



UNIVERSITY
OF NATAL
CASS
DURBAN

**IMAGES OF INDUSTRIAL WORK AND
THE PROSPECTS FOR PERSONAL
ADVANCEMENT AMONG AFRICAN
FACTORY WORKERS IN DURBAN**

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CENTRE FOR APPLIED SOCIAL SCIENCES
SENTRUM VIR TOEGEPASTE MAATSKAPLIKE WETENSKAPPE

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C.A.S.S. Images of Industrial Work and the Prospects for Personal
Advancement among African Factory Workers in Durban

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In any kind of creative work the creating person unites himself with his material, which represents the world outside of himself. Whether a carpenter makes a table, or a goldsmith a piece of jewellery, whether the peasant grows his corn or the painter paints a picture, in all types of creative work the worker and his object become one, man unites himself with the world in the process of creation. This, however, holds true only for productive work, for work in which I plan, produce, see the result of my work. In the modern work process of a clerk, the worker on the endless belt, little is left of this uniting quality of work. The worker becomes an appendix to the machine or to the bureaucratic organization.

Fromm, 1957

Should we, then, set ourselves the long term goal of re-designing work in directions which lead toward self-actualization for everyone? There are arguments which must caution us in this apparently admirable aim. Those whose life experience and cultural values have created neither the expectation of, nor the aspiration for, self-actualization may prove remarkably resistant to this treatment, as may also those whose authoritarian personality structure disposes them to prefer a situation of dependence on, and domination by, others.

Fox, 1971

One of the major changes that Africans undergo in their acculturation to Western ways of life is their gradual absorption into a work economy. A number of social needs which played no part in traditional work activities have become associated with work behaviour in our own industrial society; and new needs, in particular needs concerning the self, have arisen which again tend to find their fulfilment through the medium of work.

Biesheuvel, 1962

PREFACE

The investigation described in this report forms part of a broader programme of research into the problems of black advancement in South African commerce and industry currently being conducted by the Centre for Applied Social Sciences. As a result of economic pressures, foreign influence upon multinational companies and changes in the political culture in South Africa, opportunities have increased in recent years for blacks to move into positions of greater authority and responsibility in occupational organisations. To some degree all parties to this process of change have been caught unprepared by the pace of events. Even where black advancement has been accepted in principle, white employers have tended not to fully trust the judgement of newly-advanced black staff. Black employees have found themselves projected into unaccustomed challenge and stress, doubts over conflicting value commitments, and unsupportive or hostile social relations in the workplace. And in organization terms the development of structures and procedures to accommodate contrasting types of individual ability, outlook and manner has not been anticipated. Under these conditions occupational black advancement, even where actively promoted, has been neither as forthcoming nor as effective as might have been expected.

These problems are not superficial. They are rooted in a history of differential racial access to the education, skills, values, motivational orientations, resources, power, efficacy and emancipation typical of a modern industrial society. Early indications of our work suggest three major areas of remedial activity:

- Attitude change — in particular, attempts to move away from uninformed, prejudiced and conflict orientations, towards more informed, rational and pragmatic orientations. This would benefit all parties. But whites especially, who hold determining roles in most situations, need to be made more aware of the long-term human, economic, and security imperatives for social reform involving black advancement.

(ii)

- Improvement of work abilities — such as literacy, technical skills, industrial aptitude, linguistic ability, and independent decision-making ability — and corresponding development of the institutions of education and training which confer the bulk of these abilities. Problems in this regard affect blacks principally.
- Multiracial organization development — including communication therapies and the improvement, at all levels, of social and organizational skills relevant to effective and satisfying work. This task awaits both blacks and whites.

For these types of initiative to proceed effectively, however, an accurate picture of present circumstances needs to be built up. This is one function of our present programme of research. If intervention strategies are to be properly conceived, designed, executed and evaluated, they will have to depend on reliable data.

While other aspects of our research are currently examining the situation of blacks who are advancing at junior executive and administrative level, the study reported here concentrates on the scope for black advancement in semi-skilled and technical work. Problems differ at the two levels. In many cases black advancement is more of a *fait accompli* than a hurdle at white-collar level. It is its authenticity that is uncertain. The problems here tend not to be those of formal eligibility for a situation of advancement, but problems of relatively informal process within that established situation. Individual abilities of advancing blacks do not appear to be in doubt; rather, the manner and context in which they are being deployed. These issues are examined in a forthcoming companion report. By contrast, questions of ability and aptitude tend to be more dominant problem areas at blue-collar level, limiting access to a relatively unattained state of advancement.

A major indication of this study, focussed on blue-collar workers, is that aspects of social process in society at large are deeply affecting the eligibility of individual blacks for advancement in

the world of industrial work, and their disposition to master or sustain advancement. Participation in different socialising institutions of society confers upon individuals contrasting characteristics which may equip them or handicap them for performance in modern work. Two key factors in the socialising processes relevant here are the tremendous influences of education and of participation in an urban way of life and economy. Equally significantly, both of these are particularly contentious areas of inequality in South African society today. To some degree, then, black advancement in work is being constrained not only directly by present conditions in the employment market, but also, and arguably more profoundly, by longstanding characteristics of the whole fabric of society. The importance of these formative influences and the urgency of the issues they raise in broader socio-political terms, while not the immediate domain of this investigation, cannot be underestimated.

Roger Allen
Centre for Applied Social Sciences

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Roger Allen

SYNOPSIS

A sample of African industrial workers in Durban, including migrant workers, were studied in depth to determine their views of work in white-controlled industrial-technological settings.

Using psychologically sensitive techniques the investigation gained a detailed picture of their reactions to industrial work under these conditions. *Inter alia*, it was established that the enthusiasm with which different forms of industrial work are regarded varies considerably among the men studied.

Certain attitudinal and biographical factors describing the workers, suggested as possible determinants of outlook, were found to be related to the degree of enthusiasm with which the respondents approach industrial work. In particular, on upbringing in backgrounds of higher socio-economic status, more autonomous personality traits, an achievement orientation, and faith in the likelihood of social change of a de-restricting nature, were found to relate to positive views of industrial work and of self-potential for advancement in such work.

Further research is recommended to investigate the consequent effects, in migrant or transitional populations, of enthusiasm, confidence, or self-esteem upon measured performance and progress in challenging industrial work settings.

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CHAPTER 1.INTRODUCTION.1.1 MEANINGS OF INDUSTRIAL WORK.

How do African migrant and "transitional" workers in industry — many of whom may be encountering industrial employment for the first time — view industrial work? With what emotions and associated ideas do they encounter various forms of industrial work? What are the images and stereotypes of industrial work held by such workers, which may be colouring their views of work, determining their approach to such work, and constraining their involvement with it?

Are there aspects of industrial work and the world associated with it which, for migrants and transitional African workers, constitute significant emotional or conceptual barriers to a free involvement with, and commitment to, the work?

In particular, in a period of increasing attempts to facilitate "Black Advancement" in industry, how do black industrial workers honestly feel about their own ability to adequately perform new forms of work, in situations which may be novel, alien, and challenging?

More particularly still, what sorts of individual motives or personality characteristics subjectively encourage confidence in engaging with industrial work under these circumstances, and what sorts of doubts or anxieties undermine confidence or compromise the expression of technical skills — and industrial commitment in general?

These are some of the areas of concern which the investigation here described seeks to address.* As part of a wider study of the role of social and attitudinal factors in the advancement

* See also Figure 25, p. 70.

of black workers in industry, the study reported here investigates the views of industrial work of a group of African factory workers in Durban, together with some of the factors influencing those views.

The primary interests of the investigation have been to establish not only the workers' typical perceptions of, and opinions of, various specific types of industrial work, but also an understanding of what they would consider to be the prospects for their own progress in these forms of work.

The method of assessment of their own estimated prospects for progress takes into account both the workers' perception of objective opportunity in the world of work, and their subjective confidence and related feelings in approaching the challenge.

With this interest in the "psychology of advancement" the study has inevitably also become concerned with aspects of the workers' outlook which bear upon the factor of "optimism." Given the contemporary predicament of many industrially-employed blacks in South Africa, a very large component of "advancement aptitude" — apart from technical skills and diligence — must be that combination of confidence (self-esteem), conviction (locus of control) and determination or motivation (achievement orientation) necessary to undertake novel and challenging tasks and roles for which there is no real precedent or prior experience — roles which have to be undertaken, moreover, in a situation where there is not likely to be a supportive or familiar atmosphere.

Assuming that relatively meaningful patterns or stereotypes could be discerned in the respondents' views of work, a secondary interest of the investigation has been to establish which sorts of attitudinal or personality factors might be influencing the character of those patterns or stereotypes, or influencing perceptions of the prospects for advancement. In other words, the study also aims to reveal whether certain individual or social

attributes of a more general nature might to some extent account for the individual's enthusiasm or confidence in appraising a certain type of work, and in assessing his possible future in the work.

1.2 PROFILE OF THE SAMPLE STUDIED, AND FIELDWORK PROCEDURE.

The sample of persons examined in the study is drawn essentially from manufacturing industries in the Maydon Wharf/Maydon Road area of Durban. To qualify for inclusion in the sample, respondents had to be African males employed in "blue-collar" skilled and semi-skilled jobs, or in lower-level administrative or "white-collar" jobs, in large firms.* Respondents also had to be married, to have worked with their employer for at least one year, to be proficient in the use of English, and to be sufficiently literate to understand and complete a fairly complex questionnaire. In practice, almost nobody with an education below Standard VI level was sampled. Working in the great majority of cases within these criteria, our interviewer selected respondents randomly by requesting interviews on the street from black employees emerging from factories at "knocking-off" time and during lunch-hours.

Once agreement was secured in principle, a time was agreed with prospective respondents for an interview in a more formal setting. For this purpose a church hall was used, where a number of respondents could, under the careful supervision of the interviewer, simultaneously complete our questionnaire. Every effort was made to put the members of respondent-groups at their ease, to make them acquainted with each other, and to assure them of the confidentiality of the study. Under these circumstances, the church hall proved to be a convenient and reasonably "neutral" setting. To help ease some of the practical problems imposed by a lengthy interview, respondents were offered refreshments, lifts from their places of work and to their

* In many cases Multinationals.

commuter trains or buses, and a token "train or bus fare" of two Rands.

In spite of our careful training of our interviewer, we are well aware that the "randomness" of our sampling method is by no means perfect. Under the circumstances, however, we consider the method a satisfactory and adequate compromise in view of:

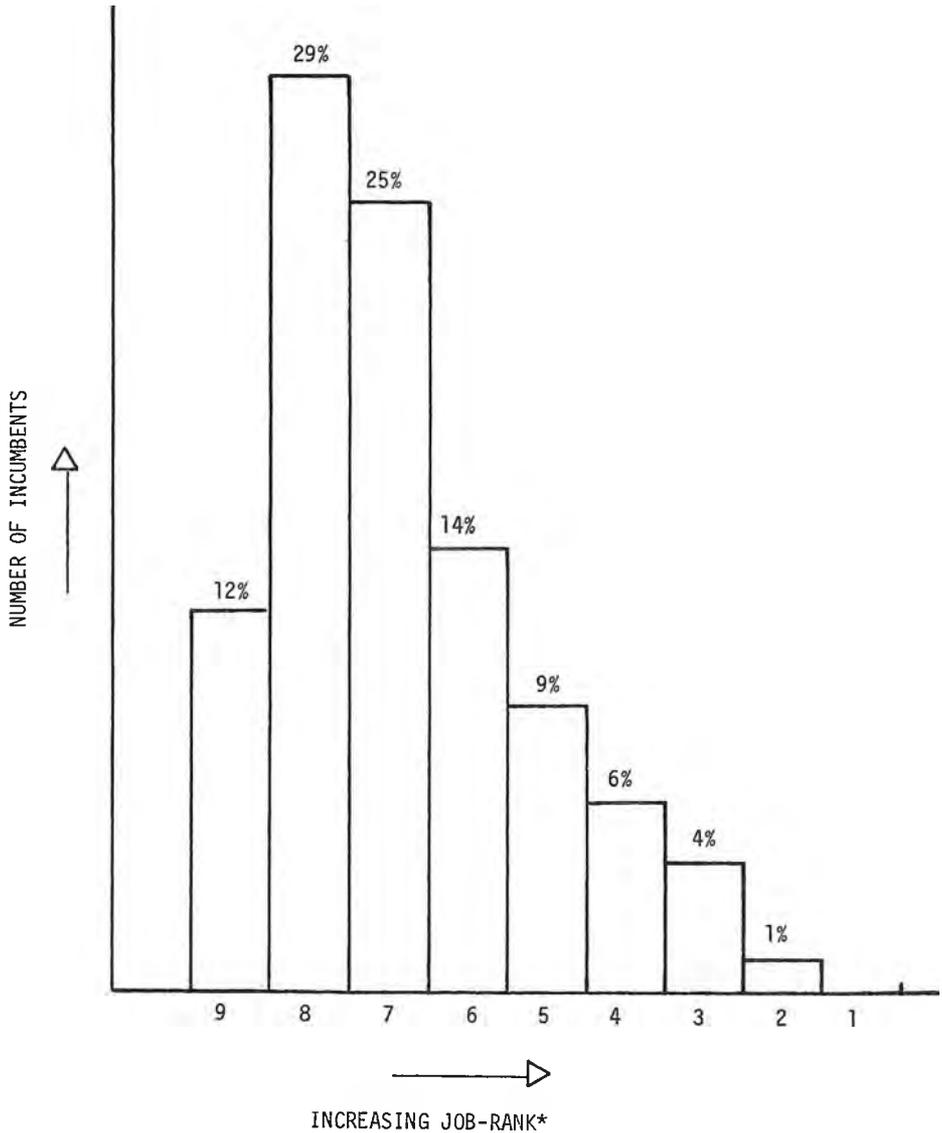
- a. the great practical difficulty of formally sampling *within* the premises of a firm and hence under the auspices of its management;
- b. the fact that this investigation is, inter alia, a pilot study for a further and more elaborate investigation, and any findings it yields will, if assessed with the proper reservations, prove valuable;
- c. the fact that any bias introduced by this method would probably favour the selection of more confident persons — in whom the study has a particular interest —, or the selection of better educated persons, who irrespective of current job-rank would be more likely to become candidates for advancement.

In the event, moreover, we are also very encouraged by one particular indication of the degree to which the sample is representative — namely, the distribution of job-ranks in the sample. This distribution is depicted in Figure 1 (q.v.), and clearly resembles very much the expected distribution of jobs in manufacturing industry at large. As would be expected, the frequency of each job-rank tends to be inversely proportional to its seniority, with the largest category being that of the semi-skilled manual workers, and the smallest categories being those of the executive and professional jobs. This gives us reason to believe that we have been fortunate in avoiding any great imbalance in our sample.

Other characteristics of the men in the sample, and their backgrounds, are as follows.

FIGURE 1.

FREQUENCY DISTRIBUTION OF JOB-STRATA
IN FULL SAMPLE.



* See Table 1., p. 6.

TABLE 1.

CATEGORIES USED
IN CLASSIFICATION OF JOBS:
ABBREVIATED DESCRIPTIONS.*

1. Senior Executive/Administrative
2. Professional
3. Administrative/Junior Executive
4. Senior Clerical/Salesman
5. Office Clerical
6. Foreman/Shopfloor Clerical
7. Artisan
8. Semi-skilled
9. Unskilled/Married

* Based on a more detailed classification, derived from Schlemmer and Stopforth (1979), and N.D.M.F. classification (c.1972).

In terms of ethnic origin and mother tongue, around ninety percent of the men in the sample describe themselves as Zulu, while most of the remainder are Transkeians.

About one-third of the men were educated in wholly rural areas, 20 percent in the vicinity of small towns, 28 percent in the vicinity of cities, and a further 17 percent in schools actually within central city areas. Levels of education in the sample vary from Standard VI at secondary school through to university graduate. Eighty-eight percent have an education up to at least Standard VIII or more, and of these 25 percent have at least a matriculation or higher qualification. About 15 percent have studied at a university, and 5 percent have completed a university degree. The great bulk of the sample — almost three-quarters — have education falling within the range Standard VIII to matriculation.

Further clues about the background of the respondents are offered by an estimation of what we have termed their "home prosperity" during childhood, and their residential status *vis-a-vis* migration. To take the first variable, the men rated the economic status of their parental homes as follows:

14%	very poor
30%	poor
45%	just enough of basic needs
<u>10%</u>	always enough of everything
100%	

Almost half of our sample, therefore, appear to come from economically deprived or disadvantaged backgrounds, and this is probably a conservative estimate. In the case of residential status, the men, using categories supplied and carefully explained by us, classified themselves as follows:

38%	urban resident
50%	immigrant
<u>12%</u>	migrant
100%	

An "urban resident" refers to a person permanently living in a city, town, or urban township, and also born and brought up in such an environment. "Immigrant" describes a person who now lives permanently in an urban environment with his family, but who was born and brought up in a rural area, and who has since moved into an urban area. A "migrant" is a person who is only temporarily residing in an urban area by virtue of being, in fact, an oscillating migrant. Such a person's family live permanently in a rural area, where he visits them or lives with them for a significant period of time each year. Thus, an urban resident has no real link with any rural area; an immigrant has a historical but now defunct link with a rural area of origin; and a migrant has a strong ongoing link with a rural home area. As each type of "residential status" corresponds roughly to a certain life-style, outlook and framework of identity, there appears to be in our sample a fairly good representation of a broad range of interests and values.

A very crude and tentative indication of the orientation of the men with respect to "traditional" versus "modern" socio-cultural values is perhaps given by their responses to one of a number of projective devices used in our study. In a six-picture thematic apperception test administered with a written response format, two-thirds of the respondents wrote, in the absence of any specific instructions, their stories in Zulu (the others chose to write in English); and about one-third of the respondents gave, in the absence of any specific instructions, exclusively African names to the characters in their stories (the remainder tended to use European or other non-African names). It should be stressed that only the most provisional of inferences can be made from these facts; and if anything, the use of English language and non-African names in story-telling probably tells us more about the "modernity" of respondents than the use of Zulu and African names would tell us about their "traditionalism."

FIGURE 2.

FREQUENCY DISTRIBUTION OF AGES
IN FULL SAMPLE.

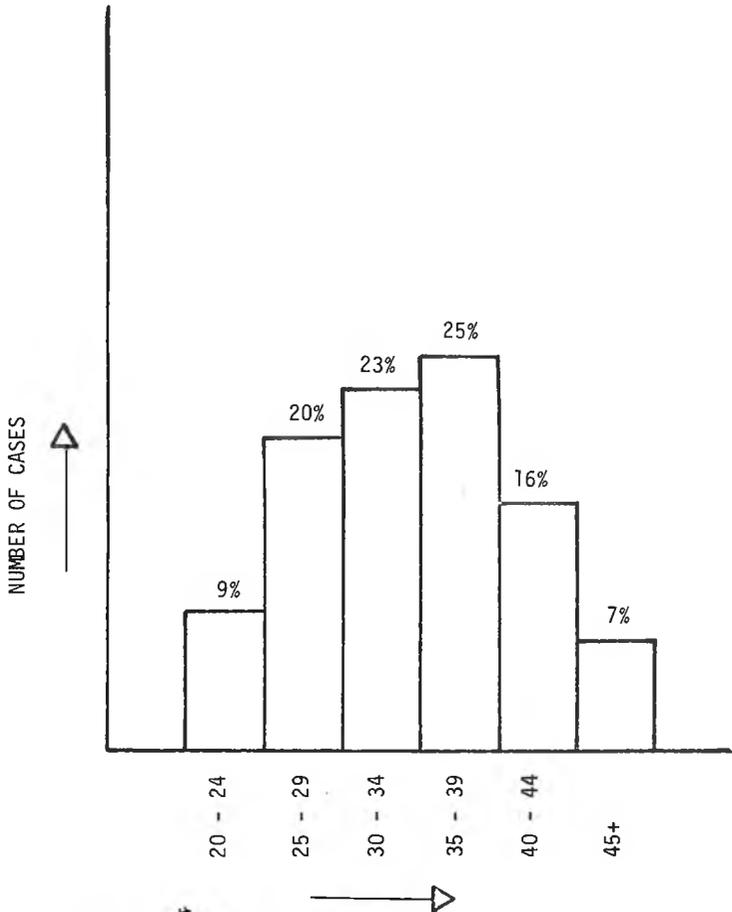
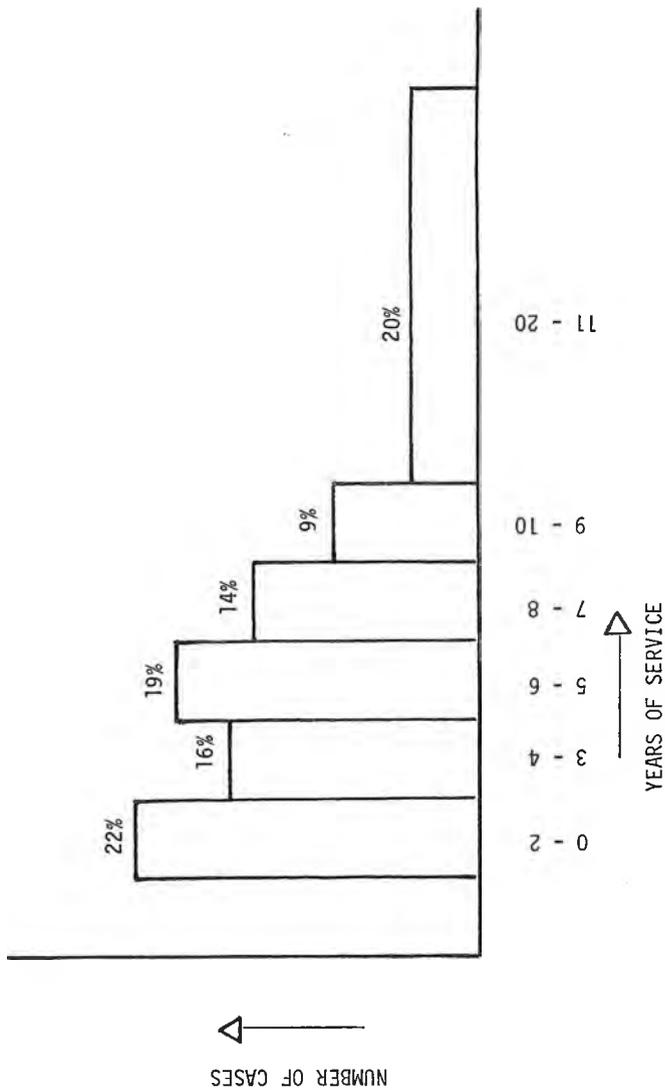


FIGURE 3.

FREQUENCY DISTRIBUTION OF DURATIONS OF SERVICE
IN FULL SAMPLE.



Finally, the ages of the men in the sample range from the early twenties to about fifty years in a fairly normal distribution curve, as depicted in Figure 2; while the period that they have worked with their present employer ranges from about one year to ten years or more with a fairly uniform tendency toward a slight preponderance of short-service men, as shown in Figure 3.

1.3 RESEARCH METHOD.

The study is essentially a statistical survey of the men described in the sample, based on a standardized questionnaire designed to recover information on the respondents' demographic characteristics, formative background, qualifications, work, and views and opinions of work. Using specially adapted psychological instruments the survey also attempts sensitive measurement of attitudes of a more general nature and of relatively unconscious aspects of personality deemed relevant to work performance. In use, the questionnaire takes on some of the characteristics of an interview schedule, because although respondents write on it themselves this process is administered by a trained interviewer presiding personally over small groups of respondents in what resembles an informal classroom situation.

Computer facilities are used to store, analyse, and compare a large number of detailed recovered variables describing the men.

Much as we would have liked it, participant observation of the working men in the sample was not practicably possible at the stage here reported.

A central aspect of our method in the study has been the use of pictorial stimuli to evoke the respondents' immediate perceptions of, and reactions to, the world of work and employment — in particular, their responses to what was considered to be a number of archetypal features of employment in large-scale industrial work involving the operation of heavy or precision technology.

In the initial stage of this technique a selection of photographs of industrial work scenes were shown to the respondents, who replied to a number of standardized but open-ended questions applied to each picture. The pictures clearly show a person at work in each situation, and it is assumed that the respondents unconsciously identify to some degree with the depicted workers in making their response. (The nature of the responses recovered confirm this assumption.)

This projective aspect of the method improves the likelihood of the respondents giving an authentic response, in an un-selfconscious manner. However, our primary reason for employing pictorial stimuli has here been to overcome the difficulty, particularly in cross-cultural research, of describing verbally to a respondent a detailed *hypothetical* situation (in this case a total work-situation) without thereby imposing a point of view, rather than to reveal deep-seated unconscious processes in the individual.

In order to make almost any sort of response possible the questions used in conjunction with the pictures are phrased in such a way as to be as non-directive as possible. However, the content of the pictures has been carefully chosen with the intention of suggesting at least some specific themes. These themes have the following in common:

- They are, as noted above, typical of industrial work.
- They would tend to stand out as novel to persons of rural and traditional background.
- They are characteristics of work which, previous research tentatively suggests, tend to provoke particular anxiety in African migrant workers.

Accordingly, some of the themes suggested, in our opinion, by the depicted work scenes are: effort, stress, danger, unusual or alien environments, contamination, isolation, concentration, uncertainty, and precision, to name a few. The pictures were deliberately prepared by us with these types of theme in mind.

Other possible themes will be mentioned shortly.

Of course, whether these themes, which are significant to us, would be apparent or significant for the respondents is not certain, but the main advantage of the pictorial technique is precisely that it permits each respondent to freely assign his own meanings to the situation, because that situation is not defined verbally.

From these details it will be appreciated that the technique and procedure resemble, with certain significant reservations, those used in a thematic apperception test.

Four photographs of work-scenes, approximately representing four types or levels of modern work, were used in the experimental procedure. These photographs are reproduced in Appendix A of this report (q.v.).

Although the projective purpose of the pictures meant that they could not in any way be named or described to the respondents, for present purposes and for ease of reference in reporting, they are *now* given brief names,* which are set out below together with the numbers used to identify them in the questionnaire:

Picture B5:	"Minework"
Picture C1:	"Refinery Worker"
Picture D4:	"Machine Operator"
Picture BC1:	"Telephone Linesman"

The picture of "minework" was intended to be in some degree suggestive of a theme of uncomfortable, arduous, or dangerous work in an alien or contaminating environment. The picture of

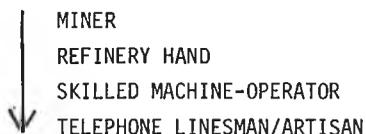
* These names are given merely for convenience, and do not imply that their meanings were necessarily conveyed by the picture, nor that the respondents necessarily saw the pictures in these terms.

For this reason the names appear in inverted commas wherever they are used in this text.

of the "Refinery Worker" was intended to in some degree convey a theme of working in close proximity to heavy or large-scale technology, also in an unusual or alien environment. The picture of the "Machine Operator" was intended in part to carry a theme of work in close proximity to complex, precision, and possibly dangerous, technology. The picture of the "Telephone Linesman", in conjunction with the introductory comments which accompany it in the questionnaire,* was intended to fairly clearly suggest a theme of advancement into work which is much more skilled and rewarding, but which would also carry very real risks and challenges. It was in this last context that fairly crucial questions were put to the respondents regarding a person's ability to progress in such a predicament.

Although the pictures do not necessarily present sufficient detail or information to clearly identify a particular *job* in each case, they do convey to most respondents that differing and familiar *types of work* are represented. Thus, pictures B5, C1, D4 and BC1 do recognizably show a manual type of work, a semi-skilled or "attendant" type of work, a skilled or machine-operator type of work, and an artisan type of work, respectively.

In fact, bearing in mind that the pictures are designed to be shown sequentially to respondents in the order: B5, C1, D4, BC1, the series of pictures as a whole, and the corresponding characteristics of work depicted or implied, can be seen to represent a *continuum of jobs*, suggestive to some extent of a promotional or career pathway — or alternatively, a process of advancement.



* The introductory comments accompanying the "Telephone Linesman" picture read as follows: "This picture shows a person who has recently started in a new job. This job is paid better than his last job, but it is more difficult."

Moving through the continuum represents a progressive increase in the skill, pay, and status implied by the jobs, and a progressive decrease in physical effort and in the degree to which the working environment is alien. (The only anomaly in these continua is the unusual work environment of the Telephone Linesman.) There are, in this sense, a number of dimensions to the continuum. Another important factor which varies across the continuum is the perception by most respondents of differential racial accessibility to the work. Mine work is typically seen by the respondents as a "job of blacks", i.e. an undesirable job which only blacks are prepared to do — and moreover, only blacks with the lowest education and privileges, or "stranded"* blacks. On the other hand, work as a telephone linesman is seen first and foremost by many blacks as conventionally a job reserved for whites, a factor which gives it an unmistakable fascination in spite of its other trying qualities. Although moving through the job continuum can be seen as representing a steady increase in job status and hence income, the choice of work scenes and the manner in which they are depicted also represent, we feel, a steady increase in the sense of challenge, responsibility, isolation, and even risks involved. For this reason we consider that an aspirant blue-collar worker examining the range of jobs would not automatically feel a preference for the more senior jobs**, as those that are more "advanced" appear also more daunting. A choice would not necessarily be simple.

The characteristic of "continuum" in the significance of the work pictures has been deliberately encouraged by us in the sequence in which they are presented.

* an English term commonly used by Zulus to mean persons who are unemployed, destitute, desperate, and generally without choices: persons with "Hobson's choice."

** a ranking of the work types, which was requested of the respondents, is described later in this report.

How did we use the work pictures? In the experimental procedure the respondents were told that they would be shown a series of pictures of people working, and that they would be asked questions about each picture. The respondents were encouraged to relax and use their imagination in answering the questions, freely stating whatever the pictures might suggest to them. The pictures were presented one at a time, and for each picture a matching page of the questionnaire provided a series of questions, phrased so as to be appropriate to elicit the images, stereotypes, feelings, ideas, needs, and other implications which might be evoked by that work scene, while remaining as open-ended as possible. These questions always ostensibly refer to, and apply to, the persons shown in the picture, and never to the respondent. Respondents were asked to examine the picture carefully and to then answer the questions quickly and spontaneously, completing this task before proceeding to the next picture. The relatively "light" structuring of this response format may be confirmed by an examination of the four pages bearing the questions, copies of which are reproduced in Appendix A of this report (q.v.).

With virtually all respondents the response format has, in conjunction with the pictures, worked very much as intended. Our analysis of the responses reveals initially that in most cases the respondents have tended to empathise with the persons shown in the pictures, and correspondingly appear to have reacted to the questions in terms of a subjective, rather than objective, appreciation of the situations depicted. This encourages us in our conviction that the responses generated by our method resemble the responses that would occur if the respondents were themselves actually placed in the corresponding real work situations.

To conclude, three aspects of our technique are noteworthy at this point: the use of pictures to "describe" a situation which is to be discussed; minimal structuring of the attached questions or stimuli used to elicit cognitive and affective reactions to that situation; and an emphasis on spontaneity in

responding. There are important implications of this technique which, we believe, enhance the authenticity of the data recovered. The pictorial identification of a job and the open-ended response format mean that we (the investigators) make no pre-emptive verbal description or definition of the situation (which might differ from that of the respondents) and that correspondingly we permit the respondents to freely assign their own meanings to the situation as they respond. The presence of a person in the pictures, together with a very spontaneous appraisal of the situation, and the giving of responses in the third person, encourage a relatively unconscious projection of the respondents' perceptions and assumptions onto the depicted worker who is ostensibly being discussed. This is not necessarily the sort of projection which reveals very obscure aspects of personality, but it is a level of projection which facilitates a free and relatively unconscious expression of genuine ideas and feelings with a minimum intervention of calculated responses. Thus the responses tend to be couched honestly, in terms of the respondents' own prominent values and worldview, and with a minimum of self-censorship.

CHAPTER 2.IMAGES OF INDUSTRIAL WORK.

In the following two chapters of the report information on the respondents' views of industrial work is analysed and presented in two ways. First, a detailed analysis of response types in respect of the four types of work is given, often in semi-diagrammatic form. This analysis takes account of a great deal of detail and variability in the responses. Later, the detailed information is used to generate, for each respondent, a more general assessment of the "confidence" with which he views each form of work, and the corresponding prospects for self-advancement in it. This analysis yields two relatively crude "confidence" variables intended for use in further correlation analysis with other variables.

For each of the four types of work considered by the respondent, the response format has supplied a standardized set of approximately half-a-dozen questions (Appendix A). These questions have generated a half-dozen corresponding species of information, representing the respondent's appraisal of that work situation from various perspectives. For example, the question "As you see him now, how is this person *feeling?*", referring to the worker shown in the picture, tends to generate answers describing the respondent's *affective state* as he confronts the situation depicted. Recalling what sort of information each question was intended to recover, we have been able to categorize or place each response to that question on a corresponding variable — for example, a variable describing the type of mood or feeling evoked by the work in question. This derivation of the results about to be presented will become more clear to the reader on inspection.

On this basis the questions applied to each type of work yield essentially three sorts of information:

- variables describing the respondents' typical conception of the *work* depicted;

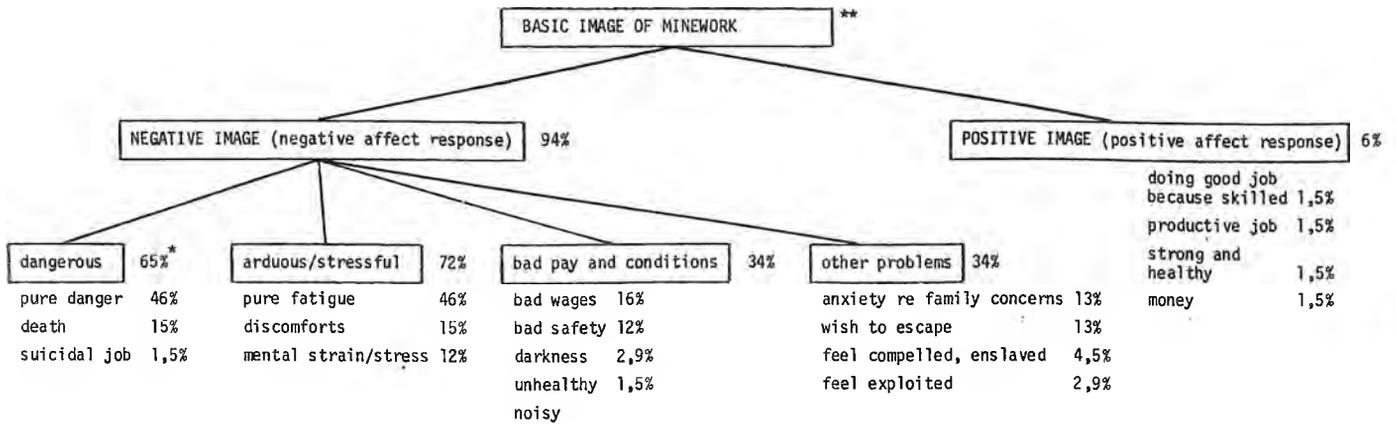
- variables describing the respondents' typical conception of the *worker* depicted; and
- variables describing the *outcomes* or *prospects* typically expected by the respondents to result from the situation depicted.

Moving now to the first type of work situation presented to respondents, picture B5 or "Minework", the images or stereotypes typically held of this kind of work are schematically presented in Figures 4, 5, 6 and 7, on the following pages. Each figure shows the various categories and sub-categories of response arising out of a named perspective on the work, and the proportion of respondents giving responses in each category. Note that for all the results which will be presented, the proportion of respondents giving any specified response is always expressed as a percentage of the total number of persons answering the question, and that this latter value is in most cases the full sample or a figure very close to it.

2.1 IMAGES OF MINEWORK.

Virtually all respondents recognize situation B5 as minework. The results presented in Figure 4 (q.v.) reveal that the *basic image of minework* held by our sample of African factory workers in Durban is overwhelmingly negative. Minework is primarily seen as distressingly strenuous and as taking place in a dangerous and fearful environment. A diffuse anxiety colours most conceptions of the minework situation, an anxiety based mainly on the nature of the work itself but also on what are seen to be notably poor formal conditions of employment, such as pay and safety provisions. Another prominent negative characteristic associated with minework is the migration and separation from home which it necessitates. Anxiety in this respect is expressed in responses associating minework with concern for distant families, and with an impulsive need to escape the work situation. These findings tend to confirm indications from other research that minework is commonly perceived by Zulus as a dangerous and debilitating treadmill, and that debilitation is feared as being of a permanent nature.

FIGURE 4. IMAGES OF MINEWORK : I.

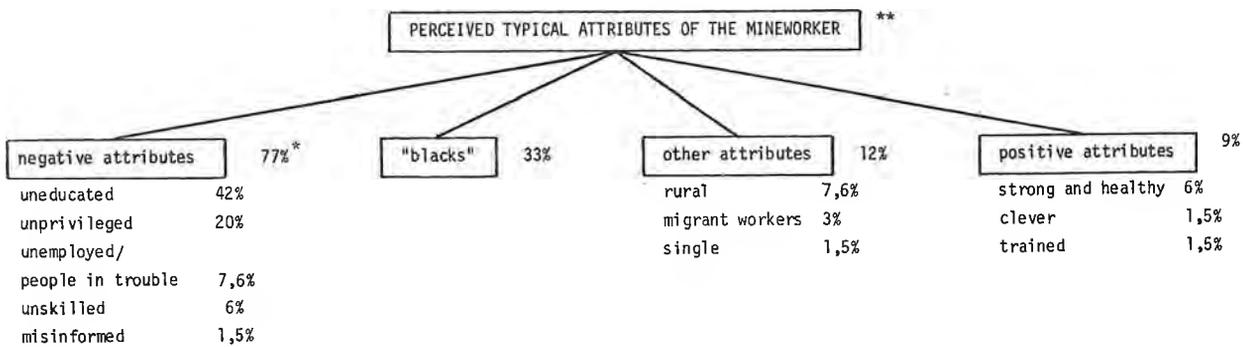


** Based on responses to the two questions: "As you see them now, how are these people feeling?" and "What are these people thinking?"

* NOTE: — Frequencies of responses in these sub-categories are expressed as percentages of *all* respondents, not as percentages of the "parent category".

— Frequencies of the various sub-categories of negative and positive image may add up to more than 100 percent as many respondents mention more than one characteristic of the job.

FIGURE 5. IMAGES OF MINEWORK : II.

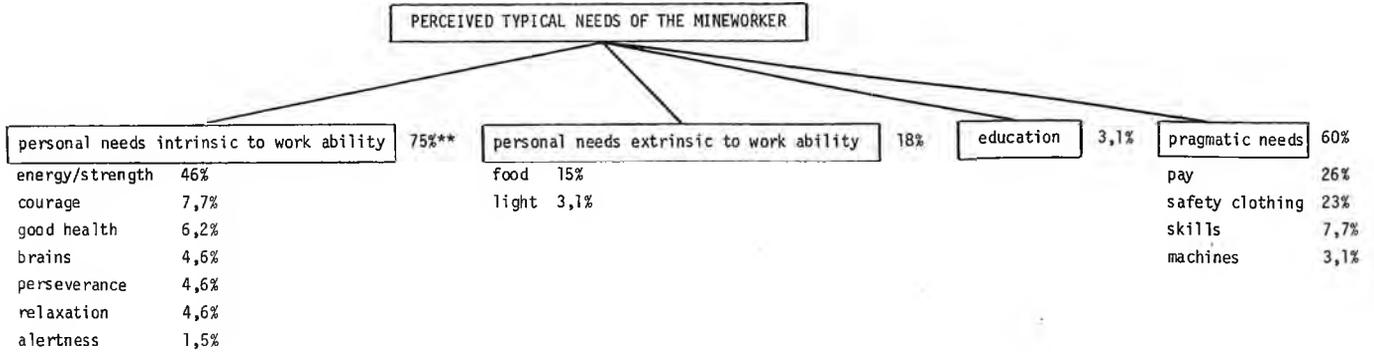


** Responses to the question: "What kind of people usually do this work?"

* NOTE: — All frequencies are expressed as percentages of the total sample.

— Frequencies of these categories of response may add up to more than 100 percent, as many respondents mention more than one attribute.

FIGURE 6. IMAGES OF MINEWORK : III.

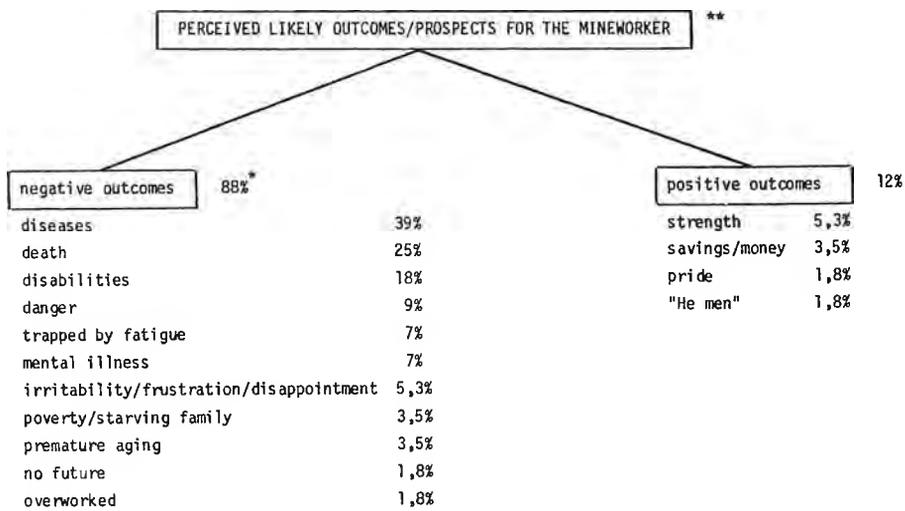


** Responses to the question: "To do this kind of work, what do these people need most?"

* NOTE: — Frequencies of main response categories may add up to more than 100 percent, as many respondents mention more than one need.

— All frequencies are expressed as percentages of the total sample.

FIGURE 7. IMAGES OF MINEWORK : IV.



** Responses to the question: "Usually, what are the effects of this kind of work on people who do it?"

* NOTE: — All frequencies are expressed as percentages of the total sample.

So vivid do the dangers and physical conditions appear to most respondents, that wages are not found to be the prominent criterion of evaluation of minework; nevertheless, in the few instances where wages are mentioned they are regarded as poor or disappointing.

Figure 5 (q.v.) reveals an appropriate and correspondingly negative image of the *typical mineworker*. By far the commonest personal characteristics attributed to mineworkers are negative or problematic ones. Thus for most respondents, mineworkers are typically seen as uneducated, statutorily and socially unprivileged, poorly endowed in other ways, of rural origin, or just "black". These are all ways of saying that the type of person performing minework is a disadvantaged person, the implication in many responses seeming to be that it is only such "stranded"* persons who could be induced to take up such work.

Figure 6 (q.v.) expresses what the respondents consider to be the *mineworker's principal needs* in the work situation. The classification of these various perceived needs is not easy. The attributes expressed in the various responses have been divided broadly into "personal needs", which are qualities or needs which would very directly or intimately affect the worker's performance and experience of the work; and "pragmatic needs", which are more formal adjuncts to the working situation. The former category of responses has in turn been divided into personal needs "intrinsic to work ability", which are qualities which the worker himself would bring to bear on the work; and personal needs "extrinsic to work ability", which are assets which the employer would more likely bring to the job.

The typical workplace needs of the "mineworker" expressed by the respondents tend to confirm the bleak image of this type of work revealed in Figure 4. The most prominent "personal needs intrinsic to work ability" mentioned are energy, strength,

* Recall footnote, p. 15.

and courage — the qualities necessary to meet a harsh and dangerous environment — while one of the most commonly mentioned "pragmatic needs" is, correspondingly, safety clothing. Most prominent of the mentioned pragmatic needs is pay, but mentioned only half as often as the need for strength.

The underlying significance of the different types of responses presented in Figure 6 is interesting, as it tells us something about the attitudes of the respondents in our sample as well as something about popular stereotypes of minework. In the sense that the category "personal needs intrinsic to work ability" (q.v.) represents qualities or assets which the worker himself would bring to the job, responses in this category implicitly express the respondent's assumption that he would personally take responsibility for getting the work done. By contrast, responses in the categories "pragmatic needs" or "personal needs extrinsic to work ability" seek assets or resources from the employer, implicitly expressing a need for external help, assistance or protection on the part of the respondent. The former types of response assume that the worker will "engage" with the work essentially unaided, suggesting a relatively autonomous and confident orientation, while the latter types of response suggest an unwillingness to fully commit oneself unaided.

With this perspective, about three-quarters of the responses given reflect a concern with the worker's development of himself and an assumption of personal responsibility for undertaking the work, with the qualification that about half of all responses also contain an expression of need for assistance.

To complete the image of minework prevailing among our sample of industrial workers, Figure 7 (q.v.) sets out the *typical effects or outcomes of minework* for those engaged in it, as imagined by the respondents. These responses appear only to consolidate the poor image of minework already revealed. A very large majority of responses refer to alarming or disastrous outcomes, the most commonly mentioned being disease or illness,

death, and disablement. Except in a very few cases, minework seems to be perceived as an ordeal from which one does not emerge in a healthy, "whole", or satisfied condition. To put it slightly differently, the great majority of respondents have an extremely low confidence in their imagined ability to undertake minework in a satisfactory or fruitful way.

To sum up these impressions, in the case of the "minework" situation, the work is seen for the most part as very arduous and debilitating, the workers as disadvantaged or weak and in need of help, and the effects of the work as personally damaging and inimical to self-advancement. This latter restraining aspect of the stereotypical mineworker's predicament is perhaps most graphically described by a small minority of respondents as a state of being "enslaved" — a term used to describe a person who feels so circumscribed by fatigue, long hours, and low income as to be unable to make plans, break out of routine, or change his situation.

In the handful of cases where the "minework" picture is incorrectly identified by respondents, it is usually seen as other forms of equally heavy manual industrial work, and with a very similar profile of characteristics to that of minework proper, namely:

- rough and strenuous conditions of work,
- feelings of tension and strain,
- concern for personal safety and health,
- concern with earning money for mere survival,
- uneducated or "stranded" workers,
- a need for strength, courage, endurance, and protection,
- prematurely debilitating consequences.

Although very probably nearly all the respondents have not had direct experience of minework, they invariably hold, if the phrase may be permitted, this "Gulag stereotype" of it.

2.2 IMAGES OF WORK AS REFINERY HAND.

Information we have recovered regarding views of the "Refinery Hand's" work situation has been analysed in essentially the same manner as that in the preceding section.

Responses elicited by picture C1 in conjunction with the associated response format C1 are presented in the following pages and Figures. The scene depicted is recognized by virtually all respondents as being some form of refinery or continuous-flow production process. Prominent characteristics noted are the heavy-industrial nature of the setting and the isolation of the depicted worker.

The information presented in Figure 8 (q.v.) tells us about the *feelings* evoked by this work scene as respondents confront it. The majority of these feelings, in about three-quarters of all responses, are affective or emotional in nature. Of these affective responses the positive ones, indicating mainly a feeling of happiness, confidence or satisfaction, slightly outnumber the negative ones, which tend to express feelings of anxiety or insecurity. Most of the remainder of our sample, about one-quarter, respond with feelings of a more pragmatic orientation but positive value — principally feelings of responsibility or concern for the work. A significant majority of respondents, then, have a favourable initial response to the work situation of the "Refinery Hand".

Complementing Figure 8, Figure 9 (q.v.) describes the *ideas* or *meanings* which are immediately evoked by the "Refinery Work" scene. About one-fifth of responses consist of thoughts not about the work itself but rather about the need for various forms of assistance or reward as conditions for undertaking it. In other words, concerns intrinsic to the work are not evoked in these cases. In the remainder of cases, however, the situation evokes ideas or concerns intrinsic to the undertaking of the work, the majority of these indicative of realistic and positive involvement with the work. Finally, for about one-fifth of respondents the

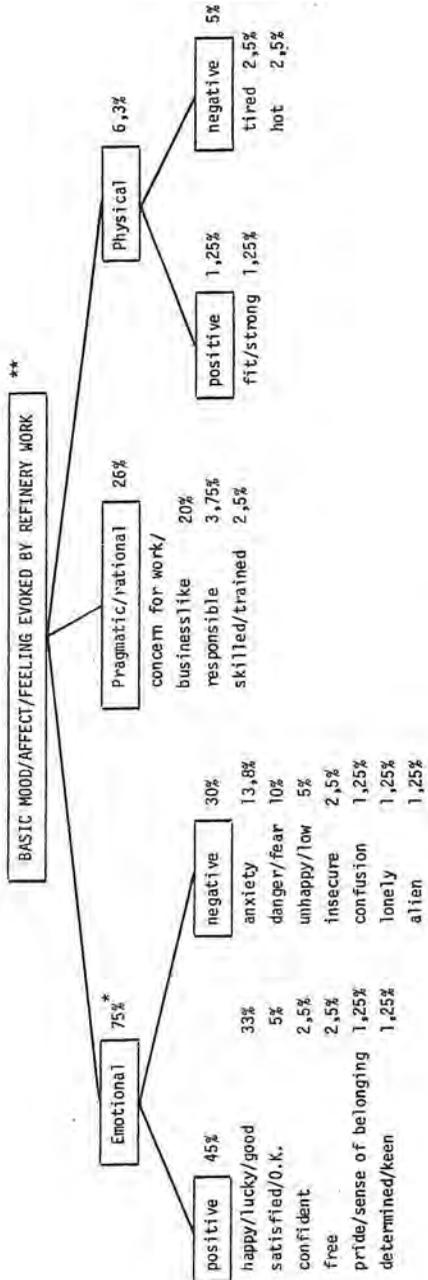
thoughts evoked by this scene concern problems perceived to be intrinsic to the job, such as danger or loneliness. In more than half of the respondents, then, this work scene prompts an apparently authentic interest in the work, expressed in responses of a constructive and optimistic nature.

Feelings about the *isolation* of the depicted Refinery Worker, which are expressed in Figure 10 (q.v.), tend to be polarized. Most of those who view the isolation negatively see in it a lack of safety, of help, and of companionship; whereas those who view the isolation positively see in it a freedom from close supervision and an opportunity for increased responsibility and attention to the work. These points of view are about equally represented.

The most prominent *perceived needs* of the depicted worker, set out in Figure 11 (q.v.), present an encouraging image of Refinery Work. Although about one-fifth of responses express a need for resources which would constitute external help or assistance to the worker, the remainder express practical job-oriented needs. In particular, nearly half of the respondents mention abilities intrinsic to the worker as needs in this situation, implying a personal commitment and attitude of responsibility for the work.

The *expected outcomes* of this particular work situation also present a relatively encouraging picture. As can be seen in Figure 12 (q.v.), a clear majority of respondents associate work in the situation depicted with the likelihood of eventual promotion or advancement. A further proportion would expect changes or outcomes very probably representing an improvement in the occupational status of the worker, although not necessarily in the same sphere of work. A proportion of less than a quarter of respondents foresee stagnation in this form of work.

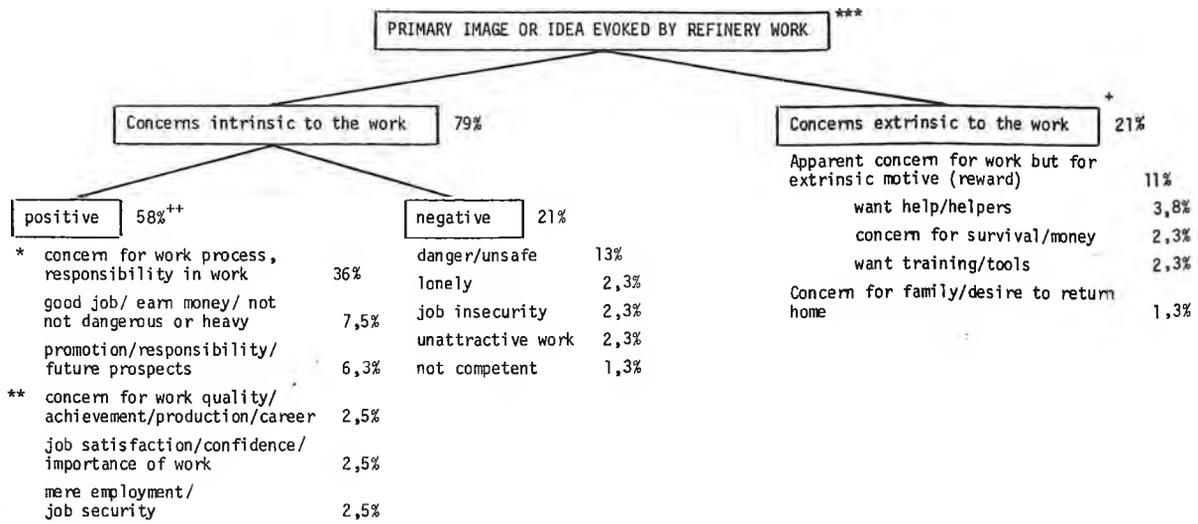
FIGURE 8. IMAGES OF REFINERY WORK : I.



** Based on responses to the question: "As you see him now, how is this person feeling?"

* NOTE: — Frequencies of these response categories may add up to more than 100 percent, as many respondents mention more than one feeling.

FIGURE 9. IMAGES OF REFINERY WORK : II.



*** Based on responses to the question: "What is this person thinking?"

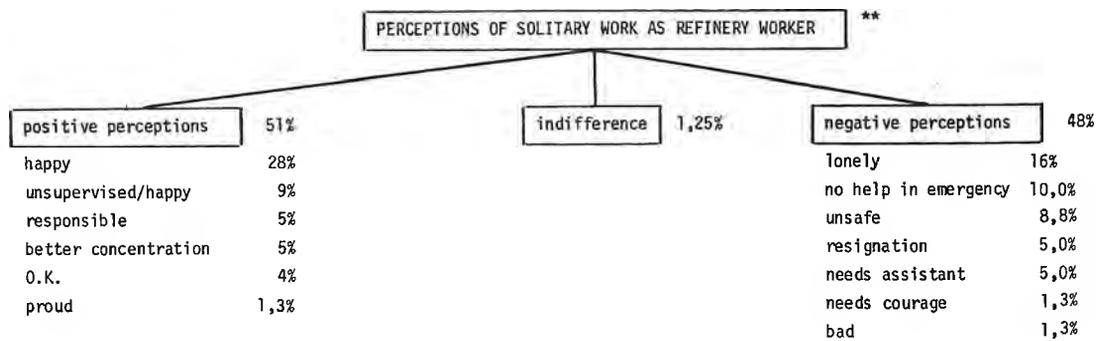
* Indications of moderate work commitment.

** Indications of stronger work commitment.

NOTE: ++ Frequencies of sub categories do not necessarily total 100 percent.

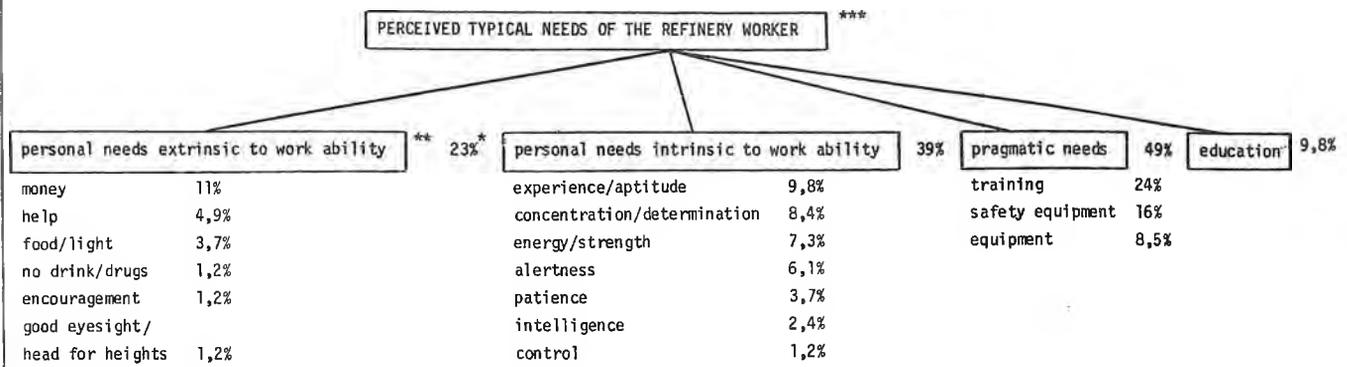
+ These concerns implicitly express a "need for help" on the part of the respondent.

FIGURE 10. IMAGES OF REFINERY WORK : III.



** Based on responses to the question: "How does this person feel about working alone?"

FIGURE 11. IMAGES OF REFINERY WORK : IV.

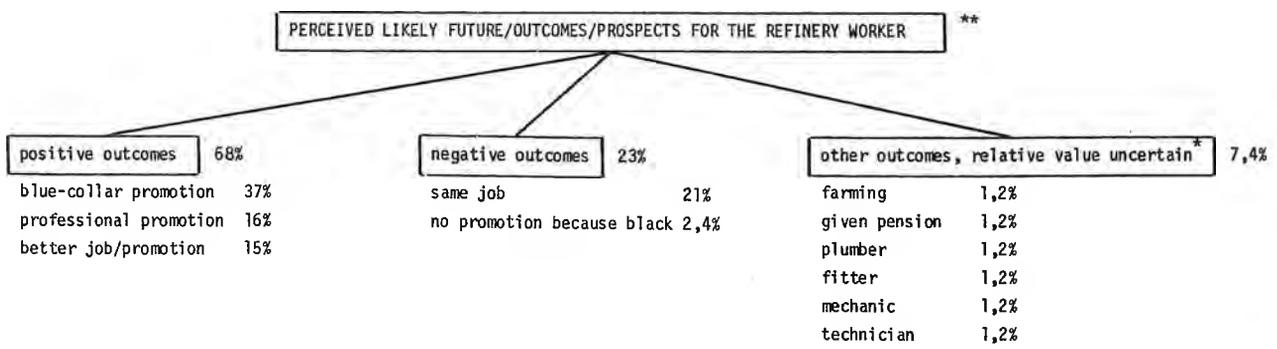


*** Based on responses to the question: "To do this kind of work, what does this person need most?"

** Most of these needs implicitly express a "need for help" on the part of the respondent.

* NOTE: — Frequencies of these response categories may total more than 100 percent, as many respondents mention more than one need.

FIGURE 12. IMAGES OF REFINERY WORK : V.



** Based on responses to the question: "In five years time what will this person be doing?"

* Although the subjective value of these outcomes, relative to the refinery job, is uncertain, most of these would probably represent an "advancement" of some kind to the respondents.

To sum up these views we should mention that the mainly positive views of the refinery work situation expressed are nevertheless tempered by significant minority expressions of concern, doubts or anxieties. The sense of status, or security, or optimism attached to this form of work is by no means secure, it would appear. Indeed, we suspect that the sequential nature of our experimental method may, by introducing this work form directly after that of mining, have had the effect of somewhat exaggerating the favoured characteristics, by reason of contrast. In other words, an element or feeling of "relief" that is essentially accidental but which positively colours responses to "Refinery Work" may rather reflect a certain relaxation in contrast to the immediately prior experience of examining minework, than a true liking for the work itself.

2.3 IMAGES OF WORK AS MACHINE OPERATOR.

The picture D4 (q.v.), named "Machine Operator" for convenience, was intended by us to convey a skilled type of work, with a suggestion of complexity, precision and possibly danger in the work arising out of a direct use of technology. Virtually all respondents correctly identify the situation depicted with some accuracy.

In general, the sight of what is usually recognized as sophisticated and valuable machinery in this scene seems to spark off a new and brighter mood in the responses evoked. Through many of the answers and comments made by respondents runs an assumption that to have attained to such a job as this is to have confidence and competence, to have valued skills and insight into production processes rather than naive impressions, and to have gained acceptance into perhaps the lower rungs of a continuous career of employment within the industrial system rather than the relatively peripheral involvement of migrants or casual labour. In fact, this type of work tends to be seen as having not only a higher status than the preceding types, but also as having a more *definite* status.

That work of this nature has a decidedly positive image in spite of being more difficult is suggested by the responses presented in Figure 13 (q.v.), describing the *initial mood* evoked by the "machine operator's" work situation. A large majority of responses are purely affective, and almost all of these are positive, expressing feelings of happiness, satisfaction or confidence. Similarly, among the responses classified by us as more "pragmatic" in nature, the majority are also positive, describing feelings of ambition and concern for the work. The perennial negative concerns of loneliness, poor safety, and fatigue associated with most industrial work are in this situation expressed by hardly more than one-tenth of the respondents.

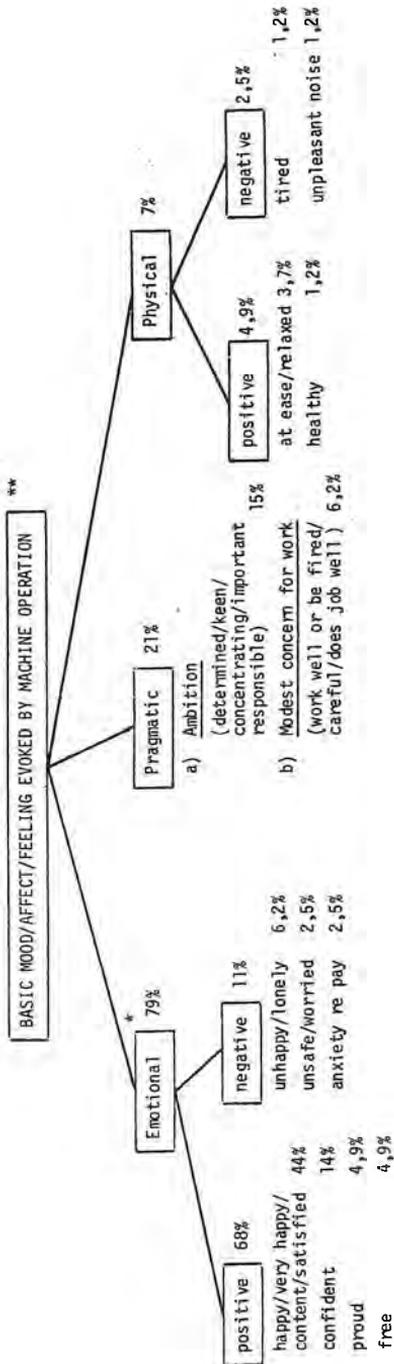
The *thoughts or ideas* ascribed to the machine operator, summarized in Figure 14 (q.v.), are almost all concerned with the nature and demands of the work itself, rather than with "hygiene" factors. Of these intrinsic-to-work responses the two-thirds majority which are positive in orientation express clear signs of work commitment based on concerns with work competence, achievement, and even personal advancement. Although these positive responses are not in a particularly large majority, they are expressed in sophisticated and professional terms — not diffusely. Against this must be set a proportion of about one-quarter of responses expressing worries about poor safety and risk of injury in the job. The fear of danger thus seems to be prominent in a sizeable proportion of the respondents, but the work is evidently of a type to be taken much more seriously in spite of this.

The residual anxiety about the possible danger of the work is expressed again in the respondents' evaluations of the *solitary nature* of the machine operator's job, summarized in Figure 15 (q.v.). For about one-fifth of the respondents the solitary nature of the job is negatively perceived, evoking a feeling of danger or a need for assistance. For the remaining majority of respondents, however, the fact that the machine operator works

alone evokes clearly positive responses — enjoyment or confidence for some, and pleasure at the idea of working autonomously and without distractions for others. As in the case of the refinery hand, the feelings about working alone are polarized, with the positive perceptions seeming to recognize and understand that the independent work is part of the nature and the value of the job. The proportion of respondents who place a positive value on the machine operator's working alone is greater than in the case of the refinery hand — 78 percent, compared with 51 percent — confirming the apparently greater relaxation and confidence which this work-type inspires.

The *perceived typical needs* of the "machine operator", set out in Figure 16 (q.v.), are seen in an overwhelming majority of responses to be either personal work abilities such as diligence or calmness, or as learnable work skills relevant to the job — that is, in nearly all cases as productive factors which the individual would bring to the job. These responses imply a seemingly realistic understanding of the job-requirements, and a recognition of the personal efforts and responsibility required to master work of this kind. The proportion of responses expressing a need for "help factors" of some kind is very small, at about 5 percent. Thus, although this work would require more skill than the preceding types, we find a greater readiness to invest more effort and commitment in it on the part of the respondents, who seem to assess this work-type as a better investment or having better potential. The expressed need for assets which are not strictly work-intrinsic, such as protective clothing or adequate pay, seem to us, from our examination of responses, to reveal a realistic orientation in response to this work rather than an abdication of responsibility or a desire for assistance.

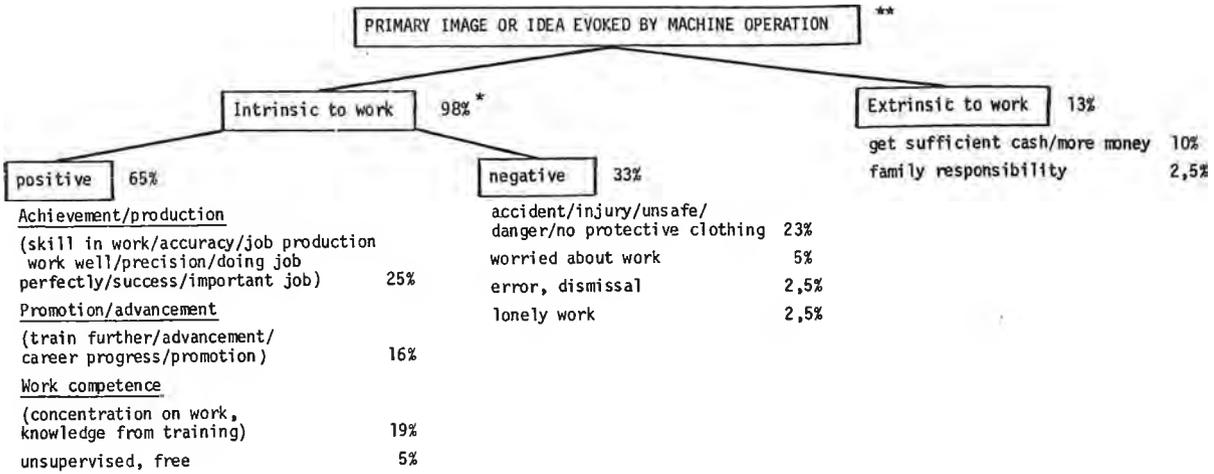
FIGURE 13. IMAGES OF WORK AS MACHINE OPERATOR : I.



** Based on responses to the question: "As you see him now, how is this person feeling?"

* NOTE: --- Frequencies of these categories of response may total more than 100 percent, as some respondents mention more than one feeling.

FIGURE 14. IMAGES OF WORK AS MACHINE OPERATOR : II.

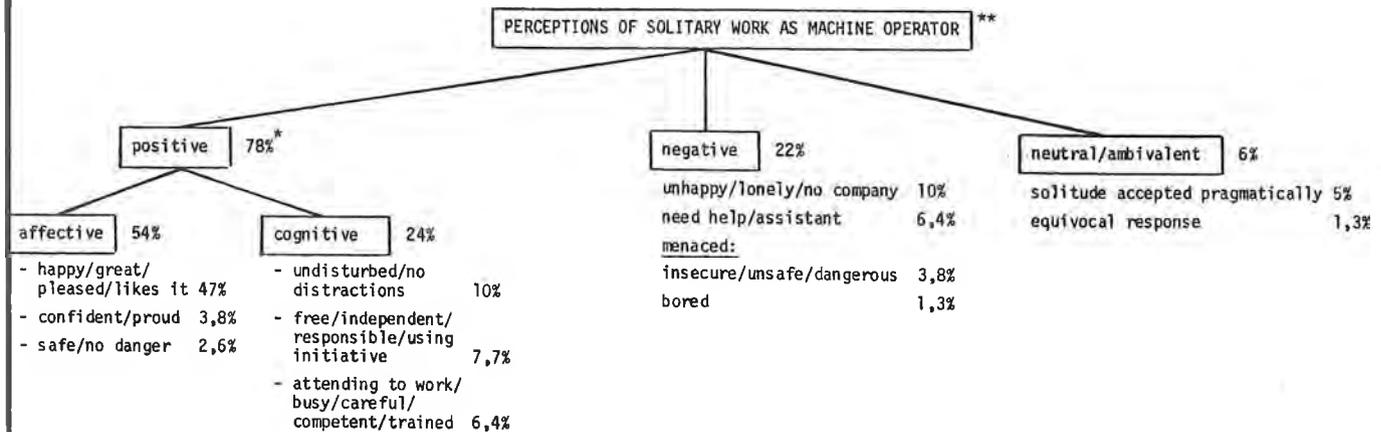


38.

** Based on responses to the question: "What is this person thinking? Why?"

* NOTE: — Frequencies of responses in these categories of response may total more than 100 percent, as some respondents mention more than one idea.

FIGURE 15. IMAGES OF WORK AS MACHINE OPERATOR : III.

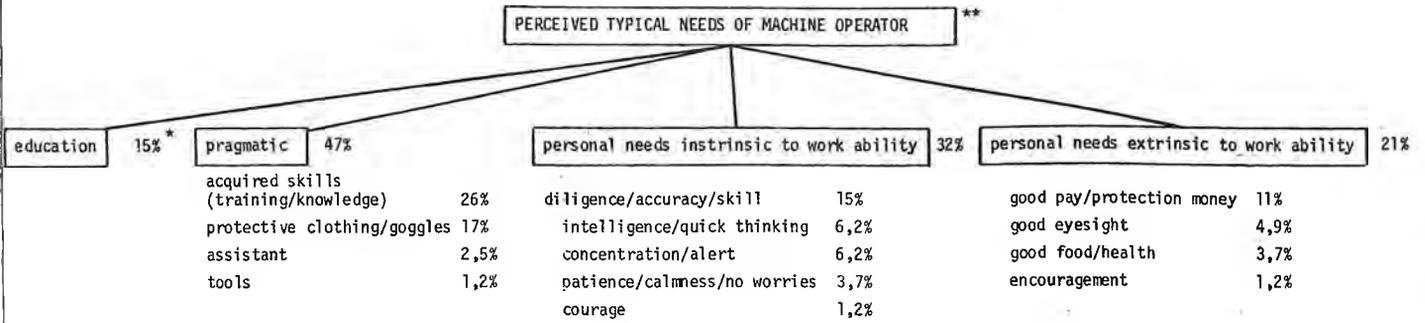


39.

** Based on responses to the question: "How does this person feel about working alone?"

* NOTE: — Frequencies of responses in these categories of response may total more than 100 percent, as some respondents give more than one opinion.

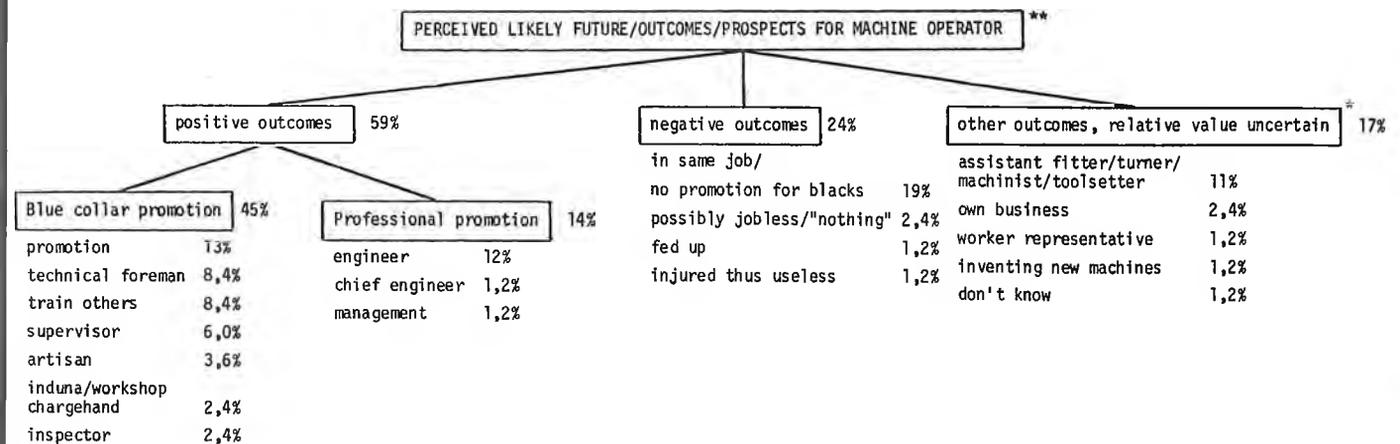
FIGURE 16. IMAGES OF WORK AS MACHINE OPERATOR : IV.



** Based on responses to the question: "To do this kind of work, what does this person need most?"

* NOTES: — Frequencies of responses in these categories may total more than 100 percent, as some respondents mention more than one need.

FIGURE 17. IMAGES OF WORK AS MACHINE OPERATOR : V.



** Based on responses to the question: "In five years time, what work will this person be doing?"

* Although the subjective value of these outcomes, relative to that of the imagined machine operator, cannot be assumed with certainty, it is likely that virtually all would represent an "advancement" in the view of the respondents.

Realism is perhaps at its maximum when the respondents are asked to predict what the "machine operator" *will be doing in five year's time*, the responses to which are summarized in Figure 17 (q.v.). This realism requires a consideration of career and structural factors outside the immediate domain of the job, and this may explain why in spite of the favoured image of the machine-operator and the positive responses to his work situation, a quarter of the respondents nevertheless foresee negative outcomes for this type of worker. This divergence may be an effect of such factors as the present socio-political dispensation, or economic trends and legislation limiting the accessibility of jobs, or race-attitudes in industry, insofar as these factors influence the outlook, assumptions and self-image of black working men. Where this intervention of relatively external factors is absent, however, the perceived high status and potential of the job itself seems to determine responses, yielding an apparently high quality, as well as high proportion, of imagined positive outcomes. (Refer to Figure 17.) Thus, while the negative outcomes tend to be expressed in structural or institutional terms, such as low chances of promotion for blacks, the positive outcomes tend to be expressed in much more professional and job-specific terms, in which particular and more skilled or advanced jobs are named. What we seem to find is that if structural constraints are eased, our African respondents are prepared to optimistically foresee their own advancement in work of this kind. This view is perhaps reinforced by the significant proportion of responses which express optimism at professional level while seemingly side-stepping structural inhibitions. In these responses,* about one-fifth of respondents do foresee personal development, but not necessarily in the work situation

* For example: "Will start his own business."
 "Will be training others."
 "Will be a worker representative."

shown in our picture. In other words professional continuity is accepted even if structural freedom is not foreseen.

To sum up the responses to picture D4, or "machine operator", this job is the first in the continuum to evoke reasonably relaxed, unforced appraisals by the respondents, characterised in most cases by a general feeling of cautious optimism. The men seem to confront the work depicted in a mood of recognition, familiarity, and hence ease, rather than tension. The job is valued by nearly all respondents, even if they are not confident about their own possible involvement with it. Achievement imagery, scored from all four response formats for another aspect of this study, reaches a maximum with this picture. For many respondents their entire perception of this work scene seems more vivid and real, as evidenced by their responses, than with prior scenes. Responses are more detailed, less hypothetical. We consider this fact to be just as much due to the nature and image of the work depicted as to, say, the increased detail and scale of the picture. Not all appraisals of this work are realistic, particularly those made by respondents who are themselves employed in less skilled work. In this minority of cases, successful outcomes for the "machine operator" seem to be regarded as somewhat automatic, rather than achieved. Likewise, to some the job is appealing though at the same time slightly overawing or inaccessible. However, the attendant mood in both cases is positive.

The general image, then, of this type of skilled work using technology is evidently appealing to our African respondents, and evokes realistic interest, motivation, aspirations, and a willingness to learn. With the exception of a very small minority who see the work as dangerous, the problems perceived in this situation relate to *opportunity for advancement*, whether constrained by structural factors or by individual confidence, rather than to the nature of the work itself.

2.4 IMAGES OF WORK AS TELEPHONE LINESMAN.

The last picture shown to the respondents, BCl (q.v.), is in some senses a critical one. The basic theme intended to be suggested by this picture, together with its corresponding response format (which differs slightly from the preceding ones), is one of advancement into more skilled and challenging work, but work which at the same time involves real risks and hurdles. With this theme clearly established, the respondents are asked unequivocally how they think the depicted worker will fare in the new job. Accordingly, the responses given to this combination of stimuli represent, we believe, a telling assessment of the perceived feasibility of black advancement in these sorts of conditions.

To virtually all respondents the work represented in picture BCl is recognized as prestigious, but the actual scene depicted is nevertheless unusual and somewhat startling — the "telephone linesman" is shown working in a difficult position at the top of a ladder. This aspect of the situation was intended by us to minimize any element of complacency in the responses generated. Rather as expected, therefore, we find that the incidence of anxiety or doubts in the responses to this work-type is increased, in contrast to that evoked by picture D4, which seems to be the most "comfortably-perceived" work.

In practice, then, the work of the "telephone linesman" is seen by many respondents as somewhat difficult or problematic, although recognized as definitely high in skill, and correspondingly "white" in status. In this sense, the work is seen as challenging and exacting, rather than as a good job taken for granted. In the context of our research method, whose projective basis seeks to identify the respondent with the depicted worker, this modest but significant component of challenge or doubt suits our purposes at this point. This is because we wish to assess the respondents' perceptions of the chance or opportunity for personal performance and progress in a context which

is as realistic as possible — in particular, with the respondent feeling perhaps a little daunted, and therefore speaking authentically, rather than responding in a mood of blind optimism or enthusiasm merely because the questions posed are in a sense hypothetical.

These conditions are reflected in the detailed responses to this work-type, which are presented in Figures 18 to 21 below (q.v.). In Figure 18 the initial *moods* or *affective states* evoked in the respondents by this work situation are set out. Compared with the situation of the machine-operator, the proportion of uneasy responses has, it will be seen, increased, to almost half of all responses. Among the negative responses a concern with danger and exposure is prominent, and in these cases this anxiety is evidently strong enough to taint the otherwise positive image and status associated with the job. On the other hand, among the positive feelings reported, pride and aspects of motivation for the first time significantly enter the perception of the job, indicating a recognition of the quality of this work type. Thus, as if in confirmation of the Herzberg "Two-Factor Theory" of job-satisfaction, negative sentiments tend to be associated with "hygiene" factors, and positive sentiments with "motivator" factors.

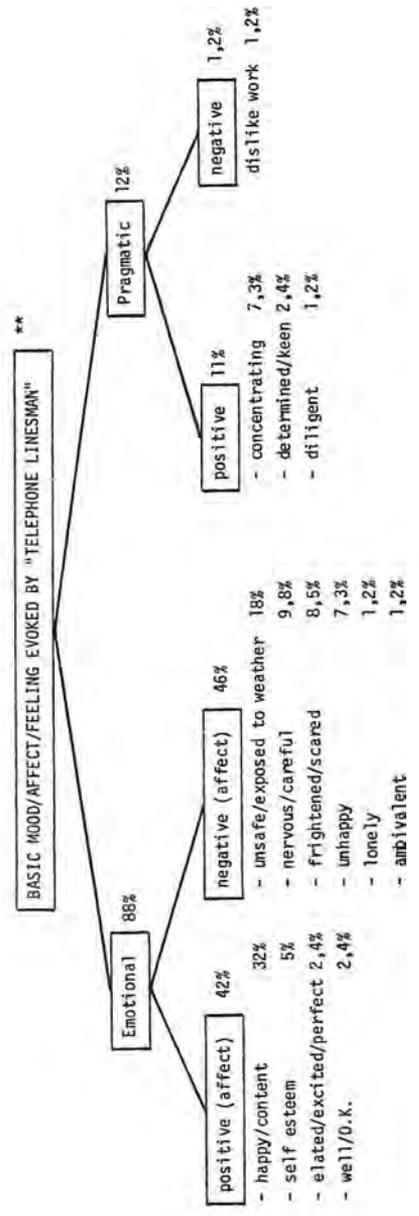
The distribution of essential or basic *ideas* associated with the work of the telephone linesman, which is set out in Figure 19, confirms the findings of Figure 18. The salience of an essentially negative image of the work, in this case based mainly on perceived danger, is, compared with the two previous work-types, up, to about one-half of all responses. For most of these responses the depicted situation evokes ideas of danger, anxiety and stress. At the same time, it is motivating factors and good morale which loom large among the positive images evoked — that is to say, the satisfaction of higher-order individual needs is also associated with this type of work. In this sense, two themes or forces, acting in opposition, appear to compete in forming the image of this work — on the one hand a view of the work as prestigious, competent, and self-actualising; on the other

hand, a view of the work as sufficiently dangerous to be distracting or discouraging.

From a methodological perspective, it may be mentioned in passing that we consider that the conflicting associations evoked by this work-scene make it a useful test of confidence or self-esteem. This variable is examined more closely in the next chapter.

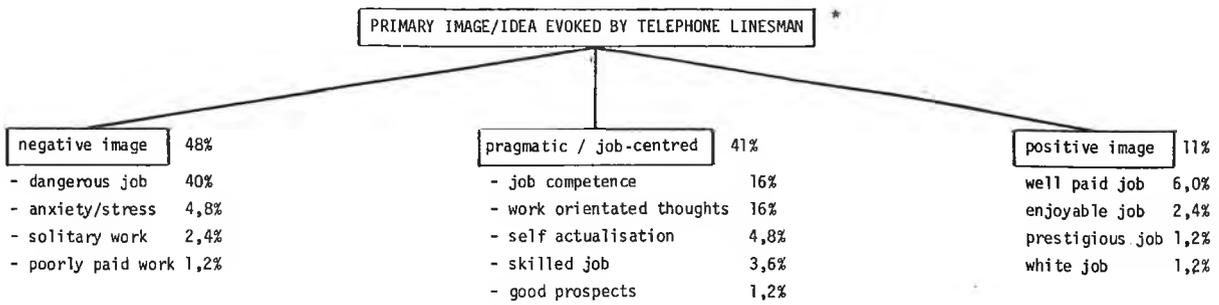
The *personal needs* perceived by our respondents as most urgent for the "telephone linesman" resemble those attributed to the "machine operator", as will be seen by comparing Figure 20 with Figure 16. The total of pragmatic responses and "personal, intrinsic" responses, which together represent the resources directly relevant to work which the individual would himself bring to bear upon his job, amount to a proportion which is about the same as it was in the preceding situation, though slightly increased as would be expected in the context of very skilled work. The particular response types occurring in the category "personal needs, intrinsic to work ability" (q.v.) reflect clearly a recognition of individual responsibility for the job, in spite of the fact that responses in the category "personal needs extrinsic to work ability", which may be seen as expressing a need for "help factors", are up — with safety equipment featuring prominently. The salience of "personal, intrinsic" responses is encouraging, not only because of what it tells us about the image of this work type but also because of what it tells us about the potential work-commitment and realism of the respondents. The perceived need for education, which is actually a remoter type of pragmatic asset, remains high for this job, and it would seem that in the view of many black workers the concept of "responsibility" in a job is (albeit slightly erroneously) directly associated with that of a higher level of education.

FIGURE 18. IMAGES OF WORK AS TELEPHONE LINESMAN : I.



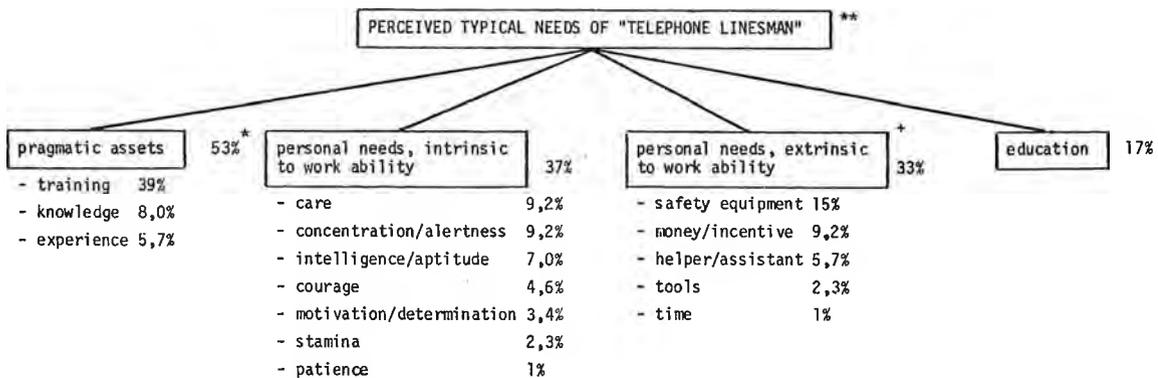
** Based on responses to the question: "How does this person feel? (What is he thinking?)"

FIGURE 19. IMAGES OF WORK AS TELEPHONE LINESMAN : II.



* Based on responses to the question: ("How does this person feel?) What is he thinking?"

FIGURE 20. IMAGES OF WORK AS TELEPHONE LINESMAN : III.

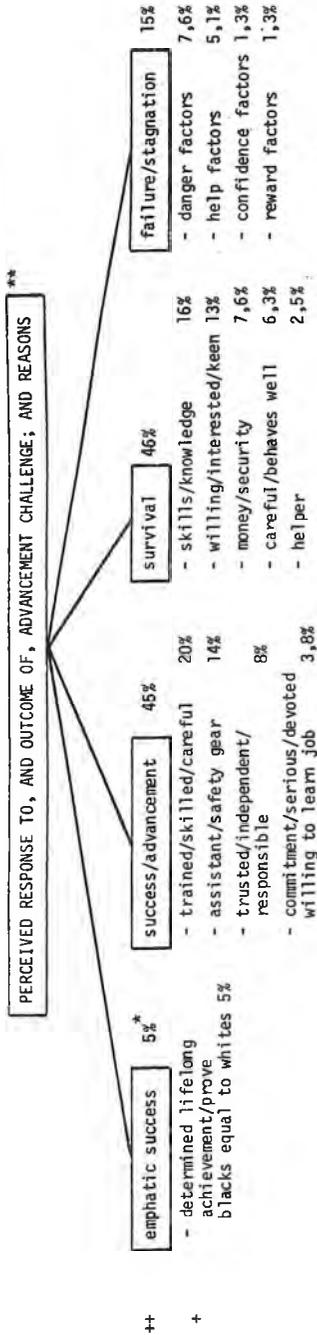


** Based on responses to the question: "To do this kind of work, what does this person need most?"

* NOTE: — Frequencies of responses in these categories total more than 100 percent, as many respondents mention more than one need.

+ "Help factors."

FIGURE 21. IMAGES OF WORK AS TELEPHONE LINESMAN : IV.



** Based on responses to the question: "Will this person be able to succeed in this new job, or not? Why?"

* NOTE: — Frequencies of responses in these categories may total more than 100 percent, as many respondents mention more than one outcome.

ROW LABELS:

++ ANTICIPATED OUTCOMES -

+ REASONS -

Once again, we find that the response to a skilled industrial job divides broadly, in terms of perceived personal needs, into two major and distinct types: a relatively autonomous "engagement" with the work; and an appeal, perhaps obliquely, for assistance or help factors from some agency other than the worker. One way or the other, the basic obligation to proceed with the work appears to be assumed in all cases — probably through economic pressure.

As was mentioned earlier, the work-situation depicted in picture BCl, the "telephone linesman", is somewhat critical in our experimental procedure, which attempts to evoke the idea, the feelings, the predicament, of the challenge of personal advancement in work. In confronting the depicted situation of the "telephone linesman", the respondents are, in the interview situation finally asked directly whether or not the depicted worker will be able to succeed in a new job such as this, what he will be doing five years hence, and why. The responses to this combination of situation and question are summarised in Figure 21 (q.v.), in which are set out the perceived responses of the worker to this "advancement challenge", together with the various reasons given for each imagined type of outcome.

Assessment of the responses in this case is made difficult by the fact that some respondents have mentioned more than one outcome, and described them in a manner which is not always self-consistent. However, in spite of this it is clear that at least half of our sample imagine that the "telephone linesman" will proceed to successful outcomes constituting advancement. Of the remaining responses, the great majority envisage outcomes of mere survival — that is, outcomes in which the worker manages to retain his job, albeit without improvement — while only a relative minority anticipate outcomes of failure or stagnation. The general tone of the responses, therefore, seems largely positive. In more objective terms, however, it is true to say that only half of the respondents have a truly optimistic view of the situation — as defined by responses implying mastery of the task, job, and situation, which would lead on to what could

be correctly called advancement. These respondents appear to show a more genuine and convincing confidence in the worker's (i.e. their own) ability to cope with this form of work. The other responses exhibit either a complete lack of confidence, or an equivocal or only apparent confidence.

The various reasons given for the different sorts of outcomes summarised in Figure 21 are interesting. Significantly, among those who predict "survival" for the telephone linesman, a high proportion suggest as reasons the possession of assets such as skills, knowledge, assistance, and income; while among those who predict "success/advancement" for this worker, a high proportion attribute this outcome to qualities such as care, dexterity, responsibility, reliability, dedication and willingness. In other words, success tends to be associated with particularly intrinsic abilities within the worker, while mere survival tends to be associated with relatively extrinsic assets or qualifications. What are we to make of these observations? These associations convey to us an implicit recognition by the workers that success in work is due not only to qualifications but also to what we might term less formal factors. More particularly, certain aspects of personal identity, or personality,* related apparently to inspiration or volition, seem to be recognized by a segment of our sample as necessary personal qualifications** for advancement. Those who predict mere survival for the depicted worker appear either not to be aware of these less formal qualifications or not to place any emphasis on their role.

The "less formal" qualifications just mentioned appear to be orientations favouring or facilitating *autonomous motivation*.

We may sum up reactions to picture BCI as follows.

-
- * "individually-based attributes" or "psychological traits" might be alternative terms.
 - ** not necessarily *sufficient* qualifications for advancement, but necessary qualifications.

Built into the popular image of the "telephone linesman" work, as revealed by our examination of the foregoing responses, we find a fairly clear instance of the image of a type of work, or at least an aspect of that image, acting as a barrier to work-commitment. In many cases the net evaluation of the job by a respondent is compromised by the risk factor. However, this appears to be the only significant compromising factor. And in a few cases the perception of a significant risk, and hence a negative view of the work, is still "overcome" in the final analysis by an optimistic outcome in the respondent's projection. There is an essentially realistic and businesslike approach to the answers and opinions given by the respondents. Those responses which add up to a positive view of the work are usually very enthusiastic. High skills or training, education and experience are emphasised as important characteristics of the work, while concentration, determination, and self-improvement tend to be evoked and recognized as important personal needs for this worker. Indeed, among those not discouraged by this job a palpable sense of striving is awakened in their responses. However the manner and tone of these responses also tends to convey a recognition that "intrinsic" or individually-located attributes alone are not enough. For the optimistic respondents, a will for self-improvement, *plus* further formal assets in the form of training and special skills are seen as the basis for success. As reflected in the views of the work itself and in the anticipated outcomes for this job, artisan skills tend to be seen as a doorway to independence and to work which is less formally organized and supervised.

A high degree of congruity is evident in the respondents' perceptions of the work, of the worker, and of the likely futures of the worker (see Figure 22). The basic image of the work is seen as favourable to about half our sample, and as unfavourable to the remainder. Correspondingly, favourable outcomes for the worker are expected by about half the respondents, with problematic outcomes predicted by the remainder. Finally, a higher-than-average proportion of respondents, approaching half, name extrinsic

or "help" needs in describing the worker himself (see Figure 23), as if to echo a trying or demanding image of the work.

2.5 PATTERNS IN THE VARIATION OF VIEWS OF WORK.

2.5.1 Variations in Image of Work.

As we have seen in the preceding detailed analyses, similar types of concerns or themes tend to arise in the responses of workers to all four depicted work situations. For example, themes such as health, safety, affiliation, and success; or disease, danger, loneliness, and failure, tend to enter the workers' appraisals of *all* the work situations that were shown to them. The relative salience of these themes, however, varies significantly from situation to situation, presenting a complex picture of the employee view of work — a picture that is perhaps still too complex to form a useful overview.

Nevertheless, very roughly speaking, all these response themes could be grouped and divided into two broad families, namely:

- positive reactions to a work situation,
- negative reactions to a work situation.

And such a grouping exercise, albeit heavy-handed, we have at this point undertaken so as to be able to comparatively demonstrate in a relatively simple and visible manner how the overall tenor of responses varies between the different work-situations.

Accordingly, for the purpose of presenting such an overall view all responses to the work-pictures have been re-classified as either essentially positive (or favourable) in character or essentially negative (or unfavourable) in character. Thanks to the structure of our response format in the questionnaire, this grouping of responses has been able to be performed separately for responses describing:

- the basic mood or affect,
- the primary idea or image,
- and the likely outcome

evoked by each work situation.

From this operation, the relative frequencies of all positive and all negative responses to each work-type, within these three categories, have been calculated. The resulting scores are set out in Table 2. This re-classification or grouping of responses represents a summary of the information earlier presented in Figures 4, 7, 8, 9, 12, 13, 14, 17, 18, 19 and 21.

In a few cases our subjective judgement has had to be used in the grouping of responses — where, for example, the ultimate significance of a response might change according to the frame of reference adopted.* However in these cases we have attempted always to use a frame of reference centred around the immediate meanings, and development, of work itself. Also, to qualify as "positive", responses had to be distinctly so — to convey a distinctly "valued" perception rather than an "adequate" perception. In the very few cases, therefore, where truly neutral responses occur, they have been regarded as "not positive" and therefore classified as negative.

Forcing information into a dichotomous classification can, clearly, present difficulties, but using appropriate criteria we consider the exercise to be worthwhile.

* One example of this would be a response which states that the final outcome of a particular work situation will be that the worker concerned moves to a very different type of work. Although in the context of an *individual's* lifetime of personal development this could well be viewed as a favourable event, in the context of *work* development or work-commitment such a move would be an unfavourable event.

TABLE 2.

SUMMARY TABLE OF POSITIVE/NEGATIVE RESPONSES TO SPECIFIED WORK-SITUATIONS.

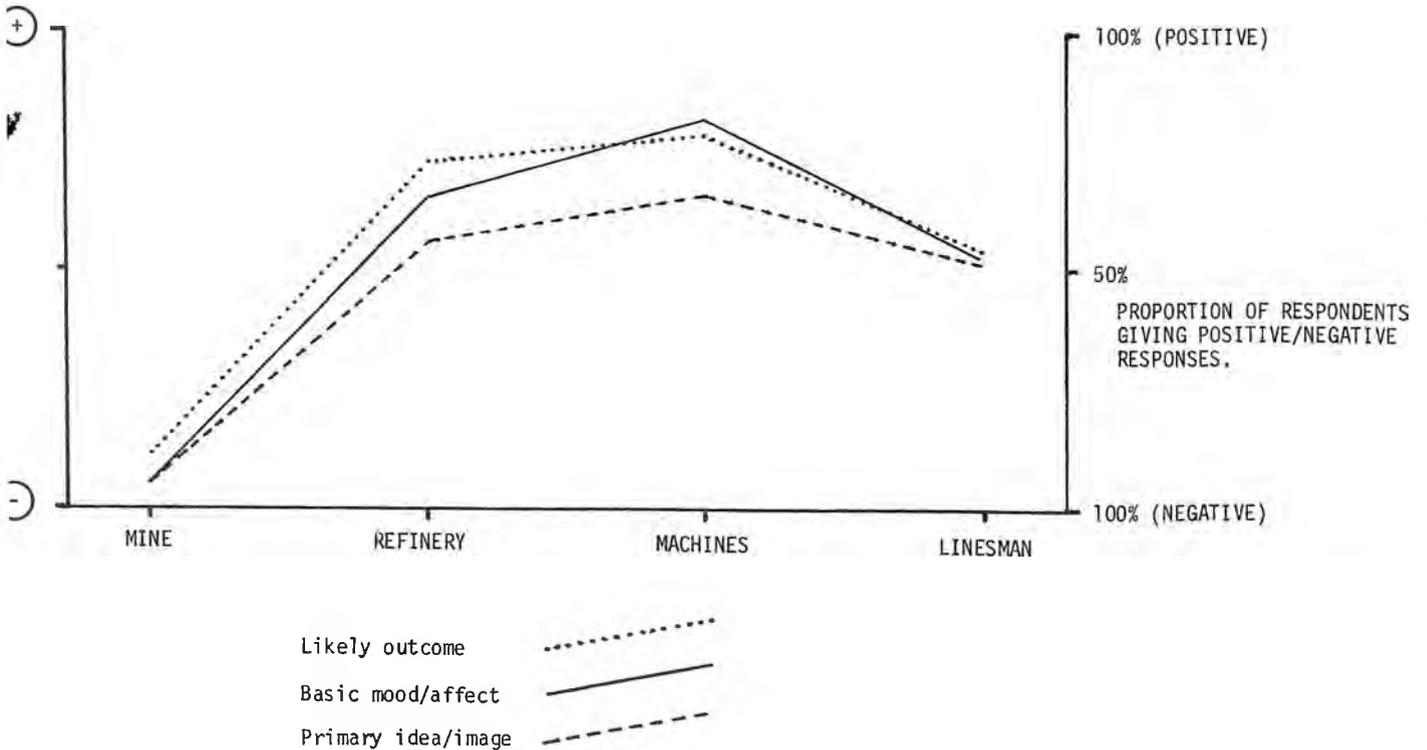
VARIABLE	SITUATION	DERIVATION	% NEGATIVE RESPONSES	% POSITIVE RESPONSES*
Basic mood/affect:	Mineworker	Figure 1	94	6
Basic mood/affect:	Refinery Hand	Figure 5	34	66
Basic mood/affect:	Machine Operator	Figure 10	18	82
Basic mood/affect:	Telephone Linesman	Figure 15	47	53
Primary image/idea:	Mineworker	Figure 1	94	6
Primary image/idea:	Refinery Hand	Figure 6	43	57
Primary image/idea:	Machine Operator	Figure 11	33	67
Primary image/idea:	Telephone Linesman	Figure 16	48	52
Likely outcomes:	Mineworker	Figure 4	88	12
Likely outcomes:	Refinery Hand	Figure 9	26	73
Likely outcomes:	Machine Operator	Figure 14	31	69
Likely outcomes:	Telephone Linesman	Figure 18	46	54

* NOTE: Negative and positive responses total 100%.

FIGURE 22.

VARIATION IN RESPONSES TO SUCCESSIVE WORK SITUATIONS.

(Based on Table 2.)



The relative distributions of positive and negative responses in Table 2 are graphed in Figure 22, which clearly depicts the variations in three types of response — affective, cognitive, and predictive — to the four successive work situations. As the proportion of negative responses and the proportion of positive responses to any one situation necessarily total 100 percent, the scales of both positive and negative response variables are superimposed on the same vertical axis of the graph, and a single point used to indicate the frequency of both response types.

What does this multi-trend graph tell us? First, that the general image of work varies markedly between the different work-types. Among our sample negative images of work predominate overwhelmingly in the case of "minework", positive images of work predominate noticeably in the case of the "Refinery Worker", positive images of work predominate even more so in the case of the "Machine Operator", while negative and positive images of work are about equally represented in the case of the "Telephone Linesman". The graph also tells us that the general image of the different types of work varies *consistently* in terms of the component criteria of assessment — that is, the relative images of the work-types as inferred from affective data are closely confirmed by the relative images as inferred from cognitive or predictive data.

Two further points need to be made in comment on the significance of the summarizing exercise depicted here. Although the graphs in Figure 22 may give the impression of a *relative* assessment of work-types by the respondents, in fact they merely present on the same format quantified "images" of work as assessed by respondents in *absolute* terms. It is we, the investigators, who are in this way making the comparisons; comparative presentation is a device of data assessment used by us. The respondents merely judged each work-type independently and on its own merits — and these curves are the outcome. The variation thereby demonstrated is thus an objective phenomenon of which the respondents are not necessarily conscious.

Correspondingly, it should be noted that this comparative depiction of absolute perceptions of work-types, which is performed to demonstrate variations in responses, resembles neither the "relative popularity" rating of the jobs, which was independently carried out and is described below, nor the generation of new "confidence" variables from the same initial projective data, which is described in Chapter 3. These last two "generalising" procedures are based on quite different principles.

To sum up, then, the apparent "order of repute", *in absolute terms*, of the work-types as inferred from the respondents' detailed, projective (less conscious) evaluations is:

1. "Machine Operator"
2. "Refinery Worker"
3. "Telephone Linesman"
4. "Minework"

As will be seen shortly, this order contrasts with the average *ranking* established later when the respondents were asked to rate all four work-types comparatively in terms of their desirability.

2.5.2 Variations in Perceived Needs of the Worker.

What patterns can be seen in the needs ascribed by our respondents to different types of worker? It will be recalled that in addition to stereotyping different aspects of the *work-types* presented to them, our respondents also expressed what they considered to be the principal *needs* of the depicted workers.

These needs, however, could not be generalised in the same way, nor presented on the same format, as the "images of work" discussed in the preceding section. As subjective constructs of individuals, needs are not "positive" or "negative", but can rather be classified into different types according to their referent. Furthermore, needs in this context are perceptions by the worker,

rather than attributes of the work, and it would be misleading to attempt to express them in the same sorts of terms as work-characteristics. Perceived needs, then, could neither be simply dichotomised nor presented in Figure 22. Our summarization of the perceived needs of the four worker-types is therefore made separately, as follows.

In the great majority of cases the needs expressed by our respondents (i.e. projected by them onto the depicted workers) were work-oriented, and tended to be states, assets, resources or talents relevant to the solving of problems in the work situation. Similar broad "families" of needs, discerned and defined by us as follows, tended to be mentioned in responses to all four work-pictures:

- Personal Needs, Intrinsic to Work Ability
- Personal Needs, Extrinsic to Work Ability
- Pragmatic Assets
- Education

This particular fourfold categorization of needs which was adopted by us was considered by us to be useful and relevant in an examination of work from an industrial commitment and worker-advancement perspective. With these sorts of concerns in mind the motivational implications for the production process of the way in which needs are conceived would be of central interest.

The four need-categories were defined as follows: "Personal Needs" are needs or qualities which will very directly or intimately affect the worker's performance and experience of the work, while "Pragmatic Assets" are more formal adjuncts of the working situation such as training, tools, machines and "hygiene factors". "Intrinsic Personal Needs" are qualities or requirements which the worker himself would bring to bear upon the work, such as courage, intelligence or persistence; while "Extrinsic Personal Needs" are resources or needs of undoubtedly personal significance but which the employer would more likely bring to the work, such as assistance, encouragement, food or

warmth. "Education" is actually a type of Pragmatic Asset, but is given its own category because of its importance as an issue in Black Advancement and its prominence as a common response.

Another reason for categorizing "Education" separately is that it could arguably be linked with either "pragmatic assets" or "personal qualities intrinsic to work ability". Education is not only a qualification, *post hoc*, and hence a type of fixed status, but also a major socializing and acculturating experience in itself, during the time it takes place. In other words, education appears to be primarily a pragmatic asset, but it can be argued that as a process it also diffusely confers highly personal characteristics which are "intrinsic to work ability" — including, for example, a sense of efficacy (as opposed to fatalism), under some circumstances a more autonomous orientation (as opposed to a need for rules or external direction), and a more enhanced self-image. Thus, "education" responses could have been in a direct sense added to "pragmatic assets", or in an indirect sense added to "personal needs intrinsic to work ability". By maintaining "education" as a separate need category we avoid taking a decision which could be misleading either way.

To return to our search for possible patterns in the way needs are ascribed to different types of worker, for the present generalising exercise we have classified and scored all responses in respect of perceived needs into the same fourfold categorization adopted earlier. This categorization caters for virtually all responses encountered, as well as reflecting an empirically recurrent need typology which persists from picture to picture. The results of this general classification are set out comparatively in Table 3 and graphed in Figure 23 (q.v.).

TABLE 3.

SUMMARY TABLE OF PERCEIVED TYPICAL NEEDS OF SPECIFIED WORKERS.

VARIABLE.	WORKER.	DERIVATION.	NEEDS:			
			PERSONAL INTRINSIC.*	PERSONAL EXTRINSIC.*	PRAGMATIC ASSETS	EDUCATION
Typical needs :	Mineworker	Figure 3	75	18	60	3
Typical needs :	Refinery Hand	Figure 8	39	23	49	10
Typical needs :	Machine Operator	Figure 13	32	21	47	15
Typical needs :	Telephone Linesman	Figure 17	37	33	53	17

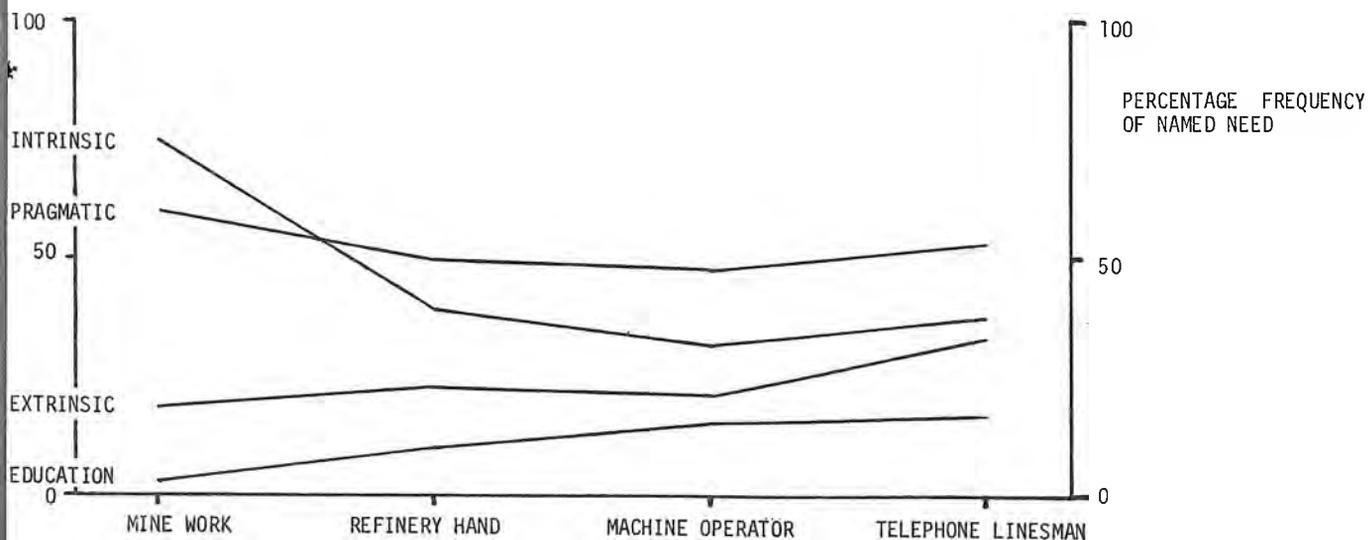
62.

* Note:

- These terms have been abbreviated as follows:
 - Personal needs, intrinsic to work ability : "Personal, intrinsic."
 - Personal needs, extrinsic to work ability : "personal, extrinsic."
- Frequencies of needs mentioned for each type of worker may total more than 100%.

FIGURE 23.

VARIATION IN PERCEIVED TYPICAL NEEDS OF WORKERS.
(Based on Table 3.)



63.

What can be inferred from these figures? First, the curves in Figure 23 show that the *relative* salience of the four need-types, as expressed by our respondents, is remarkably constant from one work situation to the next. More particularly, the *absolute* rate at which the need-types are expressed is also fairly constant from situation to situation. This constancy in rate and in relative salience is indicated by the levelness and the parallellism, respectively, of the curves. The only exception to this pattern is the expressed level of "intrinsic personal needs" in the case of the "mineworker" situation, which achieves a visibly higher-than-average score. However, this apparent anomaly is not surprising. The portion of this score which exceeds the average for the other work types is accounted for almost entirely by extra responses mentioning energy or strength as the foremost need of the "mineworker" — in accordance with the arduous and exhausting image commonly held of this work, a perception which is confined to this work-type. The need for physical endurance is hardly mentioned in the response to other work-types (see Table 4), and were it not for the preoccupying conviction of our respondents that "minework" is debilitating, the uniformity of the curves in Figure 23 would be complete.

TABLE 4.

Frequency of Responses Mentioning ENERGY, STRENGTH, OR STAMINA as a Worker Need, in Four Successive Work Situations.

Work-Situation	"Mine Worker"	"Refinery Hand"	"Machine Operator"	"Telephone Linesman"
Proportion of Sample Responding	46%	7,3%	0	2,3%

To a much lesser but significant degree an expressed need for courage also tended to be confined to the "mineworker", where 8% of respondents cited this as a need.

These findings present us with a marked and revealing contrast. While the image of the *job* varies greatly through the

work-continuum, the imagined *needs* of the corresponding workers appear not to. The fact that in Figure 22 the curves show marked variations from situation to situation, while in Figure 23 the curves are relatively constant (virtually "level") suggests that job-stereotype or job-image is a function of job, essentially, while perceived needs associated with jobs are a function of the respondent type.

This contrast confirms our suggestions made earlier, in sections 2.2, 2.3, and 2.4, that information recovered regarding the "needs of the depicted workers" tells us more about orientations of our respondents *per se* than about the popular image of types of work. To be more specific, it was there suggested that the citing of "personal needs, intrinsic to work ability" by a respondent implied a tacit recognition of the need to take personal responsibility for work and one's own engagement with work — an essentially autonomous approach to work — while in contrast the citing of "personal needs, extrinsic to work ability" signalled a wish for nurturance or assistance in the approach to work, or an abdication of ultimate responsibility for the work — a relatively "dependent" or less committed involvement with work. We might also suggest that an expressed need for "pragmatic assets" could reflect a more experienced approach to work and a realistic understanding of work and organization processes (a more "procedural orientation"), or alternatively an approach to work that is *mediated* by institutional concerns — a "contingent or conditional commitment" to work. Finally, what an expressed need for education would imply about the respondent's outlook is not easy to say; it might possibly reflect a status-based conception of competence in work, or perhaps more likely a realistic, pragmatic and objective appraisal of the work.

It must be emphasised that the relationships just proposed between personal orientations to work and felt needs in the workplace are suggested as tendencies and not hard correlates.

Also, in respect of the data it should be understood that the relative salience of the needs graphed in Figure 23 reflect not a relative weight or "ranking" attached to these need-types by the sample as a whole, not a single opinion shared by a mass of people, but rather the frequencies within the sample of *different types of persons* who are distinguished by the type of need they feel the most.

2.6 RATED POPULARITY OF WORK-TYPES.

Another approach to assessing the image of different work-types was afforded by what was in effect a ranking exercise set up in our questionnaire. This was a short subsidiary exercise which followed the detailed projective examination of the work-types described in the earlier part of this chapter. Immediately after the respondents had completed their stepwise written responses to the work-pictures, in which the work situations had been completely assessed one at a time, they were asked to look, for the first time, at all four work-pictures together and to imagine they had to choose one of those work situations to work in themselves. They were then required to indicate on the questionnaire the job that they would like best, the job they would like second best, and the job they would like least. The format for this exercise is reproduced at the end of Appendix B.

This procedure generated a ranking of the four jobs according to immediate desirability. The rank assigned to each particular job or work-type could therefore vary between 1 and 4 from respondent to respondent.

In order to determine whether some jobs were more often assigned a higher rank than others, and if so to what degree, we have tabulated for each job all the various ranks assigned to it by the respondents, and from these figures calculated the "average rank" of each job. From this tabulation we find that there are indeed differences in the rate at which ranks are assigned to

the different work-pictures. Picture B5, for example, ("Mineworker") is consistently ranked fourth or third in desirability but never first or second. Picture C1 ("Refinery Hand") is very occasionally ranked second, extremely rarely first, more often third or fourth. Pictures D4 and BC1 ("Machine Operator" and "Telephone Linesman") are most often ranked first and second, occasionally third, hardly ever fourth. The results of the average rank calculations are depicted in Figure 24 (q.v.).

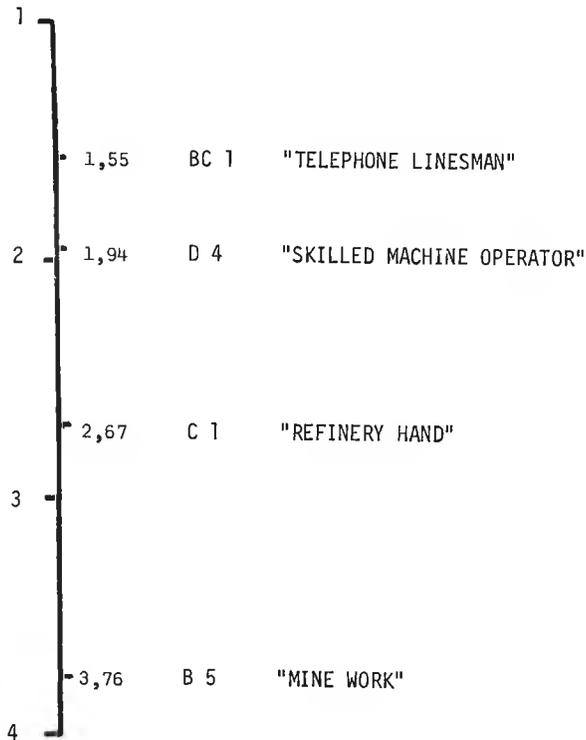
One fact is immediately evident from Figure 24. In contrast to the apparent "order of repute" of the work-types, inferred from absolute assessments in Section 2.5 above (q.v.), the relative order of popularity of the work-types — based, we feel, on a more superficial view of the work-types — is:

1. "Telephone Linesman"
2. "Machine Operator"
3. "Refinery Hand"
4. "Mineworker"

Why do the two ratings of the work-types differ? It seems that the individual choices upon which this latter desirability ranking is based were made according to extrinsic criteria such as status and income, because we have no shortage of information elsewhere (the detailed assessments, and the "CONF" variables) to suggest that the actual job depicted in BC1, "Telephone Linesman", when rated on its own merits is viewed with significantly *more* discomfort and apprehension than the job in picture D4, "Machine Operator". Thus on the one hand job BC1 is very definitely daunting to the respondents, yet on the other hand it is the most wanted job. It appears that in spite of serious misgivings about a form of work when it is considered in detail, people will still pursue it for reasons which are based on broader life-values and interests. It is perhaps an encouraging sign that in respect of work the aspirations of the respondents are in advance of their immediate feelings.

FIGURE 24.

AVERAGE RANK OF THE FOUR JOB-TYPES
AS RANKED BY THE RESPONDENTS IN ORDER OF DESIRABILITY.



CHAPTER 3.SUBJECTIVE DETERMINANTS OF PERCEPTIONS OF WORK.

The relations between the various areas of concern discussed in this report can be diagrammatically represented along the lines of Figure 24.

In terms of the admittedly provisional model represented by this diagram, factors such as "work-commitment", which are experienced as essentially *behavioural* (or as highly specific and conscious opinions), are seen as influenced by *orientation* or *attitude* factors (less conscious) such as confidence or anxiety, which are themselves seen as influenced by idea or *concept* factors such as "image of work". Finally, the derivation of these various mental attributes from the actual objective nature of work or jobs is influenced in some degree by the background — and hence the worldview, outlook and personality — of the individual.

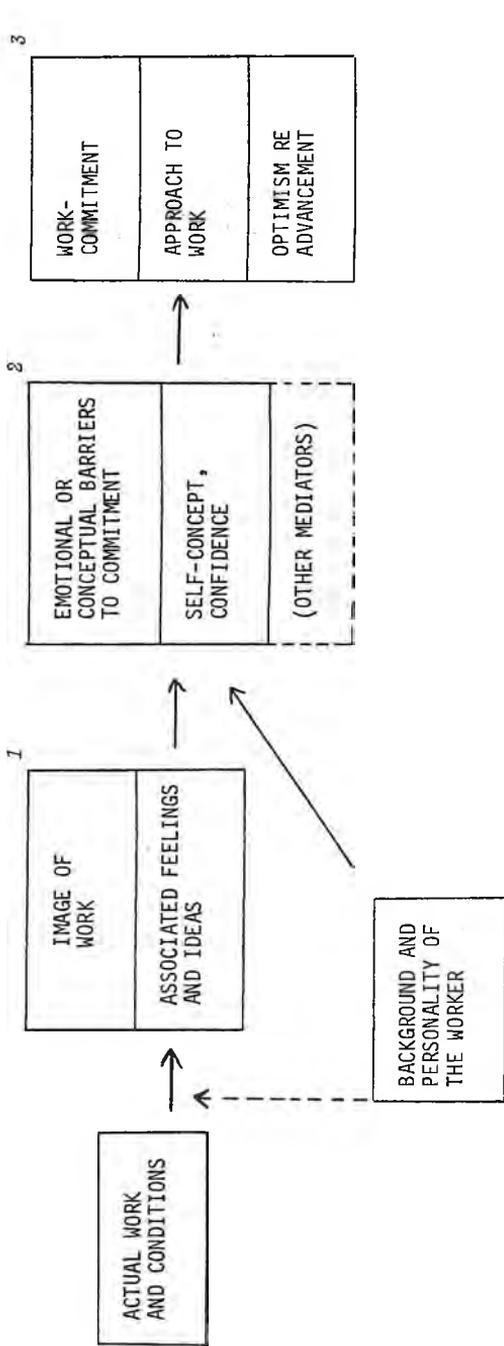
Although the background and personality of the individual may appear to be depicted in this figure as relatively marginal factors, this is not our intention. They are in fact recognized as major influencing factors upon the attitudinal and dispositional potential of the individual. Nor are the earlier factors in the sequence viewed as immutable. A concept factor such as "image of work" can itself be gradually modified by feedback from experience generated by behaviours such as "approach to work."

3.1 NEW CRITERION VARIABLES.

Up to this point in this account we have tended to focus on the objective characteristics of various forms of work. But specifically what sorts of subjective, individually-located, characteristics determine the way work is perceived? More particularly, what sorts of personal characteristics encourage, or compromise, confidence with respect to work, and hence perhaps industrial commitment? Having initially elicited and

FIGURE 25.

SOME FACTORS AFFECTING THE APPROACH TO WORK.



1 "concept factors"

2 "attitude factors", orientation, disposition

3 "behaviour factors", highly specific or conscious attitudes, opinions

described in some detail the reactions of our respondents to various work situations, the second phase of our investigation was to identify possible antecedents or correlates of perceptions of work — in particular, subjective factors which might be influencing whether work is viewed positively or negatively.

For this purpose, a much smaller number of "summary variables" expressing succinctly the respondent's view of each type of work, and doing so in terms of a relevant and useful concept, needed to be generated — in order that they could then be compared with other variables describing aspects of the respondent's background.

This was achieved by holistically reassessing each respondent's total projective response to each work situation so as to assign to it a single score or label according to new and more general criteria. Although more general, the new criteria were carefully defined.

The result of this operation is a new pair of variables describing something akin to confidence — in two specified and particular contexts within the work situation.

The first variable, which could be described as "*Perceived desirability of the work*", represents a scoring of the total response to a depicted job according to the criterion question: "Would the respondent want this job?" For computing purposes this variable was named "IMAG"* to suggest the idea of "Image of work."

* The writer regrets the need, initially imposed by computer facilities, to use mnemonic or abbreviated names for certain variables.

"IMAGB5", for example, names the variable describing "Image held of the work depicted in picture B5". Similarly, "CONFCl" names the variable describing "Future confidence in work depicted in picture Cl".

Further details of the scoring of "IMAG" and "CONF" variables are given in Appendix B.

The second variable, which might be described as "*Optimism with respect to own advancement in the work*", represents a scoring of the response to a depicted job according to the criterion question: "Is the respondent confident of his own ability to progress in this job?" For computer analysis this variable was named "CONF"* to suggest the idea of "Future confidence in work."

As can be seen from these definitions, these two new measures express a factor which is closer to the self-esteem of the respondent, in a specified work context, than to an external "image" of a type of work presented. Essentially both variables, but particularly the latter, are confidence ratings, having been based primarily on the affective component of the respondents' reactions ("IMAG" is confidence with regard to the current job predicament; "CONF", confidence with regard to the outcome of doing such work).

These summary variables are, moreover, based on a *realistic* assessment of the attributes brought by both the worker and the job to the work situation. In real life the perceived opportunities, by a Black individual, for Black advancement in a particular work context will inevitably be some product of both the perceived characteristics of that work *and* the self-image (implying own assumed capabilities) of the individual. It is therefore appropriate for us to extract a context-specific measure of self-esteem or confidence (the context changing from job to job) in a projective simulation of the work situation which evokes the respondent's own assumptions and capabilities. The detailed pictorial evocation of the job, and the indirect projective character of the respondent's evaluation of it encourage an authentic "real life" response, as has been discussed earlier. We feel, then, that our instrument, interpreted with suitable criteria, does tap something very close to the respondent's self-esteem as it would obtain under conditions of work.

* See footnote, preceding page.

In terms of these new perspectives, a clear variety of responses is evident among the men in our sample. Some responses are clearly confident in nature, and others pessimistic, while a third category of equivocal responses can also be fairly clearly discerned. This confirms that the new variables have a significant and usable range. The distributions of responses to the different work situations in terms of these confidence-oriented summary variables have been set out comparatively in Tables 4 and 5, and graphed in Figures 25 and 26. (q.v.).

What interpretation may be placed upon these tables and graphs? In the case of the "IMAG" variables, the frequencies of the "confident" response imply the relative appeal of the different types of work, and it may be noted that the "confident" curve in Figure 25 tends to confirm the impressions established in Figure 23 (q.v.). In both indicators the apparent appeal of work peaks in the case of the "machine-operator", closely followed by the situation of the "refinery hand". Also in emulation of the reactions depicted in Table 23, the appeal of work revealed in Figure 25 tails off in the case of the "telephone linesman". As before, the appeal of "minework" is extremely low.

With the exception of the "mineworker's" situation, the "CONF" variables show a clear majority of confident responses in all types of work. Apparently, a majority of respondents are optimistic about their ability to advance from the depicted "refinery", "machine operator", and "telephone linesman" jobs. At the same time, a sufficient proportion of responses to situations C1, D4 and BC1 are equivocal or negative for us to feel that our sample is adequately representative of both high and low self-esteem, suggesting the valid use of "CONF C1", "CONF D4", and "CONF BC1" in correlation analysis.

In addition, the very negative image of minework established earlier suggests that the apparently very low level of optimism indicated by "IMAG B5" and "CONF B5" is essentially contextual in origin,

TABLE 5:

RELATIVE FREQUENCIES OF VALUES OF VARIABLE "IMAG" THROUGH FOUR SUCCESSIVE WORK SITUATIONS.

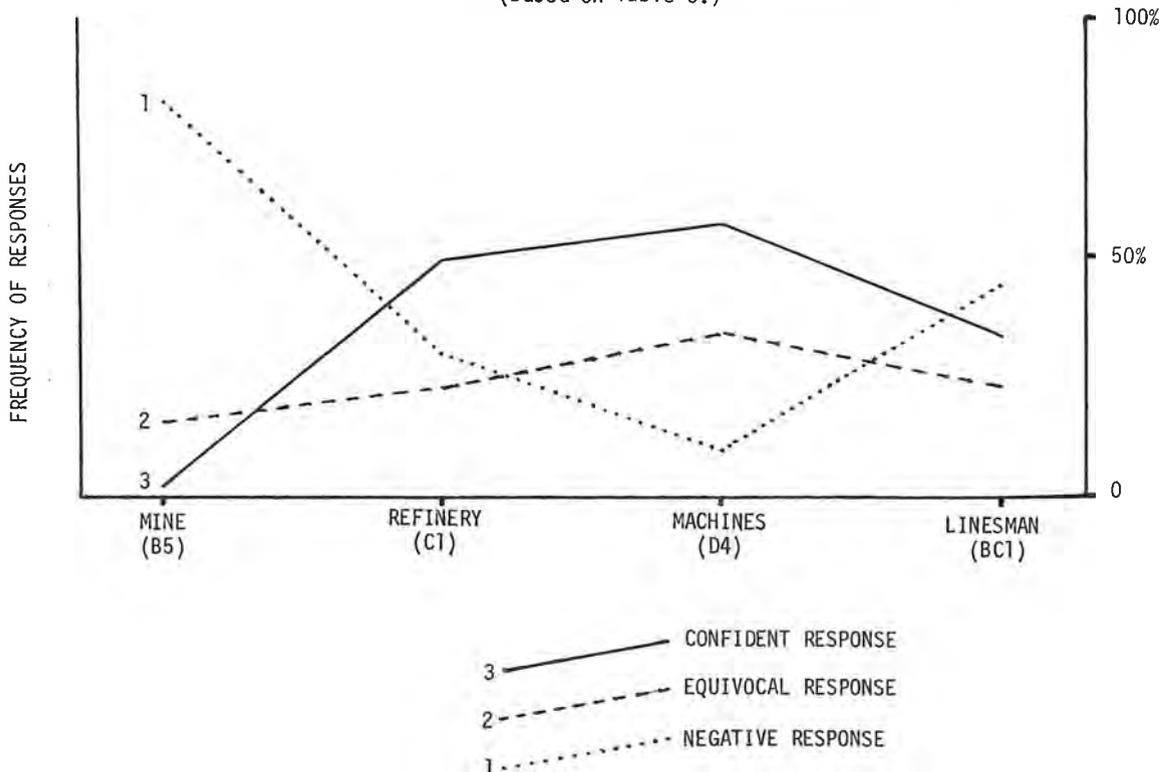
VALUE	IMAGB5	IMAGC1	IMAGD4	IMAGBC1
3 (CONFIDENT)	2%	49%	57%	33%
2 (EQUIVOCAL)	16%	22%	34%	23%
1 (NEGATIVE)	82%	29%	9%	44%
	100	100	100	100

74.

FIGURE 26.

VARIATION OF VALUES OF VARIABLE "IMAG"* THROUGH FOUR SUCCESSIVE WORK SITUATIONS.

(Based on Table 5.)



75.

* Perceived Desirability of the Work, or, Confidence Regarding Immediate Work Situation.

TABLE 6.

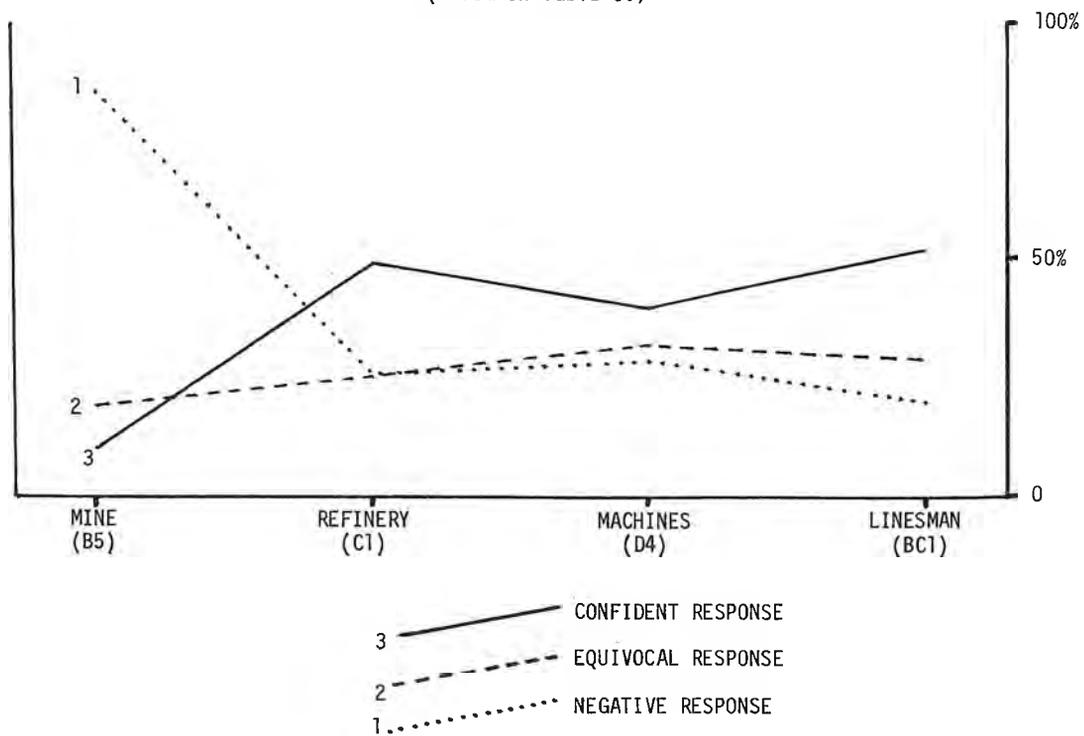
RELATIVE FREQUENCIES OF VALUES OF VARIABLE "CONF" THROUGH FOUR SUCCESSIVE WORK SITUATIONS.

VALUE	CONF B5	CONF C1	CONF D4	CONF BC1
3 (CONFIDENT)	5%	49%	40%	52%
2 (EQUIVOCAL)	9%	25%	32%	29%
1 (NEGATIVE)	86%	26%	28%	20%
	100	100	100	100

76.

FIGURE 27.

VARIATION IN VALUES OF VARIABLE "CONF"* THROUGH FOUR SUCCESSIVE WORK SITUATIONS.
(Based on Table 6.)



77.

* Optimism with respect to Own Advancement in the Work, or, Perceived Prospects for Own Advancement in the Work.

rather than stemming mainly from an intrinsically low self-esteem in the respondents. In other words, we feel that most of the variation in optimism indicated by IMAGB5 and CONFB5 is accounted for by the perceived characteristics of the work, while a far higher proportion, probably the majority of the variation in optimism indicated by "CONFC1", "CONFD4" and "CONFBC1" is accounted for by the self-esteem of the individuals (which we feel is actually quite high in some cases), the work in these contexts being regarded as tolerable, if not desirable, and therefore not significantly compromising the nett optimism experienced by the respondents. If this is so, then the variables derived from situations C1, D4 and BC1 will be the more reliable indicators of self-esteem — again suggesting their use in correlation analysis.

It is therefore proposed to use the "CONF" variables principally as indices of self-esteem, concentrating on those applicable to C1, D4, and above all, BC1.

3.2 POSSIBLE ANTECEDENTS OR PREDICTORS.

Included within the scope of the broader study of which this report describes a part is information about our respondents in respect of a wider range of further variables. This information, some of which has already been referred to in Chapter 1, consists broadly of two types: on the one hand, the social, biographical and demographic characteristics of the men in our sample, and on the other hand, attitudinal and personality data. As some of this information represents factors or variables which we would expect to influence or determine the outlook, and in particular the self-esteem, of individuals in a challenging situation, the opportunity exists for us to observe, by correlation analysis, whether in fact any relationship does exist between these antecedent variables and those which we consider are tapping the self-esteem of the respondents. These possible predictors are reviewed below.

Our selection of certain variables as supposed determinants of self-esteem is based in some cases on known findings arising out of research on populations in the United States, and in other cases on our own consideration of the interactions between socialization, acquisition of culture and identity, personal efficacy, and social transactions.

On this basis, we would expect the available variables which are listed below to act in some degree as determinants or predictors of self-esteem. We hold this expectation, however, with the following reservations:

1. not all the theoretically expected determinants of self-esteem are tested here; only those approximations which happen to be available as measured variables in our program of research.
2. the strength of the relationships, if any, which may be revealed is expected to be very modest, as "IMAG" and "CONF" are but indices, not pure measures, of self-esteem. "IMAG" in particular, is more of a measure of the appeal of specified forms of work than of subjective self-esteem.

On this understanding, then, the factors which we would expect to influence the confidence with which our respondents approach the work situation are as follows.

3.2.1 Attitudinal or Personality Variables.

a. Achievement Orientation.

A composite measure derived from scores on a conventional projective measure of "need for achievement" together with further projective measures of concern for achievement behaviours and for production in employment contexts.

b. Locus of Control : Personal Control Ideology.

A measure of Fatalism-versus-Efficacy in respect of the individual's beliefs about his own personal capacities and

abilities, scored from a multi-item forced-choice scale.

c. Locus of Control : System Modifiability.

A measure of Fatalism-versus-Activism in respect of the individual's beliefs concerning the mutability of systematic barriers and discrimination in society at large, also scored from a multi-item forced-choice scale.

Research in the United States by Coopersmith** has identified a number of fairly clear contributing determinants, and correlates, of self-esteem. Among the findings were that the parents of persons higher in self-esteem tended to expect higher performance from their children, that persons higher in self-esteem tended to set themselves higher personal goals, but also, by way of qualification, that the quality of personal goals set was also compromised by the realistic expectations of the individual. The first two determinants are undoubtedly manifestations of achievement values in the family setting, leading us to expect an association between "achievement orientation" and higher confidence. The third, qualifying, determinant represents, in effect, the intervention of the individual's realism, or efficacy beliefs, in the generation of higher self-esteem. We would therefore expect persons with more *internal* "locus of control" orientations — i.e. persons who realistically believe in their *own* ability to control their lives, and in the ability of society by its own secular process to reduce discrimination, social constraints, and other sources of powerlessness — to likewise be higher in confidence. This factor of conviction, then, we expect to play a significant role in catalysing the genesis of self-esteem.

d. Autonomy Orientation.

A diffuse measure of Autonomous-versus-Authoritarian personality traits, holistically assessed from the individual's responses

** Coopersmith, S. (1967) *The Antecedents of Self-Esteem*. pp. 235 et seq.

to a Thematic Apperception Test, according to a standardized set of criteria.

Further findings of Coopersmith's research were that the parents of persons with higher self-esteem were more tolerant, within fixed limits, and that these parents tended to behave more predictably within the family — in particular, they were not harsh, emotional or power-seeking. By contrast, it is also known from other research that opposite forms of parental behaviour, that is, behaviours which are intolerant and unpredictable, tend to generate authoritarian personality traits in the child. In other words, the same aspects of childrearing tradition account for both low self-esteem and authoritarian dispositions. Furthermore, lower self-esteem can itself be seen as part of the essential syndrome of authoritarian personality traits (Adorno, Frenkel-Brunswik, *et al.*). For these reasons we would expect persons of a more autonomous orientation — i.e. with less authoritarian personality traits — to be higher in self-esteem.

3.2.2 Social or Demographic Variables.

In general these variables are chosen because they represent socializing factors or formative experiences which are influential in shaping the individual's outlook.

e. Parental Occupation.

A variable generated by ranking the occupation of the respondent's father in terms of its socio-economic status.

f. Parental Education.

A variable expressing the quantity of education received by the respondent's father.

g. Home Prosperity.

A variable expressing the degree of poverty or affluence of

the home in which the respondent grew up. (Already referred to at page 7).

The three preceding variables together describe the socio-economic status of the family background of the respondent, a factor which we would expect to affect, via resources and abilities which would act to reduce frustrations or blocks in the life of the subject, the fatalism or locus of control of the respondent. We would also expect higher socio-economic status of parents to be associated with higher parental self-esteem and calmer, more nurturant and more predictable parental behaviour in the home — factors which have been demonstrated (Coopersmith) as encouraging higher self-esteem in the individual.

Later types of socializing factors or experiences which we would expect to affect the outlook and quite possibly the self-esteem of the individual, and about which we have information in respect of our respondents, are:

- the urbanism or modernity of the home area; and in the case of rural persons, their experiences and movements as migrant workers,
- experience of work in factories and manufacturing industry; and in particular, the promotions and seniority attained by the individual,
- educational experiences, routines, and achievements in schools; as well as knowledge and skills acquired.

These three areas of influence are represented respectively by the following three index variables.

h. Residential Status.

A variable referred to earlier (p. 7) which by discriminating between lifelong urban residents, urban immigrants, and

oscillating migrants, measures in effect the quantity of urban experience in the respondent's life, and hence to some extent, indirectly, the degree to which his outlook is "traditional" or "modern".

i. Job Level.

A variable generated by ranking the respondent's present job according to skill, status and seniority.

j. Education.

A variable simply expressing the quantity of formal education received by the respondent.

We would expect a greater exposure to education and to factory experience to enhance an individual's self-esteem — in general, and in the context of skilled work. Exactly how the urban or rural character of a person's background might affect a person's self-esteem in the context of work is not easy to predict. Superficially, we might expect people of rural backgrounds and values to be less confident in an urban-industrial environment, because of the incongruence between the worldviews upon which these two worlds are constructed. However, against this it might be said that people of traditional background receive an upbringing and socialization which is firm and consistent, within a stable environment, which is quite possibly more conducive to a well-founded self-esteem than the relatively mobile, disrupted and anomic early life of their urban contemporaries.

These, then, are the ten discrete themes about which we have accurate information concerning our respondents, and which could arguably affect, via the attitudinal construct of self-esteem or confidence, their approach to work.

3.3 CORRELATES OF CONFIDENCE.

In order to test initially for signs of covariance between our confidence variables and the various predictors hypothesized in the preceding section, Pearson correlation co-efficients were computed for the relationships between these possible predictors and the "IMAG" and "CONF" variables. This test was also applied to the individual items of the three composite attitudinal measures.

A number of significant relationships emerge, which are set out in the correlation matrices in Tables 7 and 8. In the matrices the predictor variables appear in a row along the horizontal axis, and the various confidence variables along the vertical axis. The values of R, the Pearson correlation co-efficient, and p, the probability, are indicated in the upper and lower half of each cell respectively. The strength of the significant relationships is not very great but virtually all such relationships occur in the directions which we would expect, a fact which enhances their face value.

The observed relationships in Table 7 suggest that the *perceived desirability or image of work* is associated significantly with:

System Modifiability Beliefs
 Autonomy/Authoritarian Orientation
 Father's Education and
 Own Education

and that *confidence with regard to the prospects for one's own advancement in the work* is likewise associated significantly with:

Father's Occupation
 Achievement Orientation and
 Own Education.

TABLE 7.

PEARSON CORRELATION COEFFICIENTS (R) FOR RELATIONSHIPS BETWEEN "IMAG" AND "CONF" VARIABLES AND HYPOTHESIZED ATTITUDINAL AND BIOGRAPHICAL PREDICTOR VARIABLES.

	TATFH0L	LOCUSPC	LOCUSSM	ACHOR	PAROCC	PARED	HOMEPRO	RESTAT	JOBLEVEL	EDUCAT
IMAGB5			-.18 / .07					.19 / .07		.25 / .02
IMAGC1					.21 / .05		.15 / .09			
IMAGD4									-.15 / .10	-.14 / .10
IMAGBC1	.22 / .02		-.24 / .01							.14 / .10
CONFB5										
CONFC1										
CONFD4										-.18 / .06
CONFBC1				.20 / .03	-.36 / .00					

NOTE: — See text and Tables 9 and 10 for explanation of variables and names.

— Values: Upper half of cell indicates Pearson Correlation Coefficient, R; lower half indicates Probability, p.

— Relationships with a probability of .05 or less are indicated in heavy type.

— Relationships with a probability between .10 and .05 are indicated in light type.

— Relationships with a probability of more than .10 are not indicated.

TABLE 8.

PEARSON CORRELATION COEFFICIENTS (R) FOR RELATIONSHIPS BETWEEN "IMAG" AND "CONF" VARIABLES AND INDIVIDUAL ITEMS OF ATTITUDINAL PREDICTOR VARIABLES.

	LOCUSPCA	LOCUSPCC	LOCUSPCE	LOCUSPCG	LOCUSPCI	LOCUSSMB	LOCUSSMD	LOCUSSMF	WORCOMA	WORCOMH	WORCOMI
IMAGB5				.20 . .05			-.19 . .06		.21 . .04		
IMAGC1	-.16 . .08							-.18 . .05			
IMAGD4	.19 . .05		-.14 . .10				-.16 . .08				.19 . .05
IMAGBC1							-.26 . .01				
CONF B5					-.28 . .02						
CONF C1					-.14 . .10		-.15 . .09	-.16 . .08			
CONF D4	-.17 . .07			.14 . .10							
CONFBC1					.17 . .05				.23 . .02	.14 . .09	.13 . .10

86.

- NOTE: — See text and Tables 9 and 10 for explanation of variables and names.
 — Values: Upper half of cell indicates Pearson Correlation Coefficient R; lower half indicates Probability, p.
 — Relationships with a probability of .05 or less are indicated in heavy type.
 Relationships with a probability between .10 and .05 are indicated in light type.
 Relationships with a probability of more than .10 are not indicated.

MEMONIC	DESCRIPTION
IMAGB5	Image or Appeal of Work B5 ("Mine Worker")
IMAGC1	Image or Appeal of Work C1 ("Refinery Hand")
IMAGD4	Image or Appeal of Work D4 ("Machine Operator")
IMAGBC1	Image or Appeal of Work BC1 ("Telephone Linesman")
CONF B5	Perceived Prospects for Own Advancement in Work B5 ("Mine Worker")
CONF C1	Perceived Prospects for Own Advancement in Work C1 ("Refinery Hand")
CONF D4	Perceived Prospects for Own Advancement in Work D4 ("Machine Operator")
CONFBC1	Perceived Prospects for Own Advancement in Work BC1 ("Telephone Linesman") or, Response to Overt Advancement Challenge

TABLE 9.

EXPLANATION OF "IMAG" AND "CONF" VARIABLE NAMES.

87.

TABLE 10.EXPLANATION OF ABBREVIATED DEMOGRAPHIC AND
PSYCHOLOGICAL VARIABLE NAMES.

<u>MNEMONIC</u>	<u>DESCRIPTION</u>
PAROCC	Father's Occupation
PARED	Father's Education
HOMEPRO	Home Prosperity
RESTAT	Residential Status and Migration
JOBLEVEL	Level/Status/Seniority of Job/Occupation
EDUCAT	Quantity of Education
TATFHOL	Autonomy/Authoritarian Orientation
LOCUSPC	Locus of Control : Personal Control Ideology
LOCUSSM	Locus of Control : System Modifiability Beliefs
ACHOR	Achievement Orientation
LOCUSPCA	LOCUSPC Scale : Item A
LOCUSPCC	C
LOCUSPCE	E
LOCUSPCG	G
LOCUSPCI	I
LOCUSSMB	LOCUSSM Scale : Item B
LOCUSSMD	D
LOCUSSMF	F
WORCOMA	ACHOR variable : component variable A
WORCOMH	H
WORCOMI	I

The more prominent of these correlations are now examined more closely, focussing first on attitudes concerning the likelihood of self-advancement in work.

Table 11 illustrates a cross-tabulation of varying occupation of the respondent's father (classified according to prestige) against the respondent's perceived prospects for advancement in the most challenging work, situation BCl. A clear contrast can be seen in the distributions. Persons with fathers of lower socio-economic status are much better represented among those feeling pessimistic about advancement prospects than among those feeling optimistic. Better-than-average representation of persons with high-s.e.s fathers occurs only among optimists, with the converse characterising the two other types of response. This finding indicates that higher confidence, or positive perception of the prospects for advancement, is associated with higher socio-economic status of father.

The achievement orientation of the respondents, compositely scored from various sources within our questionnaire, varies quite markedly within our sample. A dichotomised distribution of high and low achievement orientation scores is cross-tabulated in Table 12 against perception of advancement prospects in work situation BCl. Signs of the correlation are evident. Persons with a more pronounced achievement orientation are better represented among those who are optimistic about advancement than among those who are pessimistic or among the sample as a whole. Pessimists and equivocals tend to exhibit lower achievement orientation. Among these respondents, then, higher confidence or positive perception of the prospects for advancement is associated with higher achievement orientation.

Table 13 illustrates the distribution of varying system modifiability beliefs among our sample, and cross-tabulates this variable against the perceived desirability of work situation BCl.

TABLE 11.

PERCEIVED ADVANCEMENT PROSPECTS IN CHALLENGING WORK (BC1) BY FATHER'S OCCUPATION.

PERCEPTION OF ADVANCEMENT PROSPECTS	OCCUPATION OF RESPONDENT'S FATHER		
	HIGH S.E.S.	LOW S.E.S.	
% Pessimistic	12	88	100
% Equivocal	28	72	100
% Optimistic	55	45	100
% All cases	38	62	100

Pearson's $r = -.36$ $p = .00$

Chi-square = 11,093 d.f. = 2 $p = .00$

C = ,34

V = ,36

Tau C = -.37 $p = .00$

Somers' D = -.39

TABLE 12.

PERCEIVED ADVANCEMENT PROSPECTS IN CHALLENGING WORK (BC1) BY ACHIEVEMENT ORIENTATION.

PERCEPTION OF ADVANCEMENT PROSPECTS	RESPONDENT'S ACHIEVEMENT ORIENTATION		
	LOW	HIGH	
% Pessimistic	77	23	100
% Equivocal	72	28	100
% Optimistic	53	47	100
% All cases	63	37	100

Pearson's $r = .20$ $p = .03$

Chi-square = 4,004 d.f. = 2 $p = .13$

C = ,21

V = ,21

Tau C = ,21 $p = .03$

Somers' D = ,23

TABLE 13.

PERCEIVED DESIRABILITY OF CHALLENGING WORK (BCI) BY SYSTEM MODIFIABILITY BELIEFS.

PERCEPTION OF THE WORK	LOCUS OF CONTROL : SYSTEM MODIFIABILITY BELIEFS			
	INTERNAL/ HIGH	INSTRUMENTAL LOW	EXTERNAL/ LOW	FATALISTIC HIGH
% Negative	18	47	29	6
% Neutral	40	40	20	0
% Positive	38	45	17	0
% All cases	30	45	23	2

Pearson's $r = -.24$ $p = .01$

Chi-square = 6,803 d.f. = 6 $p = .34^*$

$C = .27$

$V = .20$

Tau C = $-.20$ $p = .02$

Somers' D = $-.20$

* Significance of the chi-square statistic could be improved by merging all "external/fatalistic" responses into a single category.

Appendix C describes the instrument used to measure the system modifiability variable, which essentially differentiates persons who have faith in the ability of public opinion to influence the ambient socio-political dispensation, and social process at large, from those who do not. The table shows that a more fatalistic outlook is commoner among persons with negative perceptions of the work than among those who view the work neutrally or positively. This is a modest indication that a perception of this work situation as desirable, or higher confidence in response to this work-situation, is associated with instrumental system modifiability beliefs — that is, with an "internal locus of control" orientation in respect of public life.

In Table 14 personality traits varying along the authoritarian- vs- autonomous dimension are cross-tabulated against the perceived desirability of work situation BCl. Respondents were classified by a psychologist into those showing a high incidence of authoritarian traits, those with a lower incidence of such traits, and a small minority actually exhibiting autonomy traits, as evident from thematic analysis of their responses to a projective test designed for this purpose. As can be seen from the table, in the sub-sample of respondents who view the work positively, the representation of persons with autonomy traits is higher, and the representation of persons with marked authoritarian traits is lower, than in the group who view the work negatively. In other words, more positive responses to this type of work tend to be associated with more autonomous personality formations.

Although the findings just outlined all confirm theoretical expectations, the indications are not particularly strong. The measures of association derived from each of the cross-tabulations do not attain high values, nor are their probabilities very significant in some cases. To some degree this is probably explained by methodological factors compromising the precision and "hardness" of the data and analysis, such as:

TABLE 14.

PERCEIVED DESIRABILITY OF CHALLENGING WORK (BCI) BY AUTONOMY/AUTHORITARIAN ORIENTATION.

PERCEPTION OF THE WORK	SALIENCE OF AUTHORITARIAN TRAITS		
	HIGH	LOW	
% Negative	79	16	5
% Neutral	75	15	10
% Positive	57	25	18
% All cases	71	19	10

Pearson's $r = .22$ $p = .02$

Chi-square = 4,507 d.f. = 4 $p = .34$

C = .22

V = .16

Tau B = .19 $p = .03$

Somers' D = .23

- inferential, rather than direct, measurement of most variables,
- the difficulty of accurate assessment of respondents under fieldwork conditions, particularly in respect of psychological variables,
- limited sample size,
- the use in some variables of unnecessarily detailed, and therefore numerous, response categories.

Nevertheless, we find convincing indications that committed, forward-looking and optimistic orientations to challenging skilled work are more likely to be encountered in persons who:

- come from parents and presumably homes of higher socio-economic status,
- exhibit more achievement orientation,
- believe in the possibility of progressive social change,
- manifest less authoritarian and more autonomous personality characteristics.

Such persons tend to engage more readily with challenging skilled work, and rate more highly their own ability to advance in it.

3.4 MULTIPLE INFLUENCES UPON CONFIDENCE.

In a further examination of the influence of the proposed predictor factors upon responses to work, multiple regressions of the series of predictor variables upon individual "IMAG" and "CONF" variables were carried out. The regression procedure

gives an indication of the relative influence, if any, of stipulated "predictor" variables upon a given dependent variable. More specifically, by performing a series of partial correlations which take into account possible confounding relationships among the group of predictors themselves, the procedure is able to indicate for each predictor the quantity of the influence which it independently exerts upon the dependent. The resulting discrete values can then be ranked independently or added to show the degree of explanation achieved by a complex hypothesis.

The relative influences, as indicated by multiple regressions, of the ten hypothesized predictor variables upon our "IMAG" and "CONF" variables are shown in Tables 16 and 17. For each dependent variable the predictors are ranked in order of influence, and the degree of influence indicated. The total apparent influence of the available predictors upon each dependent is summarized in Table 15.

TABLE 15.

MAXIMUM PERCENTAGE VARIANCE (r^2) OF DEPENDENT "IMAG" AND "CONF" VARIABLES EXPLAINED BY ALL TEN PREDICTOR VARIABLES, AS INDICATED BY MULTIPLE REGRESSION ANALYSIS.

DEPENDENT VARIABLE *	IMAGC1	IMAGD4	IMAGBC1	CONFC1	CONFD4	CONFBC1
% VARIANCE EXPLAINED	11,0	10,5	22,3	6,5	6,3	24,0

* For clarification of variable names see Table 9.

TABLE 16.

CUMULATIVE AND ABSOLUTE PERCENTAGES OF VARIANCE OF THREE "IMAG" VARIABLES EXPLAINED BY HYPOTHESIZED PREDICTORS, AS INDICATED BY MULTIPLE REGRESSIONS (PREDICTORS RANKED IN ORDER OF INFLUENCE).

Predictor	% Variance of IMAGC1 explained (r^2):		% Variance of IMAGD4 explained (r^2):		% Variance of IMAGBC1 explained (r^2):	
	Absolute	Cumulative	Absolute	Cumulative	Absolute	Cumulative
Father's Education	3,9	3,9	Education	2,7	System Modifiability	9,8
Home Prosperity	5,1	1,2	Father's Education	5,2	Beliefs	9,8
Father's Occupation	6,2	1,1	Job Level	6,9	Autonomy	15,6
Locus of Control (Personal)	7,3	1,1	System Modifiability	8,3	Home Prosperity	17,5
System Modifiability	8,4	1,1	Beliefs	1,4	Education	18,8
Residential Status and Migration	9,2	0,8	Residential Status and Migration	9,6	Father's Occupation	19,9
Education	10,0	0,8	Achievement	10,2	Achievement	20,9
Autonomy	10,7	0,7	Orientation	10,4	Orientation	21,8
Orientation	10,9	0,2	Father's Occupation	10,5	Locus of Control (Personal)	22,2
Job Level	11,0	0,1	Locus of Control (Personal)	10,5	Father's Education	22,3
Achievement			Autonomy	10,5	Residential Status and Migration	22,3
Orientation			Orientation	10,5	Job Level	22,3
			Home Prosperity	10,5		0,0

TABLE 17.

CUMULATIVE AND ABSOLUTE PERCENTAGES OF VARIANCE OF THREE "CONF" VARIABLES EXPLAINED BY HYPOTHESIZED PREDICTORS, AS INDICATED BY MULTIPLE REGRESSIONS (PREDICTORS RANKED IN ORDER OF INFLUENCE).

Predictor	% Variance of CONF1 explained (r^2): Cumulative Absolute	Predictor	% Variance of CONF4 explained (r^2): Cumulative Absolute	Predictor	% Variance of CONFBC1 explained (r^2): Cumulative Absolute
Education	3,2	Job Level	1,9	Father's Occupation	12,7
Father's Occupation	4,0	Residential Status and Migration	3,6	Achievement Orientation	19,4
Residential Status and Migration	4,6	Father's Education	4,4	Education	22,0
Father's Education	5,2	Education	5,2	System Modifiability Beliefs	22,8
Autonomy Orientation	5,7	System Modifiability Beliefs	5,8	Home Prosperity	23,2
System Modifiability Beliefs	6,2	Father's Occupation	6,1	Locus of Control (Personal)	23,5
Job Level	6,4	Autonomy Orientation	6,2	Autonomy Orientation	23,7
Home Prosperity	6,5	Achievement Orientation	6,3	Father's Education	23,9
Achievement Orientation	6,5	Home Prosperity	6,3	Job Level	24,0
Locus of Control (Personal)		Locus of Control (Personal)		Residential Status and Migration	24,0
					0,0

To digress briefly, it will be noticed that the dependent variables which measure reactions to the work situation B5 ("mine work") have not been included in this analysis. They are omitted because we have indications that these particular variables (IMAGB5 and CONFB5) are not strictly comparable with the other measures of respondent reactions to the work situations. An examination of the intercorrelations among the IMAG and CONF groups of variables (Tables 18 and 19) shows that those derived from situation B5 vary inconsistently with the others — they do not appear to be part of the same series of indices. Almost certainly the explanation is that because of the almost universally adverse reactions to the "mine work" situation — demonstrated in detailed analysis of responses in Chapter 2 — IMAG and CONF variables derived from that situation are measures of repulsion and pessimism with regard to the work, rather than attraction and optimism. These former reactions, and the factors influencing them, are not strictly the opposite of the latter ones, with the consequence that "IMAGB5" and "CONFB5" are qualitatively different variables from the other derived indices. The latter group, however, show signs of validly tapping the same orientations in the respondents, and it is these confidence or self-esteem orientations which primarily interest us.

What can we conclude about the collective effects of personal social and psychological factors upon these confidence orientations in the workplace? Although the evidence is statistically modest there seems little doubt that the favour or disfavour with which modern occupational work is regarded, among this sample, is a product not only of particular characteristics of the work, but also of certain characteristics of the worker. Some specifics of this influence are evident in the results of the regressions.

TABLE 18.INTERCORRELATIONS OF "IMAG" VARIABLES.

IMAGB5	IMAGC1	IMAGD4	IMAGBC1	
1.00 *	.00	.16	.14	IMAGB5
.00	.49	.06	.09	
	1.00	.42	.14	IMAGC1
	.00	.00	.09	
		1.00	.23	IMAGD4
		.00	.01	
			1.00	IMAGBC1
			.00	

INFERRED RANKING OF VARIABLES IN ORDER OF MUTUAL CONSISTENCY:

IMAGD4

IMAGC1

IMAGBC1

(IMAGB5 inconsistent)

* NOTE: Upper figures indicate correlation coefficient, r.
Lower figures indicate probability, p.

TABLE 19.

INTERCORRELATIONS OF "CONF" VARIABLES.

CONF5	CONF1	CONF4	CONFBC1	
1.00*	-.03	-.14	.06	CONF5
.00	.39	.09	.30	
	1.00	.45	.41	CONF1
	.00	.00	.00	
		1.00	.40	CONF4
		.00	.00	
			1.00	CONFBC1
			.00	

INFERRED RANKING OF VARIABLES IN ORDER OF MUTUAL CONSISTENCY:

CONF4
 CONF1
 CONFBC1

(CONF5 inconsistent)

*NOTE: Upper figures indicate correlation coefficient, r.
 Lower figures indicate probability, p.

The values of r^2 in Tables 16 and 17 are for the most part modest, but in the case of the last work situation in the continuum — which was intended by us to represent the critical "advancement predicament", and the responses to which were therefore of particular interest — almost a quarter of the variance in the orientations to this work is explained by the hypothesized predictors. This is a sizeable proportion, and the bulk of it, both in the case of the direct appeal of the work and of the self-advancement prospects assessed, is accounted for by small groups of three or four factors. It is not the same three or four factors in both cases, however, and this fact will be returned to shortly. Nevertheless, small numbers of factors appear to explain a quantity of variance that is considerable, particularly in view of the modest scope of the study and the experimental nature of the instruments.

The *ordering* of the predictors in the tables according to their relative influence is not particularly consistent, but in spite of this some patterns can be detected. Moving through the work continuum, i.e. from work C1 through work BC1 we can see that the relative weight of attitudinal factors and of demographic factors shifts. Attitudinal variables, and in particular motivational variables, show a more prominent influence upon responses to the more advanced and challenging work. For example, *system modifiability beliefs* and *autonomy orientation* influence assessments of the appeal of work BC1 far more than they do for the other types of work. Similarly, *achievement orientation* influences assessments of future prospects much more in the case of work BC1 than in the cases of the other types of work. In a sense these trends confirm an indication reported earlier (p. 52), that many of the detailed responses to the final, challenging work situation conveyed a recognition that formal qualifications alone were not enough for the aspirant worker — other intangible and personal factors were commonly mentioned as important needs. Most of these were colloquial expressions of personality or attitudinal factors comparable to those being discussed here. Individually-located,

or psychological, characteristics or criteria, then, are apparently decisive in the emergence of "advancement orientations", although other conditions are obviously also necessary. The surprising exception to this pattern is *personal locus of control* (LOCUS-PC) or personal efficacy, which shows a very low or non-existent influence upon responses to all the given work situations. In contrast, perhaps the most consistently influential associate of positive orientations to work in all the given contexts, albeit to a modest degree, is *education*. As has been argued earlier, the education variable represents not only a demographic/social characteristic but also by implication a type of global personality characteristic.

The priority of the factors influencing responses to work changes not only with the type of work being considered but also with the type of objective that is demanded within a given work context — in this case, adopting the work on the one hand, and progressing in it on the other. The effects of this latter shift upon priorities is examined in Table 20, which compares the relative influence of factors determining the perceived appeal of the work with the relative influence of those same factors as they determine the perceived advancement prospects, in work situation BCl. In effect this table contrasts the principal antecedents of an attitude of engagement with work, with the principal antecedents of an attitude of advancement in work — concentrating on the work type which was earlier termed the situation of the "advancement challenge". The ranking illustrated in the table is purely diagrammatic, and does not reflect actual quantities of variance explained by the listed factors. Nevertheless the lines connecting the same factors as they appear in the two rankings demonstrate the shifts in priority.

From an examination of Table 20 the suggested predictor variables can be classified into three groups:

TABLE 20.

CONTRAST IN RANKING OF PREDICTOR VARIABLES ACCORDING TO QUANTITY OF VARIANCE THEY EXPLAIN IN APPEAL, AND IN PERCEIVED ADVANCEMENT PROSPECTS, OF THE MOST CHALLENGING WORK SITUATION (BC1)

% Variance* explained	ORDER OF INFLUENCE OF PREDICTORS UPON APPEAL (IMAGBC1)	ORDER OF INFLUENCE OF PREDICTORS UPON PERCEIVED ADVANCEMENT PROSPECTS (CONFBC1)	% Variance* explained
10	SYSTEM MODIFIABILITY	FATHER'S OCCUPATION	13
6	AUTONOMY ORIENTATION	ACHIEVEMENT ORIENTATION	7
2	HOME PROSPERITY	EDUCATION	3
1	EDUCATION	SYSTEM MODIFIABILITY	1
1	FATHER'S OCCUPATION	HOME PROSPERITY	0
1	ACHIEVEMENT ORIENTATION	LOCUS OF CONTROL	0
1	LOCUS OF CONTROL	AUTONOMY ORIENTATION	0
0	FATHER'S EDUCATION	FATHER'S EDUCATION	0
0	RESIDENTIAL STATUS AND MIGRATION	JOB LEVEL	0
0	JOB LEVEL	RESIDENTIAL STATUS AND MIGRATION	0

* rounded to nearest 1%.

- I. Factors which influence how the work itself is perceived, in particular its appeal.
 - SYSTEM MODIFIABILITY BELIEFS
 - AUTONOMY ORIENTATION
 - HOME PROSPERITY
 - (Education)

- II. Factors which influence how well the prospects for advancement in the work are perceived.
 - FATHER'S OCCUPATION
 - ACHIEVEMENT ORIENTATION
 - EDUCATION
 - (System Modifiability Beliefs)

- III. Factors which have very little or no influence upon perceptions of either aspect of the work.
 - PERSONAL LOCUS OF CONTROL
 - FATHER'S EDUCATION
 - RESIDENTIAL STATUS AND MIGRATION
 - JOB LEVEL

We have indicated earlier that psychological characteristics of the individual come increasingly into play in explaining the adoption of "advancement orientations" toward the more challenging type of work. This is a relative increase, however. In absolute terms, other necessary but apparently not sufficient characteristics still loom large. For example, in the case of the work situation BCl we have just found that an individual's favourable assessment for self-advancement is strongly controlled by his possession of what we suggest could be called "advancement technique" — a type of know-how and experience. We are referring here to the factors "Father's occupation" and "Education". A person with a father of higher occupation is more likely to be familiar with (and believe in) job mobility. Similarly, those with higher education have by virtue of it, *inter alia*, a type of schooling in the art of advancement. What we find, in effect, is that those with the most confidence in their own advancement prospects are not only those

with a certain necessary drive, but those who also know *how* to advance. This latter "advancement know-how" factor very much resembles the factor termed "understanding production" by Inkeles and Smith, who found it to be a significant component of Individual Modernity — a personal quality or characteristic constituting both an aptitude for, and a derivative of, factory work. The apparent influence upon advancement aspirations of this "advancement technique" factor — if we are conceiving it accurately — confirms the notion that education and factory work are indeed "schools in modernity" (Inkeles and Smith) and that school experience incorporates useful and functional models of organizational behaviour.

3.5 CONSTRAINTS UPON THE SCOPE OF THE INVESTIGATION.

Unfortunately, limitations on the scope of our investigation imposed by the adopted research methodology prevent us from taking account of the direct effects of organization contingencies upon advancement orientations. This is a work study rather than an organization study or economic study. As such, it focusses on individually-located (psychological, phenomenological) elements of the work situation rather than on group phenomena. It looks at the psychology and technology of the work situation rather than its sociology. Correspondingly, the context within which reactions to employment are examined, and in terms of which appropriate questionnaire stimuli are directed at respondents, is limited to the immediate workplace, and does not take into account the systems of forces and factors outside it. Factors external to the work situation are considered only insofar as they affect the outlook or worldview of workers, not the conditions or co-ordination of work. Consequently, systematic *in situ* investigation of the effects of the social, transactional and organizational characteristics of the employment setting upon advancement orientations and advancement behaviours would be the logical complement to a study of this kind. Also required is investigation of the relationship between realistic advancement orientations, as assessed by the type of projective instruments used here, and actual advancement behaviours.

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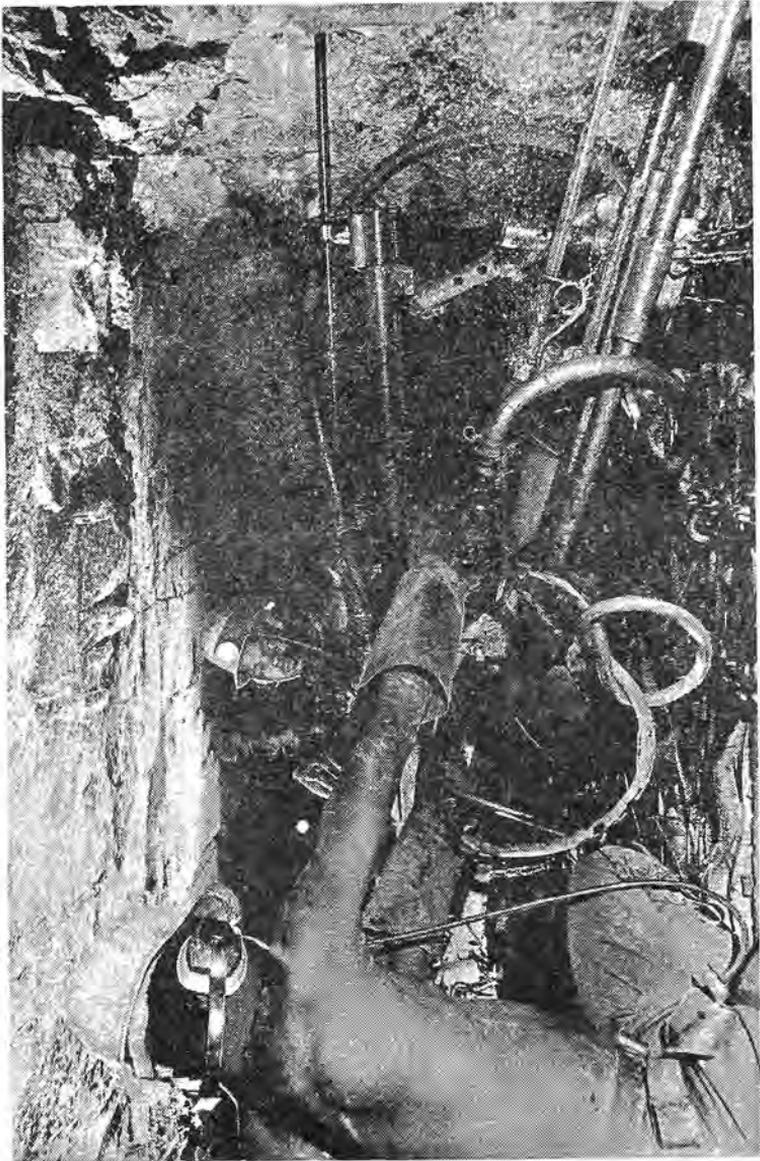
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APPENDIX A.

WORK PICTURES AND ASSOCIATED RESPONSE.
FORMATS AS USED IN QUESTIONNAIRE.



B5

LOOK CAREFULLY AT PICTURE NUMBER B 5

Then answer the following questions, as quickly as you can.

a. *What is happening here? What are these people doing?*

b. *In just a few words, how would you describe this kind of work?*

c. *As you see them now, how are these people feeling?*

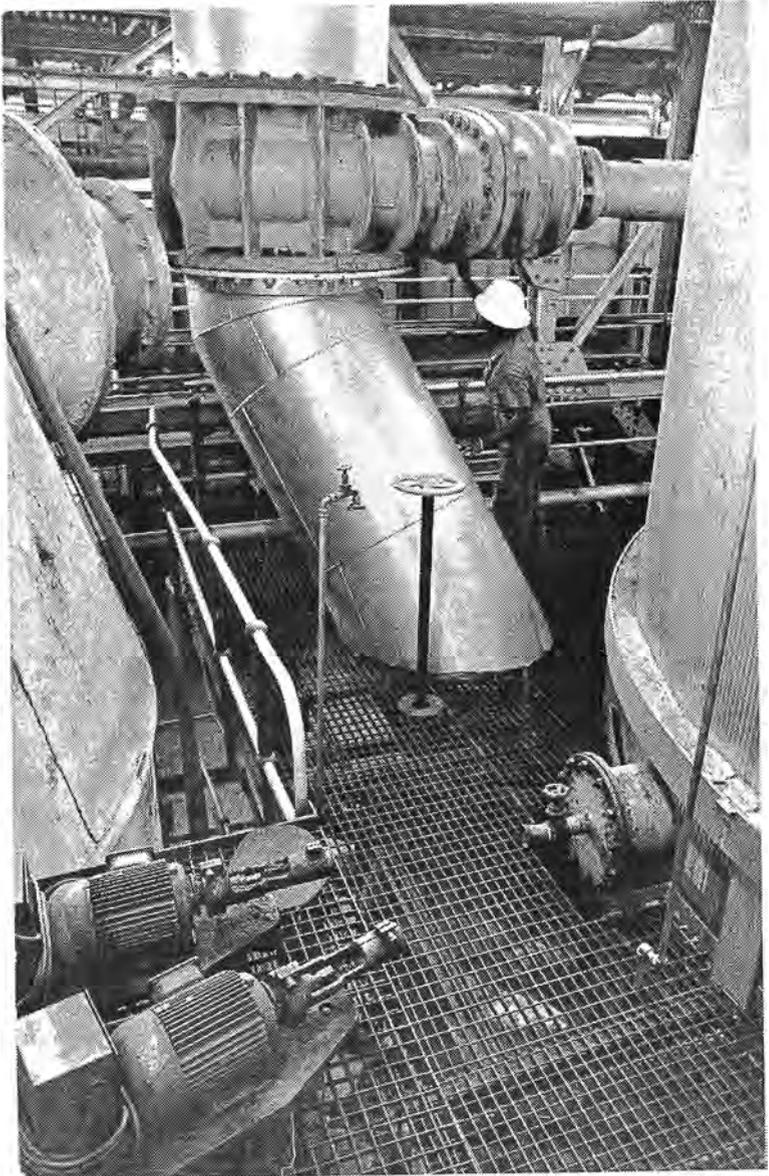
d. *What are these people thinking?*

e. *Why are they thinking this?*

f. *What kind of people usually do this work?*

g. *To do this kind of work, what do these people need most?*

h. *Usually, what are the effects of this kind of work on people who do it?*



LOOK CAREFULLY AT PICTURE NUMBER C 1

Then answer the following questions, as quickly as you can.

a. *What is happening here? What is this person doing?*

b. *What kind of place is this?*

c. *As you see him now, how is this person feeling?*

d. *What is this person thinking?*

e. *Why is he thinking this?*

f. *How does this person feel about working alone?*

g. *To do this kind of work, what does this person need most?*

h. *In five years' time, what work will this person be doing?*



LOOK CAREFULLY AT PICTURE NUMBER D 4

Then answer the following questions, as quickly as you can.

a. *What is happening here? What is this person doing?*

b. *In just a few words, how would you describe this kind of work?*

c. *As you see him now, how is this person feeling?*

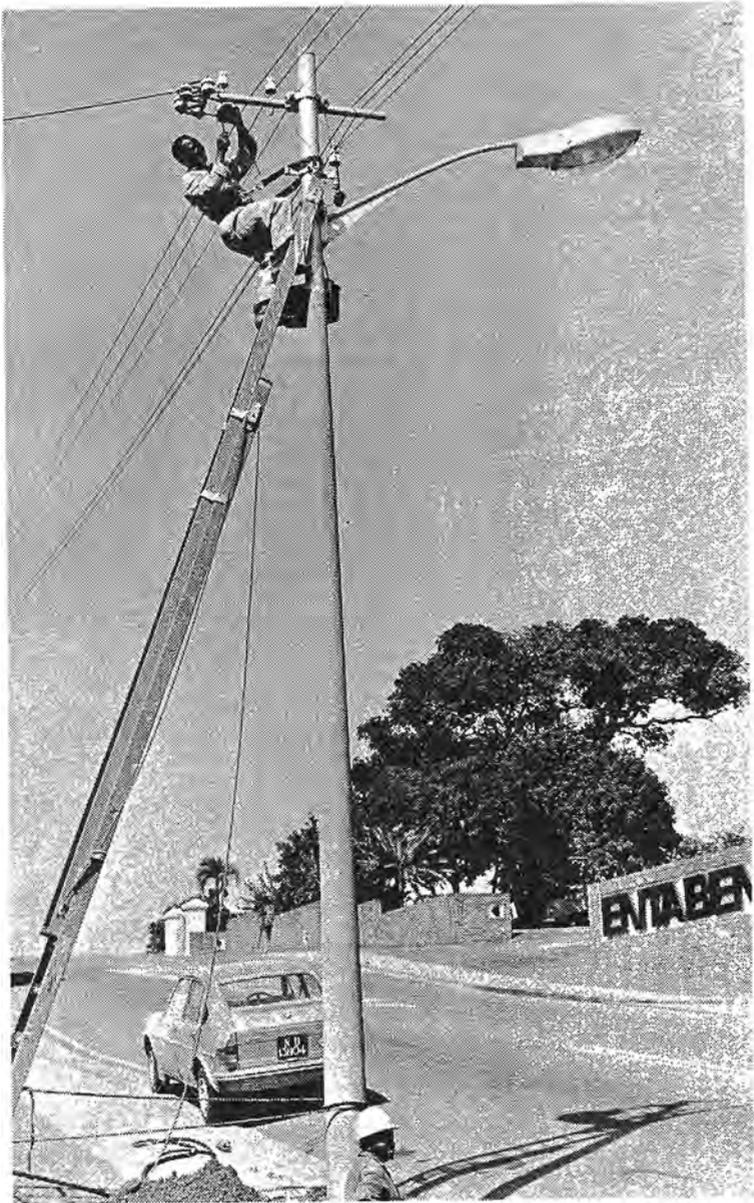
d. *What is this person thinking? Why?*

e. *How does this person feel about working alone?*

f. *To do this kind of work, what does this person need most?*

g. *Usually, what are the effects of this kind of work on people who do it?*

h. *In five years' time, what work will this person be doing?*



LOOK CAREFULLY AT PICTURE NUMBER B C 1

This picture shows a person who has recently started in a new job.
This job is paid better than his last job, but it is more difficult.

a. *What is happening here? What is this person doing?*

b. *How does this person feel? What is he thinking?*

c. *To do this kind of work, what does this person need most?*

d. *Will this person be able to succeed in this new job, or not? Why?*

e. *In five years' time, what work will this person be doing?*

Now look at ALL the work pictures again.

Imagine you have to choose one of the jobs in these pictures, to work in yourself.

- a. Write in this box the number of the job you would like best.

BEST JOB

Write here your main reason for choosing this job.

- b. Write in this box the number of the job you would choose as second best.

SECOND
BEST JOB

- c. Write in this box the number of the job which you would like least.

WORST JOB

Write here your main reason.

APPENDIX B.

DETAILS OF "IMAG" AND "CONF" VARIABLES,
AND SCORING PROCEDURES.

APPENDIX B.DETAILS OF "IMAG" AND "CONF" VARIABLES, AND SCORING PROCEDURES.

1. The variable "IMAG",
describing *Perceived Desirability of the Work*,
was scored according to the criterion question:
"Would the respondent want this job?"

Responses were assigned to one of three possible categories
or values, as follows:

<u>MAJOR CLASSIFICATION</u>	<u>CORRESPONDING ALTERNATIVE CLASSIFICATION*</u>
3. Yes	Conveys definitely good image.
2. Conditional yes, or equivocal	Conveys less favourable image or neutrality
1. No	Conveys bad image, avoidance.

In practice these categories were found to cater for all responses
encountered.

* Derived from Schlemmer, L. (1973) "Social Status, Perceptions of
Personal Adequacy, and Morale : A Neglected Field of Enquiry", in
ASSA/Meer: *Sociology Southern Africa* 1973.

2. The variable "CONF", describing *Perceived Prospects for Own Advancement in the Work*, was scored according to the criterion question:
"Is the respondent confident in his own ability to progress in this job?"

Responses were assigned to one of three possible categories or values, as follows:

<u>MAJOR CLASSIFICATION</u>	<u>CORRESPONDING ALTERNATIVE CLASSIFICATION*</u>
3. Yes	Very confident/enthusiastic response.
2. Conditional yes, or equivocal	Less confident or neutral response.
1. No	Response conveying low self-esteem or lack of self-confidence.

In practice these categories were found to cater for all responses encountered.

* Derived from Schlemmer, *ibid.*

APPENDIX C.

DETAILS OF LOCUS OF CONTROL VARIABLES.

APPENDIX C.

DETAILS OF LOCUS OF CONTROL VARIABLES.

Two types of LOCUS OF CONTROL orientation were assessed by means of the forced-choice attitude scale which is reproduced, from the questionnaire, on the following pages.

For each item on the scale, an initial choice within the basic dichotomy was then qualified according to strength of personal agreement with the choice, generating four possible values for the variable.

The components of the factor "PERSONAL CONTROL IDEOLOGY" are items A, C, E, G and I.

The components of the factor "SYSTEM MODIFIABILITY BELIEFS" are items B, D and F.

Item H is a filler item.

The item-whole correlations of the two sub-scales, for the present sample, are as follows:

Personal Control Ideology:

	<u>Item A</u>	<u>Item C</u>	<u>Item E</u>	<u>Item G</u>	<u>Item I</u>
Correlation (r) with whole PC variable	,53	,62	,57	,55	,49
Significance (p)	,00	,00	,00	,00	,00

System Modifiability Beliefs:

	<u>Item B</u>	<u>Item D</u>	<u>Item F</u>
Correlation (r) with whole SM variable	,71	,64	,53
Significance (p)	,00	,00	,00

LOKU AKUKONA UKUVIVINYWA. SITHANDA UKWAZI IMIBONO YAKHO.

EZINDABENI EZININGI, ABANTU NGOKWAHLUKANA BANEMIBONO EHLUKENE. NGENZANSI UZOBONA IMIBONO EHAMBA NGAMIBILI, ABANTU ABAKHULUMA NGAYO KWESINYE ISIKHATHI.

SIFUNA UKUBA UKHETHE. KULEYO NALEYO MIBONO, NJENGOBA INHAMBANGAMIBILI, KHETHA UBE MUNYE OONA SENGATHI USONDELENE NEYAKHO IMIBONI, UWUKHOMBISE NGESIPHAMBANO (X).

BESE UFAKA *ESINYE* ISIPHAMBANO FUTHI (X) *KWELILODWA* LAMABHOKISI AMABILI ANGENZANSI, UKUKHOMBISA UKUTHI IMIBONO OYIKHETHILE "ICISHE ISONDELANE" NEYAKHO, NOMA "ISONDELENE KAKHULU" NEYAKHO.

a.

Many of the unhappy things in our lives are partly due to bad luck.

Our misfortunes result from the mistakes we make.

quite close to my opinion

very close to my opinion

b.

Racial discrimination is here to stay.

People may be prejudiced, but it is possible for our society to rid itself of open discrimination

quite close to my opinion

very close to my opinion

c.

What happens to me is my own doing.

Sometimes I feel that I do not have enough control over the direction my life is taking.

quite close to my opinion

very close to my opinion

d.

In world affairs, most of us are the victims of forces we can not understand or control.

By taking an active part in public and social matters, the people can control world events.

quite close to my opinion

very close to my opinion

e.

When I make plans, I am almost certain that I can make them work.

It is not always wise to plan too far ahead, because many things turn out to be a matter of good or bad fortune anyhow.

quite close to my opinion

very close to my opinion

f.

The racial situation may be very complicated, but with enough money and effort, it is possible to get rid of racial discrimination.

We will never completely get rid of discrimination. It is part of human nature.

quite close to my opinion

very close to my opinion

g.

For me, getting what I want has not much to do with luck.

Many times we might just as well decide what to do by spinning a coin.

quite close to my opinion

very close to my opinion

h.

A good leader expects people to decide for themselves what they should do.

A good leader makes it clear to everybody what their jobs are.

quite close to my opinion

very close to my opinion

i.

Many times I feel that I have little influence over the things that happen to me.

It is impossible for me to believe that chance or luck play an important part in my life.

quite close to my opinion

very close to my opinion



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