

## Article

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# The Status and Job Satisfaction of Computer Operators

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*The results of this exploratory study suggest that computer operators experience a high level of inconsistency in their occupational status. Such inconsistency produces a differential impact upon the satisfaction of computer operators. When operators resolve the inconsistency by seeing their own status as low, they tend to be dissatisfied; when they see their own status as high, they tend to be satisfied.*

The social rank of a person in comparison with others in a social system is referred to as status. Status is either formal, that is, it refers to the rank of people as designated by a formal organization, or informal, that is, the social rank which others accord to a person because of their feelings towards him.

The desire for status is one of the strongest motivating forces among people at work. They sometimes will make a strong effort to achieve slightly more status. « The desire for improvement of status and especially the desire to protect status appears to be the basis of general responsibility » (Barnard, 1946).

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The underlying factors affecting one's status are many, because each situation is different. There are, however, several factors common to most work situations :

### *Organizational*

Organizational level	Working conditions
Competence in work	Pay
Type of work	Seniority

### *Occupational*

Prestige of occupation	Prestige of industry
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### *Personal*

Education	Ethnic background
Sex	Religion
Interpersonal skills	

The degree of agreement among various indicators of status of a person is referred to as « status congruence » or consistency. An employee who lacks status congruence is regarded with ambiguity and anxiety by those in his group. Usually he is not as well accepted because they do not know where to place him in their status system (Davis, 1967). Conversely, one's own perceived status inconsistency will create anxiety and dissatisfaction within oneself.

The purpose of this study was to determine the effect of own status perception upon one's job satisfaction for a group of computer operators. This specific occupational group was selected because of the prestige associated with the computer industry, and the relatively low level at which the computer operators are situated in the organizational hierarchy of a computer department. The effect of this assured status inconsistency could, therefore, be analysed.

The following hypotheses were tested :

1. People working outside the computer industry (« outsiders ») give the computer operator a higher status than people working within the industry (« insiders »).

2. The interaction between the computer operator and these two groups induces the former to perceive his own status as being higher than the status given by « insiders », but lower than the status given by « outsiders ».
3. The status inconsistency created by the different opinions of the two groups (« insiders » and « outsiders ») induces differences in own perceived status among the computer operators : therefore we may expect a positive correlation between own perceived status (a function of this inconsistency) and job satisfaction.

## RESEARCH METHOD

### *Research Site*

The study was conducted in the Systems and Computer Services Department (S&CS) of a leading oil company. The department has two geographic divisions with identical hierarchical structures ; one division is located in West (a city in Western Canada), the other in East (a city in Eastern Canada) <sup>1</sup>.

### *Collection of Data*

Questionnaires were distributed to all S&CS employees, Supervisors, Programmers, Analyses Computer Operator and Computer Clerks working at the two locations. 70.5% of the questionnaires were returned, giving 141 usable questionnaires. The focus is upon the group of computer operators (all male) and clerks <sup>2</sup> at these locations. These questionnaires consisted of two parts. In the first part the respondents were asked to rate ten occupations in order of status. Nine of these occupations are situated approximately ten levels a part from each other in a standard status scale of 90 occupations (Hodge, et. al., 1964). The tenth occupation to be rated was of « computer operator ».

The second part of the questionnaire distributed consisted of the Job Descriptive Inventory (Smith, Kendall, & Hulin, 1969). This measures satisfaction with work, pay, promotion opportunities, fellow workers, and

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<sup>1</sup> The names of the cities have been disguised.

<sup>2</sup> The stimulus in the status questionnaire was the role of « computer operator ». However in the analyses the clerical group's data was combined with that of the computer operators as

- a) they did similar work
- b) they did not differ in self reported status or job satisfaction.

supervision as well as total satisfaction. It has been shown to have convergent and discriminant validity (Smith et. al., 1969 ; Evans, 1969). The respondents were also asked to indicate their occupation, and whether they valued the opinions of people within the company or outside the company regarding their own status.

Questionnaires dealing only with status were also distributed to 50 « outsiders », that is, people working outside the computer industry. Since men and women differ very little in rating status of occupations, no attempt was made to differentiate their responses (Taylor, 1968). However, past studies have determined that own occupational status does affect one's ratings : people tend to assign a lower status to occupations more prestigious than theirs, and a higher status to occupations less prestigious than theirs (Taylor, 1968). Hence, « outsiders » were selected from two groups : one group of 25 having a status above 5 on the 10 level scale, the other group of 25 having a status below 5 on the same scale. The rank of 5 was chosen as an *a priori* estimate of the final status rank given by « outsiders » to the computer operator.

TABLE 1 — STATUS ASSIGNED TO COMPUTER OPERATORS  
BY A VARIETY OF GROUPS

Group	N	Status Assigned to Computer Operators	
		M	S.D.
Outsiders	50	4.54	0.54
<i>Computer Operators and Clerks</i>			
East	11	6.18	1.54
West	24	4.79	0.88
<i>Other S&amp;CS Employees</i>			
East	55	5.81	1.23
West	65	5.29	1.12
<i>Computer Operators</i>			
West — all	16	4.81	0.75
Insiders Value	10	4.60	0.84
Outsiders Value	6	5.17	0.41
East — all	5	6.60	1.34
Insiders Value	5	6.60	1.34
Outsiders Value	0	--	--

NOTE : High status received a low numerical value.

## RESULTS

The results of differences between the status assigned by the various groups are given in Table 1. T-tests were carried out to test the significance of the differences between the means. An examination of these differences indicates :

1. That people working outside the computer industry (« outsiders ») give the computer operator a higher status than that given by people working within the industry. Thus the first hypothesis is supported.
2. That « insiders » in East gave the computer operator a lower status than the status given by the « insiders » in West (5.81 vs. 5.29). Own perceived status of computer operators in East is lower than own perceived status of computer operators working in West (6.60 vs. 4.81).
3. In West, the own perceived status of Computer Operators and Clerks lies between that assigned by insiders and outsiders ; however, in East own perceived status is even lower than that assigned by insiders. Thus, hypothesis 2 only gains partial support.
4. In analysing the influence upon the computer operators of status assignment by « outsiders » an attempt was made to segregate the computer operators into two groups : those who indicated that they value « outsiders » opinion regarding own status, and those who indicated that they value « insiders » opinion regarding own status. The two groups of computer operators thus obtained from West did not have significantly different perceived status. In East all computer operators indicated that they value « insiders » opinion regarding their status.
5. Table 2 presents the correlations between own perceived status and job satisfaction. The results indicate that a very weak relation between status and satisfaction with pay and promotion opportunity exists in the West office, a strong relationship between status and satisfaction exists at the East office. These differences are probably accounted for by the fact that the computer operators working in West are significantly more satisfied than their East counterparts (175.8 vs. 132.6). It seems probable that at a relatively low job satisfaction level (as is the case with the East group) own perceived status is quite relevant to the total job satisfaction level. In fact, 51% of the variation in total job satisfaction of the East group is explained

TABLE 2 — CORRELATION BETWEEN OWN PERCEIVED STATUS  
AND JOB SATISFACTION

*Satisfaction With :*

	<i>Work on Present Job</i>	<i>Present Pay</i>	<i>Opportunities for Promotion</i>	<i>Supervision on Present Job</i>	<i>People on Present Job</i>	<i>Total Satisfaction</i>
Status assigned to the computer operator by computer operators and computer clerks in East (n=11)	0.39	-0.43	-0.56*	-0.22	-0.73**	-0.72**
Status assigned to the computer operator by computer operators and computer clerks in West (n=24)	-0.10	-0.37*	-0.26*	0.22	0.07	-0.21

\*\* Significant at the 0.05 confidence level

\* Significant at the 0.10 confidence level

NOTE: As high status is given a low numerical value, a negative correlation coefficient implies that the higher the status, the higher the satisfaction.

by the relationship with own perceived status. For relatively higher job satisfaction levels (as is the case with the West group), own perceived status is uncorrelated with the total job satisfaction level. Thus an amendment of Hypothesis 3 was supported by this data — under conditions of low satisfaction and low status there is a positive relationship between status and satisfaction ; however when satisfaction and status are high, these variables are not related.

## CONCLUSIONS

The results of this study suggest that the role of the Computer Operator occupies an ambiguous position in the status hierarchy of occupations. People within the industry see it as a rather low status job, for these outside the industry, the glamour of the computer firm puts a halo upon the operator's status.

It appears that there is some relationship, at least under conditions of low status, between status and job satisfaction. However, this result must be interpreted with caution as no attempt was made to control any of the organizational antecedents of status apart from job level ; so that the correlation found at West might have been an artifact of such factors as pay, working conditions, or seniority which might correlate with both status and job satisfaction. It is the task of further research to investigate these possibilities.

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## **Le statut professionnel et la satisfaction au travail des opérateurs d'ordinateurs**

Le but de la présente recherche visait à vérifier, parmi un groupe d'opérateurs d'ordinateurs, comment l'image qu'ils se faisaient de leur propre statut professionnel réagissait sur le degré de leur propre satisfaction au travail. On a choisi cette entité professionnelle spécifique à cause du prestige dont est entourée l'utilisation de machines à calculer électroniques et de l'échelon relativement bas où se trouvent placés les préposés aux ordinateurs dans la hiérarchie des fonctions à l'intérieur d'un service d'ordinateurs.

Il devenait, en conséquence, possible d'analyser les contradictions attachées à ce statut précis, ce qui a permis la vérification des hypothèses suivantes :

1. Les personnes étrangères au service des ordinateurs se font de l'opérateur une image plus reluisante que ceux qui travaillent dans ce domaine.
2. L'interaction entre ces deux groupes porte celui-ci à situer son propre statut professionnel à un niveau plus élevé que celui que lui accorde le personnel du service, mais sous le niveau qui lui est donné par les gens de l'extérieur.
3. La contradiction créée par les opinions divergentes des deux groupes (les gens de l'intérieur et les étrangers) a pour conséquence que les opérateurs ne se font pas tous la même idée de la valeur de leur statut professionnel. En conséquence, on peut s'attendre à une corrélation affirmative (fonction de cette contradiction) entre la façon dont l'opérateur perçoit son statut professionnel et son degré de satisfaction au travail.

Les constatations de cette enquête permettent de conclure que le préposé aux ordinateurs occupe une position ambiguë dans la hiérarchie des fonctions en tant que son statut professionnel est concerné. Les gens de l'intérieur considèrent que cette fonction occupe un rang plutôt inférieur dans la hiérarchie des emplois, tandis que, pour les étrangers, la fascination d'avoir à travailler avec ces machines à calculer place un halo autour du statut professionnel de l'opérateur.

Il semble qu'il y ait un certain rapport, du moins lorsque le statut professionnel est bas, entre ce statut et la satisfaction au travail. Il faut cependant en interpréter le résultat avec circonspection, étant donné qu'aucune tentative n'a été faite pour contrôler l'un quelconque des antécédents se rapportant au statut professionnel, à l'exception du niveau de l'emploi dans la hiérarchie des fonctions. Aussi, la corrélation que l'on a trouvée dans l'une des deux entreprises où les recherches se sont faites peut bien n'être que l'influence d'autres facteurs comme le salaire, les conditions de travail ou l'ancienneté qui peuvent influencer tant sur le statut professionnel que la satisfaction au travail.