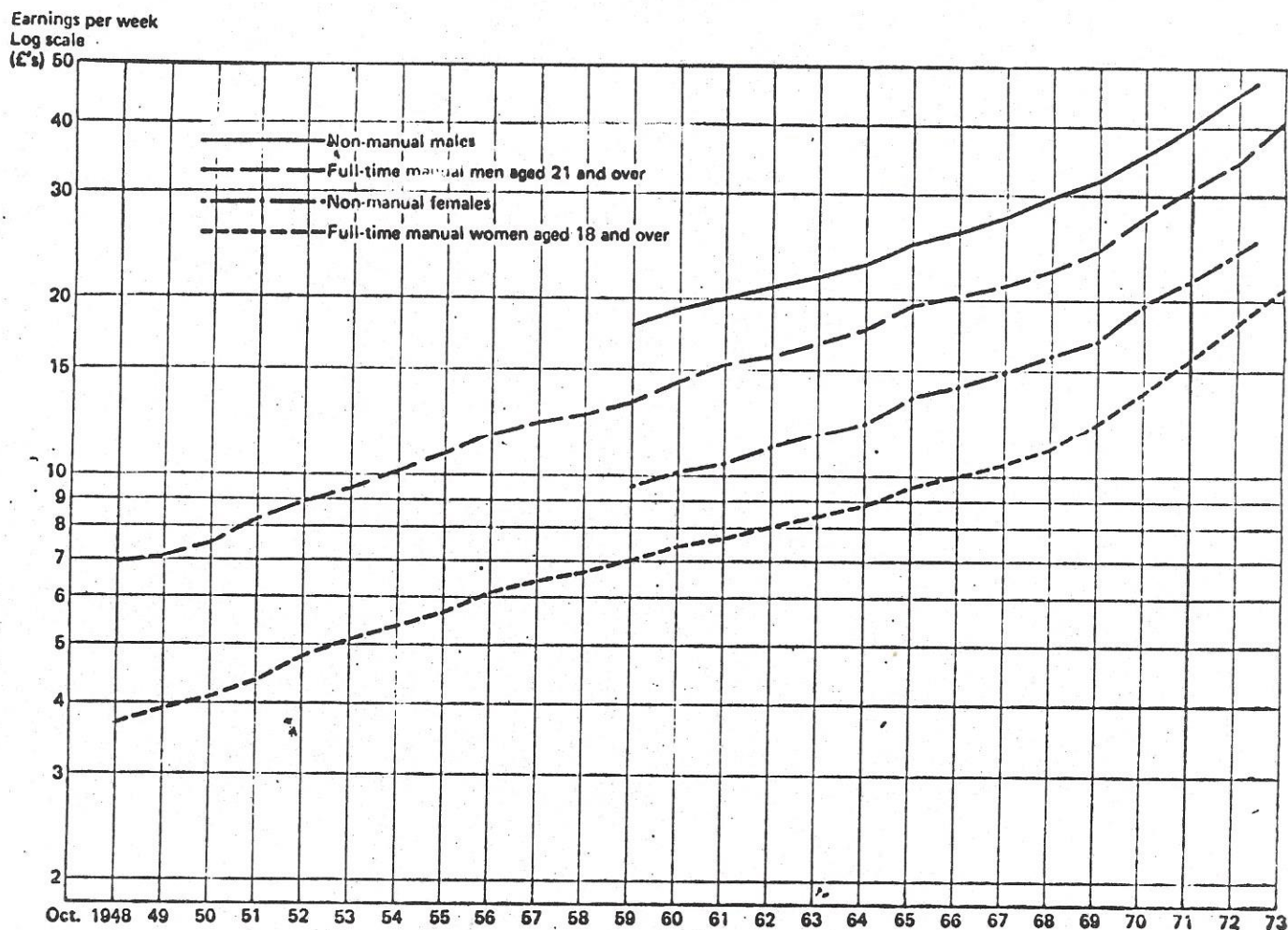
The second stage of ranking does not pose many difficulties with something as easily quantifiable as income - although it should be noted that although real income forms a ratio scale, we should be doubtful about asserting anything more than ordinality about perceived income.

The process of evaluation however is clearly quite complex. Income itself does have a direct effect on satisfaction in the "commonsense" direction - i.e. the more income the more satisfied. However, it is only one of the relevant effects, and we shall see that different people, at different stages in the life cycle, are evaluating pay in different ways. Women earn less and yet are more satisfied with their pay. However, contrary to popular belief (and the zero order correlation coefficient) it is not the sheer fact of being a woman that makes you more satisfied with your pay. But many women work part-time, and many women are not the only wage earner in the household, and this does have an effect. Part-time workers obviously receive less income than full-time workers, but they presumably feel that they have chosen to work part-time and this makes them satisfied with their pay. (The value on the arrow from % part-time to income is low because we are working in terms of changes in standard deviation units;

part-time workers are paid considerably less than full-time workers). But there is a possibility that the satisfaction of part-time workers stems from the fact that they are glad to have a job of any sort; many more women want part-time jobs while their children are at school than can find them. Similarly being the wife of a "chief wage earner" is an important contributory effect to satisfaction with one's pay, whereas being married alone is not. We know that households are relying on the wife's income as much as the husbands, in the sense that essential items of expenditure are coming from the wife's purse also, and yet the wife feels more satisfied with her pay than her husband does with his. This must point to the fact that there are different value systems operating here; the reality of the wife earning "pin money" has disappeared (if it ever really existed) but the ideology remains and affects the process of evaluation.

This is all the more important when we see how much worse paid women are than men, from the national figures presented below.

Figure 4 Earnings of employees in Britain



*Figures for non-manual males and non-manual females in 1971, 1972 and 1973 relate to April, not October.

However, the effect between sex and satisfaction through income is only $(-.42 \times .21)$, = $-.088$, whereas this is more than compensated for by the effects through being part-time or being the wife of a chief wage earner.

In fact we could turn this all on its head and say that it could only be through the maintenance of an ideology of "pin money" that women could continue to work for such bad pay. We shall come back to this at the end when we discuss the policy implications of this kind of research.

Another life-cycle effect which has a bearing on satisfaction is the actual age of the respondent (remember that this excludes retired people). The older you are the more satisfied you are with your pay and the less extra money you reckon you need "in order to live without money worries and in health and comfort". This could reflect a real age difference, for we know from our data that older people have acquired more consumer durables and have fewer young family members making demands on them. But it could also be a generation effect, stemming from the fact that a generation which can remember pre-war conditions of employment in Britain, and the low wage rates that were paid, has a much lower reference point than the products of the post-war "revolution of rising expectations". Further studies would be needed to establish which was more important.

But strangely enough age has a depressing direct effect on comparative family income. Irrespective of your actual income, the older you are the less favourably you will tend to compare your family income with the income of families in general in Britain. This in turn has a slight indirect effect tending to dampen satisfaction with pay. The explanation for this is found if we turn to Appendix 1 which repeats the pay path model using income of the household instead of personal income as a predictor. We discover that older people tend to live in households with lower total incomes (presumably there are fewer breadwinners in them) and the introduction of this fact has the effect of reducing the direct path from age to comparative income to an insignificant (albeit still negative) amount. So it is really nothing more than a sober appraisal of the objective fact of lower household income which makes older people compare their incomes unfavourably with others.

And yet age seems to be the only thing having any bearing on how much more money people want. The residual unexplained variance in this variable is still very high ($1 - R^2 = .95$) and there is no direct relationship with income. Not surprisingly, the more money you think you need the less satisfied you are with your pay, but the relationship is not very strong. It might be objected that to some extent the two questions measured the same thing, but given that their pattern of causation is so different I think we have to give the response to the "more money" question an independent status.

In that case we can see that satisfaction is partly made up by evaluating your pay in comparison with others and partly by evaluating it in comparison with an ideal of what you actually need. This latter idea should be very much more thoroughly investigated, as our present ability to explain it is inadequate.

Membership of a union could not be brought realistically into this model because of the interactions between it and other variables, especially income, class and sex. (The median income of junior white collar men, for example, is £10 lower if they are not in a union, whereas the median income of junior white collar women is £7 higher if they are not in a union. Among AB's there is no difference between unionised and non-unionised. And so on.) The mean satisfaction scores differ significantly (a z level of over 3.0) between unionised and non-unionised workers; this cannot be broken down in a path model partly because of these interactions with pay, but also because there is a definite loop here - being in a union is a cause of dissatisfaction with pay to some and an effect of it for others.

Conclusion

We have suggested that there may be items which cannot really be considered as facets of job satisfaction because they measure the same thing, and so we suggest that such items are dropped. We have shown that in some subdomains, there is good correspondence between objective conditions and subjective evaluations, that in some the correspondence is less good but it is still the only important factor and that in some subdomains the effect of different objective conditions is small and is only one of several factors influencing the process of evaluation. It is significant that pay, considered most

least well established.

What conclusions follow from all this? Once a clear and unambiguous link has been established between objective conditions and subjective evaluation such as we found with journey to work then researchers can concentrate on monitoring one or other of them alone, although as we have said they will need to check from time to time that the correspondence between the two still exists.

Attention must be turned to a fuller understanding of what we have called the "type C" items, the more interesting ones for social scientists since different value systems are coming into play.

It would seem as if the technology of social research has vastly outstripped the developments of constructs and the building of adequate theories of social behaviour. Once a theory has been formulated, testing it with these powerful tools is obviously desirable, but first formulate a reasonable theory with thought-out concepts. We have suggested from this study that satisfaction is partly a reflection of objective conditions, ranked and evaluated directly according to a commonly accepted set of values; it is a product of disparity between oneself and others; it is also a product of disparity between one's actual situation and the situation one feels one needs. Other writers have also suggested that it is disparity between one's actual situation and what one feels one deserves. Furthermore, we do not know whether the important factor in satisfaction is perception of the past or expectation in the future. All this must be thoroughly investigated in order to avoid the extremes of logical positivism and isolation from the real world by declaring that satisfaction is what our scales measure.

However, having said all that, there is a further important caveat to add. Subjective social indicators do not lead directly to any policy conclusions. We have already noted that part-time workers and wives of "chief wage earners" may be paid less because they are more satisfied with their pay and therefore not so prepared to unionise or fight to change it. This does not mean that women don't need as much money as men, or anything of the sort.

Alasdair Clayre¹⁷ in his book, Work and Play notes that many writers have been troubled by the problem of how to draw conclusions from the fact that men, working in conditions that the writer would dislike, look cheerful at their work or say they are satisfied. He quotes that most original of apologists for capitalism - Bernard Mandeville:

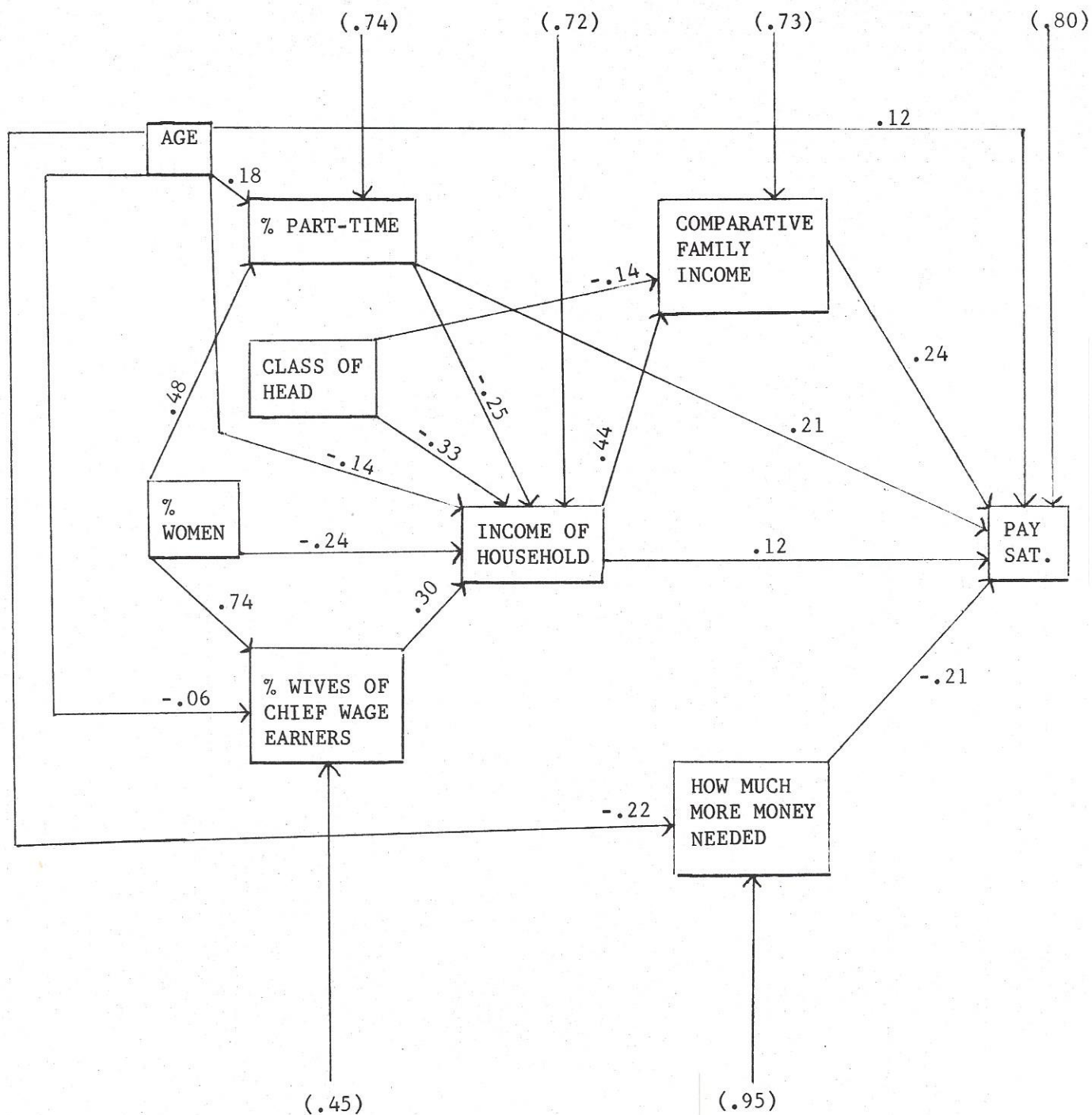
"It being granted ... abundance of Work is to be done, the next thing which I think to be likewise undeniable is, that the more cheerfully it is done, the better, as well for those that perform it as for the rest of the Society ... I would not advance anything that is Barbarous or Inhuman. But when a Man enjoys himself, Laughs and Sings, and in his Gesture and Behaviour shows me all the tokens of Content and Satisfaction, I pronounce him happy, and have nothing to do with his Wit or Capacity. I never enter into the Reasonableness of his mirth; at least I ought not to judge of it by my own Standard."

As an example of this point, Clayre later refers to a puzzled parliamentary commissioner in the 1840's who was inspecting a mine where women were working in particularly bad conditions, and yet were singing and joking gaily. But it is the puzzled reaction of the parliamentary commissioner which has survived through time. We know that these "happy" people have fought for over one hundred years to improve conditions in the mines, and although our present miners might score exactly the same on our satisfaction scales as their predecessors would have done over one hundred years ago, their expectations have changed, and present miners would certainly not be prepared to wind the clock back.

There is a grave danger in claiming anything more for subjective social indicators than any other aspect of social science. The aim is to understand what makes people evaluate things in the way that they do and ultimately what makes them behave in the way that they do. Policy makers can make up their own minds whether they want to change people or the objective conditions. Nothing in the subjective satisfaction ratings that we have been discussing will tell them what to do.

APPENDIX 1

PATH MODEL FOR SATISFACTION WITH PAY - INCLUDING HOUSEHOLD INCOME



(N = 461)

APPENDIX 2

The Satisfaction Scales as Applied in a Specific Work Place

The list of subdomain satisfaction items was used in a workplace where organisational inefficiency had been noticed; serious grievances of the workers with management were uncovered. The employees were white collar workers in a department which had recently been split off from the rest of that concern and relocated a considerable distance away, all according to strict principles of scientific management. The result was that individuals who had previously been given quite a lot of responsibility, who had often dealt with customers and who could feel that they were a useful part of a whole service found their jobs suddenly and severely circumscribed. In fact, many of them simply did not allow this change to take place and carried on as before.

Their responses to our questions are shown below, alongside the responses of the full-time white collar section of our national sample as a benchmark. This was a good test for these scales, to see if the scores would reflect the known dissatisfaction with the work situation, and, more particularly, whether the differences from the general population would show up on the appropriate subdomains.

It has been suggested that all the facets of the job satisfaction scales respond to changes in general affect or mood, more than they respond to real changes in evaluation, but this is not borne out by the results we found.

Table 1 - Mean scores on relevant items from job satisfaction list.

	<u>NATIONAL</u>	<u>DISPUTE</u>
Overall job satisfaction	8.3	6.0
Ability and efficiency of management	7.7	5.1
Using your own initiative	8.3	6.2
The actual work itself	8.4	6.4
Being able to do the things you do best	8.0	6.0
Relations with supervisor or manager	8.3	7.1
The pension scheme in your firm	6.2	7.1
Participating in management	6.1	5.2
Friendly and helpful people to work with	8.5	7.8
The job security	8.2	8.7
Promotion prospects	5.6	5.9
The holiday arrangements	8.3	8.4
The total pay	7.0	7.0

Appendix 2 - continued

As we expect from what we know of the work situation, questions which related to management produced markedly lower scores - there is a $2\frac{1}{2}$ step gap on the subject of the ability and efficiency of management. And, again not unexpectedly, those questions which ask about satisfaction scores for those aspects which relate to the actual nature of the work also show a massive drop. But the better than average objective conditions of those workers in dispute with regard to pensions and job security are still reflected in their satisfaction scores, as also are their fairly average conditions with regard to pay and holiday.

This would seem to indicate that the items in the subdomain list are indeed acting independently. The only really surprising finding is that the workers report markedly lower satisfaction with the friendliness of their workmates, which in this instance was certainly not the cause of the dispute. Waters and Roach found that forms of job withdrawal were significantly related to the co-worker factor in the JDI list as well. Previously it had been assumed that the relationship was:



However, since the cause of the particular piece of dissatisfied behaviour under consideration was the result of a remote managerial decision, it is tempting to speculate that the arrow should run in the opposite direction, from dissatisfied behaviour to dissatisfaction with co-workers; perhaps it is the tensions associated with a grievance situation which actually lower the level of satisfaction with "friendly and helpful people to work with."

Further opportunities to apply these scales in other work situations with known special features would be very useful, and would avoid the cumbersome method of collecting data about objective work conditions by means of a questionnaire.

APPENDIX 3

Mean Job Satisfaction Scores By Union, Class and Sex

	UNION				NON-UNION			
	MANUAL (men, Women)		NON-MANUAL (Men, Women)		MANUAL (Men, Women)		NON-MANUAL (Men, Women)	
Travel	7.83	8.89	8.42	8.34	8.08	8.56	7.74	7.72
Promotion	4.84	4.06	7.01	7.19	5.15	4.39	7.06	5.86 *C
Pay	6.32	7.56	6.85	6.73	7.18	7.66	6.96	7.56 *U *S
Surroundings	6.67	7.08	7.53	6.91	7.05	8.50	7.18	7.33
Superiors	7.76	8.14	8.45	8.00	7.90	9.25	8.28	8.43 *S
Job security	8.08	8.53	8.74	9.11	7.07	8.35	8.18	8.73 *C *S
Do best	7.67	8.19	7.89	8.42	7.71	8.24	8.16	8.14
Workmates	8.55	8.67	8.45	8.80	7.92	9.08	8.24	8.93 *S
Respect	7.24	7.67	7.34	7.96	7.08	7.87	7.56	7.52
Time given	7.97	8.80	7.36	7.70	7.72	8.40	7.82	8.28
Holidays	7.98	9.19	8.45	8.67	7.71	8.42	7.93	8.91 *S
Work itself	8.18	8.42	8.42	8.42	8.15	8.90	8.64	8.20
Pension	6.84	5.45	7.74	7.45	4.50	5.06	7.10	5.66 *U *C
Hours	7.47	9.19	8.17	8.42	7.72	8.58	7.84	8.51 *S
Participation	4.99	6.19	6.86	7.14	5.41	5.41	7.64	6.26 *C
Initiative	7.95	8.33	8.62	8.60	8.14	8.35	8.80	8.29
Reputation	8.16	9.11	8.34	8.29	8.07	8.77	8.73	8.43
Safety	7.90	7.83	8.09	8.42	7.23	8.31	8.03	8.25
Efficiency	6.98	8.11	7.38	8.00	7.12	8.67	7.89	7.82 *S
Equipment	7.75	8.33	8.06	7.69	7.04	8.57	8.04	8.52 *S

Overall	7.94	9.03	8.09	8.38	7.93	8.80	8.26	8.37 *S
	(122)	(36)	(53)	(45)	(85)	(84)	(90)	(70)

*U = Significant difference between union and non-union ($Z = > 3.0$)

*S = Significant difference between men and women ($Z = > 3.0$)

*C = Significant difference between manual and non-manual ($Z = > 3.0$)

APPENDIX 4

Age and terminal education age with satisfaction items
(product moment correlation coefficients)

	<u>AGE</u>		<u>TEA</u>	
	Men	Women	Men	Women
Convenience of travel to and from work	.129	.039	-.013	-.059
Promotion prospects	-.118	.050	.159	.143
Total pay, including overtime and bonuses	.038	.235	-.030	-.222
Physical surroundings	.134	.212	-.033	-.213
Relations with supervisor or manager	.099	.176	-.003	-.166
Job security	.125	.085	.088	.013
Being able to do things you do best	.066	.271	-.032	-.076
Friendly and helpful people to work with	.084	.129	-.068	-.070
Public respect for work you do	.204	.284	-.053	-.082
Time given to do the work	.087	.290	-.124	-.224
Holiday arrangements	.122	.135	.107	-.023
Actual work itself	.089	.178	.042	-.180
Pension scheme in your firm	.018	.003	.111	.093
The hours you work	.072	.182	.068	-.122
Participating on management	.041	.119	.163	-.011
Using your own initiative	.009	.271	.053	-.105
Reputation of your firm	.150	.190	-.016	-.151
Safety precautions, controls on health hazards	.181	.151	.039	-.036
Ability and efficiency of management	.166	.234	-.038	-.165
Provision of adequate equipment and materials	.220	.195	-.053	-.191
Overall satisfaction with job	.100	.276	-.055	-.179

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