

THE SOCIAL REFERENCE-

GROUP THEORY OF JOB SATISFACTION

A comparative study of Coloured and White  
salesmen in South Africa

by

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## C O N T E N T S

	<u>Page</u>
ABSTRACT .....	1-2
INTRODUCTION AND SURVEY OF LITERATURE .....	3-39
HYPOTHESES .....	40-85
METHOD .....	86-100
QUESTIONNAIRES .....	101-113
RESULTS .....	114-124
DISCUSSION OF RESULTS, CONCLUSIONS AND SUGGESTIONS FOR FURTHER STUDY .....	125-162
SUMMARY .....	163-168
REFERENCES .....	169-178
APPENDIX IA and IB .....	179-185
II .....	186

ABSTRACT

Data relevant to five separate areas of a worker's job satisfaction (satisfaction with: work, pay, promotion opportunities, co-workers and supervision) were gathered from a sample of 98 male Coloured salesmen and 95 male White salesmen, employed in different branches of a life assurance company in South Africa. Furthermore, measures were obtained of the subjects' feelings of overall job satisfaction and dissatisfaction, in order to investigate the validity of Herzberg's theory that job satisfaction and job dissatisfaction are qualitatively different and that, as a result, they should be measured separately. Next, measures were obtained of the subjects' feelings of internal versus external control in life. Separate measures were obtained on the two subscales of personal control and control ideology of Gurin's Internal-External Scale (1969). The subjects were asked to indicate in what class (upper, middle or lower) they regarded themselves to be and with what class they compared themselves.

Analysis of these data included:

- (a) the Coloured subjects were more satisfied with their jobs than the White subjects;
- (b) the workers who compared themselves with a higher comparative reference-group were less satisfied with their jobs than were workers who compared themselves with their membership reference-group, or with a lower comparative reference-group.

An explanation of these findings in terms of frames of reference and alternatives available to the workers is offered.

- (c) The Coloured subjects were less internally-orientated than the Whites and expressed less sense of personal control over their lives;

- (d) feelings of personal control were more highly correlated with satisfaction with intrinsic than with extrinsic job-aspects.

The present study established not only the usefulness of reference-group theory as a social explanation for differences in workers' satisfaction with various job-aspects, but also served to remove cultural limitations of Gurin et al's theory of internal-external control and to increase its generality.

Finally, measures of internal-external control were related to satisfaction with intrinsic and extrinsic job-aspects, and the I-E concept was related to the social reference-group theory.

INTRODUCTION

AND

SURVEY OF LITERATURE

REFERENCE-GROUP THEORY AND JOB SATISFACTION

Since the publication of Helson's adaptation level theory (1948), a large amount of research has been aimed at studying the influence of reference-groups on job satisfaction under different settings and conditions.

In this regard, the present study is an attempt to establish the usefulness of reference-group theory as a social explanation for personal evaluations of satisfaction with different job-aspects.

Form and Geschwender (1962) state that many traditional studies of job satisfaction hold assumptions that "ignore the stratification realities of urban society, the different experiences and aspirations of subgroups in such a society, and the operations of different forces on various segments of the society". (Form and Geschwender, 1962, p230). These studies assume that all levels of the occupational structure are pervaded by the same individualistic value-orientations of middle-status groups. In later studies, however, it has been shown that different types of industrial workers are not characterised by such similar orientations and that it is important to take into account the structural features of the society such as the type of stratification system.

Forthcoming from these considerations and from reference-group theory is the conclusion that any research on job satisfaction has to take into account the precise social locations which people occupy in society and the specific groups with which they compare themselves, or their reference-groups.

First, it is necessary to have a clear picture of what the theory is, how it was developed, and what the methods and conclusions

of the original investigators were.

Reference-group theory has been defined as follows (Orpen, 1974b, p.2): "Reference-group theory takes as its point of departure the norms of the group to which the individual looks for guidance rather than his personal (idiosyncratic) needs and interests. In terms of this theory, job satisfaction is determined largely by the degree to which the job situation meets the standards of the individual's reference-group."

The origin of reference-group theory was Helson's (1947) more general adaptation level theory. One of the most important statements of this theory is that "an individual's attitudes, values, ways of structuring his experiences, judgements of physical, aesthetic, and symbolic objects, intellectual and emotional behaviour, learning, and interpersonal relations all represent modes of adaptation to environmental and organismic forces". (Helson, 1964, pg.37). Thus a person adapts himself to a certain environment or situation in which he finds himself; this situation may be either natural or artificial and experimental. The concept of adaptation has been used to explain all sorts of human adjustments to their environment, ranging from simple sensori-motor responses to very complicated reactions amongst and between human beings. Helson (1964, p.50) states that "the adaptation level represents the zero or origin to which gradients of stimulation are referable. The steeper the gradient is, the greater the impact of the stimulus on the organism and the greater the response to it. Repeated or long-continued stimulation is reduced in effectiveness and sometimes completely neutralized because the organism brings its level as close as possible to the level of stimulation". Helson explains that while the organism adapts itself to a certain

stimulation, more stress is given to other stimuli above and below that stimulation, and that, therefore, adaptation is a neutralizing as well as a sensitizing process.

Helson described adaptation as caused by three different kinds of stimuli; namely focal, background and residual stimuli. As these stimuli have been found to influence a person's attitudes also, Helson, Blake, Mouton and Olmstead (1956) undertook to investigate a person's adaptation to degrees of social pressure exerted on them under various conditions. The results indicated that in order to predict human behaviour one has to take into account the effects of all three kinds of stimuli. "Consistent with adaptation-level theory the expression of attitudes is an adjustment of the individual representing the pooled effect of these three sources of variance". (Helson, et al, 1956, p.321).

Helson (1948) showed in his study on "Adaptation Level and frames of reference" how the adaptation-level theory can approach concepts such as frames of reference, norms, etc. in a quantitative way, and that the theory is able to predict and interpret certain aspects of individual and group behaviour. He states that "adaptation-level, defined operationally in terms of the stimulus evoking a neutral or indifferent response, can be quantitatively determined, and since the structure of the behavioural field is fixed by the position of the neutral point, the frame of reference is completely defined once its value is known." (Helson, 1948, p.298). He regards group-actions as being made up of individual's desires, concepts, ambitions, responses, etc. and indicates how adaptation-level theory explains such phenomena as "social lag": the reason for slow group action is that some individuals

within that group may not accept and act according to its adaptation-level represented by, for example, social laws or standards, and thus slow down the group action.

On the other hand, group action may become faster when "great leaders, extreme economic conditions, persistent propaganda raise or lower levels of acceptance or rejection of ideas to the point where new patterns of action emerge in society". (Helson, 1948, p.312).

In his book on Adaptation-Level Theory (1964) Helson discusses the problem of relativity in psychology and he refers to the effect which one's physical environment has on one's judgements. He states that all sciences have been looking and are still looking for absolute concepts, which often out to be useless when one discovers the various influences coming from the environment, to which these concepts are subjected. These influences work in such a way as to make the concepts rather relative, as opposed to absolute. As an example of concepts in psychology which were discovered to be dependent instead of absolute concepts, Helson names the concepts of sensation and reflex.

Thus, all sciences have to take into account the influences to which their findings are subject; this applies especially to psychological research which makes use of human subjects. People have many individual differences and are very much influenced by their environment and by the conditions under which they work or perform in a psychological experiment. Therefore, "a truly relativistic approach to behavioural phenomena must state to what frame of reference phenomena are relative". (Helson, 1964, p.31). By taking into account this relativity in psychology, it is possible to make use of certain data in a certain experiment under certain conditions, although these data have originally been obtained in another experiment under

different conditions. One hereby recognizes that these data have lost their absolute value for the next experiment, but that they can still be of some use. "Behavioural relativity as conceived here is not to be equated with experimental error or with deviations from expected outcomes due to extraneous factors; it should be considered rather as relativity that is lawful, ordered, and predictable from situational and personal factors which influence prevailing adaptation levels." (Helson, 1964, p.31). Thus the colour red may seem dark in a series of colours, ranging from pink to red, and it may seem light in a series of colours, ranging from red to purple. Here the subject judges differently in the two series of colours as he looks at the two extremes of each series. After making the first judgement, his level of adaptation changes when he makes his second judgement. Thus a man's judgement depends on the kind of stimuli he is offered: he is influenced by his physical context. This physical context influences not only his judgement of objects but also that of people: a rich man seems much richer if he lives amongst poor people, than if he lives amongst millionaires.

The importance of the influence of a person's physical environment on his judgement was shown by Maslow and Mintz (1956), who studied the effects of beauty and ugliness upon people, by exposing their subjects to three different visual-aesthetic conditions, namely those of "beautiful", "average" and "ugly" rooms. After the subjects had described the room in which they found themselves, they were each given a series of 10 photographs of individuals' faces. The subjects were asked to give their impression of each face, while the examiner stressed the dimensions of "energy" and "well-being". The results indicated that the subjects in the "beautiful" room gave significantly higher ratings on

the two abovementioned dimensions than subjects in either the "average" or "ugly" rooms; furthermore, it was shown that the ratings of the subjects in the "average" room were somewhat higher than the ratings of those in the "ugly" room. Thus it was shown that these subjects were indeed influenced by the amount of attractiveness of the room in which they performed the experiment; this was one of the first attempts to study the way in which people are affected by their aesthetic environment.

In a subsequent study Mintz (1956) investigated whether the abovementioned results were only short-term effects, and whether subjects would adapt to the rooms after having been exposed to the different conditions for a longer time. For three weeks the subjects in this experiment were each exposed to the "beautiful" and "ugly" rooms for a few hours each week. The results indicated that each subject spent significantly more time in the "beautiful" room than in the "ugly" room, and that in the "ugly" room the subjects showed signs of discomfort, while the subjects were quite happy and comfortable in the "beautiful" room. Thus Mintz concluded that "visual-aesthetic surroundings can have significant effects upon persons exposed to them. These effects are not limited either to "laboratory" situations or to initial adjustments, but can be found under naturalistic circumstances of considerable duration". (Mintz, 1956, p.466).

Another study indicating the effect of the physical context on a person's judgements, was that by Phares and Rotter (1956). In this experiment replies on questions regarding three different kinds of rewards, namely academic achievement rewards, athletic achievement rewards and manual skill rewards, were given by subjects under three different conditions: they found themselves in either an English class, a gymnasium,

or a woodworking class. The results showed that two of the three predicted differences between mean rankings, obtained in the different situations on the three items were significant: the difference between replies to "athletic-and academic-reward questions", given in the English class and in the gymnasium, were significant. The differences between replies to "athletic-and manual-reward questions", given in the gymnasium and in the woodworking class, were also found to be significant. Therefore Phares and Rotter concluded that "such relatively unimportant variables as the physical setting of the testing (....) may generally have demonstrable effects on test results". (Phares and Rotter, 1956, p.293).

The studies by Maslow, Mintz, Phares and Rotter show how important it is to take into account to what frames of reference (in this case the surroundings in which people live) judgements are related and in what way they may influence and change people's sensitivity and responses.

In the case of the study by Phares and Rotter, the subjects were examined by three different examiners, one in the English class, one in the gymnasium, and one in the woodworking class. In the discussion of this study it was assumed that the subjects were not only influenced by their physical context (the room), but also by their social context, as the subject probably associated each examiner with the room in which he found himself.

We can very well imagine that this influence on a person coming from his social context is quite possible, when we draw parallels from the physical to the social context. A person who reacts in different ways, depending on whether he finds himself in a beautiful or an ugly room, may also react amongst poor people in a way which is

different from the way he would react amongst rich people. An example of how one is influenced by one's social environment, and how this affects one's judgements, is provided by a study by Thibaut and Riecken (1955). In this study 20 subjects were asked to attempt to influence an audience of two persons and convince them to donate blood to a certain institution. These two persons had been instructed to behave as if they were subjects too. One of them, the "high-status confederate", made it clear to each subject that he had obtained a Ph.D. degree and was now a staff-member. He was neatly dressed during the whole experiment. The other person played the role of the "low-status confederate", and told each subject that he was a first year undergraduate student. He was always sloppily dressed. This role-playing served "to create a perception of difference between the two confederates in their power to resist influence" (Thibaut and Reicken, 1955, p.123). After the indication from the two confederates that they had been persuaded by a subject the examiner asked this subject in a post-experimental interview which person he regarded as having been forced to comply with the request, and which person as having agreed because he wanted to give blood anyway. Here, 18 out of the 19 subjects felt that the low-status person had been forced to agree, while they felt that the high-status person had agreed voluntarily. "Apparently in our own (American) culture to perceive a man as belonging to a high-status group is to perceive his behaviour as being internally determined, as showing 'free will' and self-determination, whereas to perceive a man as belonging to a low-status group is to perceive him as more easily pushed around by external pressures" (Krech, Crutchfield and Ballachey, 1962, p.54). This is an example of persons who have been influenced in their judgement by their cultures or their social environment.

Part of one's social environment is determined by the social situation in which one meets a person. If someone meets a person who has just been to the funeral of a relative, he will get a certain impression from that person and will make a judgement about him which is different from the way he will judge when he meets the same person at a party.

Also the role which people play vis-à-vis each other appears to be important. Bruner and Tagiuri (1954) give another example of how interaction between persons affects the way in which they judge each other: a man in the Army has a job as a mechanic and meets via his work two other men, namely a fellow mechanic and an officer. These two people will form different impressions of him. The officer will look for cues which indicate his reliability, initiative and courage; the fellow mechanic will look at the quality of his work; he will find out whether he is easy to work and get along with, and he will form an impression of him in this way. "Each is observing and making inferences based upon those aspects of behaviour of the mechanic that might affect their interaction with him" (Bruner and Tagiuri, in: Lindzey, 1954, p.642).

Thus we may conclude that how an individual reacts upon and judges objects and persons he meets, is dependent upon the nature of his physical and social environment.

Instead of focussing on the subjects themselves in experimental performances, Helson moved the attention to people's environments and showed how a change in a person's performance could be caused by a change in his environment, which resulted in certain changes in that person, such as lowered or heightened ambitions or self-confidence.

The inability of former theories on human behaviour to explain certain phenomena was caused by the fact that they searched for reasons

in the subjects themselves, without taking into account their environments and the stimuli to which they are exposed.

Helson, instead, introduced the frame of reference in which a person acts and against which he judges; he showed that a person who is offered a series of rather light weights and who is then asked to judge the weight of a reasonably heavy object, will estimate that object to be more heavy than he would, if he had to estimate the weight in connection with a series of rather heavy weights. In other studies by himself and others it was shown that the environment influenced people's judgements of objects as well as people. From then on many results of psychological experiments were explained in terms of environmental stimuli.

From Helson's adaptation-level theory of behaviour, from his warning that it is important to state "to what frame of reference phenomena are relative (Helson, 1964, p.31) and from the subsequent realization that one has to incorporate into experiments on person's judgements the physical and social environment of the subjects, the reference-group theory was derived, which has been used as an explanation for many findings of studies on job satisfaction.

In line with the adaptation-level theory, some researchers realised that a subject made judgements in the frame of a certain reference-group to which he adapted himself, and that knowledge of a worker's reference-group could be useful to explain his level of job satisfaction. Previously employers had attempted to heighten their workers' job satisfaction by such things as providing a better salary. However, such methods did not always work out: in some cases job satisfaction stayed low. The reference-group theory has indicated that a worker's comparisons with such a group are likely to influence his

ambitions, feelings of self-confidence, desires, etc., and that these, in turn, may affect his feelings of job satisfaction. Therefore the attention should be focussed on workers' reference-groups and on their feelings resulting from comparisons with these reference-groups, in order to explain findings obtained by research on job satisfaction and in order to improve job satisfaction itself.

Why do people choose reference-groups? People seem to prefer to conceive of themselves as a member of a group, rather than describe themselves in terms of individual characteristics. This assertion was investigated in a study by Kuhn and McPartland (1954), called "an empirical investigation of self-attitudes". A group of students was asked to answer the question "Who am I?" by writing down 20 statements about themselves. These answers were categorized as consensual or subconsensual references. Consensual references placed the subject in a group or class whose characteristics are generally known, such as student, man, Christian, etc.; subconsensual references placed the subject apart from other people and indicated certain characteristics which applied to him only, such as good student, very skinny, red-haired, etc. It appeared that the subjects tended to describe themselves in terms of consensual references, as members of well-known groups, before they made use of subconsensual references. Thus, the subjects tended to write down "student" or "Christian" before they evaluated themselves as a "good student" or "very skinny". Krech, Crutchfield and Ballachey (1962, p.79) conclude that "if we accept the assumption of the investigators that this ordering of responses is a valid reflection of the individual's self-concept, it appears that the self-concept is heavily infused with group membership".

Festinger (1954) states in his social comparison theory that man shows a strong need for self-evaluation, which he prefers to accomplish

by means of comparing his own abilities, opinions and attitudes with those of other people. Everybody develops certain attitudes in the course of life. "Man's attitudes develop as he develops. But no man's life develops apart from the lives of his fellows. And just as each man's life intersects the lives of others - but only at certain points - and just as each man's life story is similar to - but not identical with - the life stories of his neighbours, so are the attitudes which each man develops similar to - yet different from - the attitudes of his family, friends, neighbours and compatriots". (Krech, Crutchfield and Ballachey, 1962, p.180).

Man obtains certain attitudes in order to satisfy his wants, while coping with various problems in life. The kind of attitudes he develops is dependent on the information he obtains. This information is for a great part coming from the social circles in which he moves. From these circles then, he may eventually pick the people who will form his reference-group, and whose opinions are closest to his own. This group is called his "membership reference-group", as he himself is one of its members. He accepts and adopts the norms and values of this group.

However, an individual does not always have to be a member of his reference-group (Merton, 1957). He may not agree with the norms and values of the groups to which he belongs and may, therefore, choose a non-membership group as his reference-group, which is then called his "comparative reference-group". Thus, he compares his own situation with that of his comparative reference-group.

In society a person may belong to many different groups: his family, his sports club, his fellow workers, his friends, his religious groups, etc. However, a person does not necessarily have to compare himself with one of these groups. A person will rather form his

reference-group by choosing various persons from one or two of these groups. Thus the essence of a reference-group as opposed to other groups is that he can evaluate himself against this group, whereas with the other groups he may socialize, but they do not provide him with certain "standard" opinions or abilities with which he can compare his own.

Once a person has adopted a certain reference-group he will accept the values of the members of that group. From that moment the reference-group's standards will start to influence his feelings of satisfaction or dissatisfaction with himself. As Kretch, Crutchfield and Ballachey (1962, p.80) state: "The self-esteem of most men is based on the achievement of goals which reflect group values".

If a person lives according to the norms and values of his reference-group, he will be socially rewarded; if he doesn't, he will be disapproved of. The more he values his reference-group, the less will his attitudes which he holds in common with his reference-group, be subject to change.

Evidence of this was given by a study by Kelley and Volkart (1952). As their subjects they used a group of Boy Scouts, as these usually have common norms, values and rules. At one of their meetings an experimenter held a speech which attacked one of these Scout-values, namely the use of camping-out, which is one of the favourite activities of Scouts. Before and after the speech questionnaires on camping topics and some topics concerning city life were completed by the Scouts. The questionnaire, which was handed out before the speech, also included some items concerning the extent to which membership of the troop was valued by each Scout. The results indicated that the more membership was valued by the Scouts, the less the tendency to change in the direction sought by the communication. The Scouts who put the least

value on membership changed most. The speech even turned out to have what Kelley and Volkart called, a "boomerang" effect on the Scouts with the highest valuation score; their attitudes changed in the direction opposite that of the speech and they valued the group norms even higher than they did before the speech. This study shows that "attitudes that reflect the norms of a group which is highly valued by the individual are marked by resistance to change". (Krech, Crutchfield and Ballachey, 1962, p.224).

Worchel and Arnold (1973) investigated the "effects of censorship and attractiveness of the censor on attitude change". Their student-subjects were informed that a speech, which they would otherwise have heard, and the topic of which was mentioned to them, had been censored by a group which was either positively, negatively or neutrally evaluated by students in general. They were asked to complete a questionnaire which asked them to indicate their attitudes on the topic of the speech. It was found that those students who had been led to believe that the speech had been censored by a positively evaluated group, changed their attitudes away from the direction sought by the speech. Those who believed that the speech had been censored by a negatively evaluated group, changed their attitudes toward the position of the communication.

It is clear that the attractiveness of the positively evaluated group to the subjects was greater than that of the negatively evaluated group, as these groups had been judged by their reference-individuals, namely other students, and that the subjects changed their attitudes away from or toward the position advocated by the speech, depending on whether their co-students had evaluated the censor in a positive or negative way. These results show the close association existing between one's reference-group's norms and attitudes and one's own attitudes.

In short, man develops in the course of his life certain attitudes, in order to satisfy his needs. These attitudes are evaluated against those held by a certain group, his reference-group, of which he may or may not be a member. This reference-group, which is generally highly valued by him, exerts a strong influence on his attitudes and on the amount of change these may undergo. Any individual may have numerous membership and comparative reference-groups of which he makes use in various situations. Theoretically, a person can have an infinite amount of reference-groups. In practice, however, this is not likely. Hyman's (1942) findings are that the amount of reference-groups used by people is generally small. And he points out that "despite the large number of possible reference-groups, it is likely that particular reference-groups are specified by or are relevant to particular problems of status". (Hyman, 1942, p.47).

Thus a person may choose a certain social class as his reference-group to which he compares himself when he thinks about his own social situation. For instance, a person who regards himself as a member of a lower-class, may reject the attitudes reflecting the values and norms of that class, and may instead accept and adopt those of the middle-class. In this case he is a member of a lower-class-group, but his comparative reference-group is a group of middle class persons. In connection with this kind of situation, Runciman (1966) discusses the concept of "relative deprivation". "A person's satisfactions, even at the most trivial level, are conditioned by his expectations, and the proverbial way to make oneself conscious of one's advantages is to contrast one's situation with that of others worse off than oneself". (Runciman, 1966, pg. 9). Thus, when a person compares himself with a certain reference-group, to which he does not belong, but whose situation he would like to share, he will feel relatively deprived. The

greater the difference is between the situation of his membership group and that of his comparative reference-group, the larger will be the feeling of deprivation, and hence, the lower will be the satisfaction of this person with the aspect being compared.

In contrast with Hypothesis III of Festinger's social comparison process theory that "the tendency to compare oneself with some other specific person decreases as the difference between his opinion or ability and one's own increases," (Festinger, 1954, p.120), Hakmiller (1966) suggested that a person might deliberately choose a superior other person to compare himself with, in order to set himself an example of how he would like to be, or, on the other hand, an individual might compare himself with an inferior person, in order to obtain self-enhancement. The last part of this suggestion was supported by Hakmiller's finding that the more unfavourable information a subject received about himself, the stronger was his tendency to compare himself with an inferior individual (i.e. someone who was worse off than himself) in order to reduce this threat to his self-regard. Furthermore, after such a comparison each "High-Threat" subject was significantly less disturbed about the negative information he had received and therefore we may suggest that his relief and satisfaction with himself must also have been greater than it was after receiving the information.

The abovementioned study shows that a person does not necessarily always compare himself with someone who is as equal as possible to himself in all respects, but is likely to choose someone who is quite inferior (or superior) to himself.

Previous research has shown that persons who are characterized by low self-confidence, low self-esteem and a low sense of control over their future, tend to be irrational in their goal-setting, desires,

aspirations, etc. They aspired, for instance, to occupations which were either much too easy or too difficult in terms of their abilities. Conditions under which such a person would choose an inferior person as a point of comparison, are those in which he feels threatened for some reason (as in the abovementioned case), and in which he seeks self-enhancement.

On the other hand, those people with high self-confidence and high sense of control over their future, seem to be much more realistic in their aspirations.

We may consider Coloured to belong to the first group, and Whites to the second group. Looking at the two middle-class groups, it can be seen that, indeed, far more Whites ( $N = 23$ ) than Coloureds ( $N = 2$ ) compared themselves to their membership reference-groups. The same situation is, to a smaller extent, found in the two lower-class groups ( $N = 9$  and  $4$ ). In the upper-class groups, however, the situation is reversed: more Coloureds than Whites compared themselves here to their membership reference-groups. Possibly the cause of this is that upper-class Coloureds feel relatively more self-confident and self-assured than lower- and middle-class Coloureds, despite their social situation with respect to Whites. This may result in them being more realistic in the choice of their reference-groups than middle- and lower-class Coloureds.

In the abovementioned case, persons who compared themselves with inferior others, felt less upset and their self-regard had been boosted. We may suggest that the opposite would have happened if subjects had compared themselves with others who were superior to (better off than) themselves: they would have become even more upset and their self-regard would have been more negative than it was originally, so that satisfaction with himself would have lowered.

Runciman (1966) explains that the frame of reference can have two different ways of working:

- (1) a man who has high expectations about getting a salary increase and who fails to achieve that increase will be much less satisfied than someone who did not have such high expectations;
- (2) a man who is taken to hospital because of some minor injuries will become less horrified if he gets to lie next to a man who has been injured for his life.

Runciman points out that the same applies at other levels, e.g. that of classes. For instance, a man, belonging to a lower-class, who expects to achieve the level of a more prosperous middle-class with which he compares himself, will stay discontented until he has reached that level. On the other hand, a man belonging to an upper-class who compares himself for some reason with a lower-class person or group, will feel contented when he sees how prosperous he is compared to the others.

In this context, it was interesting to investigate the effect that different reference groups had on peoples' job attitudes, such as satisfaction with their jobs and with aspects of those jobs. This is exactly what has been done in the previous few years: influenced by Helson's adaptation-level theory, Festinger's social comparison theory, and probably also by Human's and Runciman's ideas, various psychologists have started to probe into feelings of job satisfaction of people in different working-and living-environments, and to investigate the effects of reference-groups on job attitudes.

One of the most important findings for the present study was that by Hulin (1966a), who found an inverse relationship between certain community characteristics and job satisfaction. This study represented

a continuation of other studies done by himself and some other people, and it provided a clarification of certain results, obtained in those studies, which will be mentioned before a further explanation of Hulin's study is undertaken.

In 1965 Hulin and Smith did a study on job satisfaction. They found that work, pay and promotion satisfaction of the male workers in their study could be predicted by a linear model of job satisfaction.

These areas of job satisfaction were significantly and consistently related to the 4 independent variables of a worker's age, tenure on the job, his salary and job-level. They explained their results in terms of differences between expectations and environmental return.

"We assume that the longer a worker has been on the job the more he knows what to expect from the job and the entire situation. Concomitant with the changing level of the discrepancy between expectations and environmental return we find that in addition the level of the return is increasing due to tenure-connected raises and promotions. We would argue, therefore, that an explanation based on linear relationships between discrepancies between expectations-return and tenure, and linear relationships between tenure and return would be sufficient to explain the findings of the study". (Hulin and Smith, 1965, p.215/216).

Runciman (1966) speaks of "relative deprivation", which is the result of the differences between expectations and environmental return. Hulin and Smith point out that the smaller the difference between expectation and environmental return is, the more satisfied the worker will be. This is exactly what social reference-group theory implies: the amount of job satisfaction is dependent on the greatness of the discrepancies between expectations and the actual experience of the job. These expectations held by an individual are derived from his reference-

group and its norms and standards to which he aspires. Therefore, the greater the difference between the job situation and the reference-group's norms, the less the job satisfaction; the smaller the difference, the greater the job satisfaction.

Empirical support for this point of view was provided by the results of various studies (Katzell, Barrett and Parker, 1961; Hulin 1966a). As previous studies had not been able to establish any consistent, during relationships between workers' job satisfaction and performance, Katzell et al (1961) undertook to do further investigations on this subject. Several others had already suggested that there must be other variables, influencing the relationship. Brayfield and Crockett (1955) had suggested as a useful approach the study of workers' motives, aspirations and expectations, and "how, for particular workers, productivity comes to be perceived as instrumental to the achievement of some goals but not others, while for other workers a different perception develops". (Brayfield and Crockett, 1955, p.421). They added that it was important to take into account not only the individual's work-environment and his place in it, but also his environment at home, in his community. March and Simon (1958) mainly stress the importance of the knowledge of workers' motivations and the satisfaction of individual goals in the organisation, in order to avoid conflicts between the job and the individual.

These findings, amongst others, led Katzell et al (1961) to "a general model in which the work situation is regarded as a system having as separate outputs employee satisfaction and performance, and as inputs characteristics both of the working environment and of the employees. Various of the inputs may be expected to affect either or both of the two sets of outputs via their effects on employee motivation, ability,

or both. Furthermore, the inputs may be interactive in their effects". (Katzell et al, 1961, p.65). By adopting this model they aimed to explain the inconsistent findings of previous studies on job-satisfaction and performance. Subjects were chosen from various warehouses in different geographical places, all belonging to the same company. An attitude survey was conducted in order to measure the worker's job satisfaction; five performance measures were taken and finally information was acquired on situational characteristics which were likely to influence workers' motivations. These situational characteristics included: size of work-force, city size, wage rate, unionisation and the percentage of male employees. Although it was not intended by Katzell et al, the degree of urbanisation turned out to be low or high, depending on the abovementioned factors being low or highly loaded. One of their findings was that job satisfaction was inversely related to this degree of urbanisation; they explained this outcome in terms of needs and expectations formed by the employee. "Given a fairly uniform working environment in terms of perquisites, policies and technology, (...) variations in satisfaction may stem from the differential fulfilment of differing employee needs and expectations within this environment". (Katzell et al, 1961, p.70). It is quite understandable that an employee, living in a large city, is less satisfied with his pay than an employee with the same pay who lives in a small town, where life is less expensive, etc. We can see here again how a worker's environment can affect his job satisfaction via influence on his needs and expectations.

In 1950 Worthy had already discussed in his paper on "Organisational structure and employee morale" the interrelationships between morale, performance and situational characteristics for employees of large

retailing establishments, many of which Katzell et al obtained in their samples of warehouse groups: he found that the size of the working unit was inversely related to workers' morale. A small work unit resulted in better relationships amongst workers and between workers and supervisors and in a simpler social system, as there are fewer people, fewer organisational levels, and less subdivision of work, so that the worker sees more meaning in his job. All this results in a higher level of satisfaction.

Worthy's paper did not include any research; however, it was based on 12 years of study of employee attitudes and morale; during those years more than 100 000 subjects had been used and experimental groups had varied in size from 25 employees to more than 10 000. Therefore it must have given quite a lot of impetus to all the research later done into the effect of community characteristics on measures of job satisfaction, results which were explained in terms of the reference-group theory.

Hulin (1966a) was inspired by the abovementioned studies and papers, and investigated the abovementioned inverse relationship between community characteristics and job satisfaction. He explained this in terms of a frame of reference which the worker derives from the general economic situation of his community and against which he considers and rates his own situation. Living in a poor community a worker with a low salary would consider his position to be much better than he would if he lived in a prosperous community. His job satisfaction would therefore be higher while he lived in a poor community than if he lived in the prosperous one. Hulin points out the relationship of his explanation with Helson's adaptation level theory (1948): a worker in a poor community thinks in other dimensions and regards his job to be more valuable than a worker with a similar

job and salary living in a wealthy community. One can easily see the similarity with Helson's comparison of American cars, being perceived as much bigger by Europeans than by Americans.

If the abovementioned argument, namely that community characteristics provide the workers with a frame of reference, holds true, then it should hold true not only for low-level workers, used as subjects in Hulin's study, but also for workers from other strata. Empirical support for this suggestion was provided by two studies by Orpen (1974 a/b) who found that the argument holds true for factory supervisors, factory cleaners as well as for clerks. The validity of this hypothesis is further inspected by the present study, using samples of salesmen.

Hulin (1966a) concludes that "the results of this study would seem to indicate that a conceptualisation of job satisfaction which does not include recognition of the part played by frames of reference or alternatives available to the worker is going to be inadequate. At the same time, investigations of job satisfaction should include the community and plant or office characteristics if these are allowed to vary". (Hulin, 1966a, p.191).

Another point of importance is the kind of measure of job satisfaction which is used. Previous studies measured job satisfaction as if it was one undifferentiated whole. Later, however, one discovered that job satisfaction should be seen as consisting of different areas, such as satisfaction with pay, work itself, supervision, promotion opportunities and co-workers. Some of these areas have been found to behave differently from the others.

### INTERNAL-EXTERNAL CONTROL

Finally, a measure of Internal-External control (subsequently referred to as "I-E") was included in the present study, in order to examine in what way people from different races react to this measure and in order to relate responses in the I-E control measure to the different areas of job satisfaction.

Various investigations in the ways in which man controls his environment have used many different concepts. Amongst these were motivational variables such as alienation, mastery, competence and helplessness. Another concept, which is more like an expectancy variable, is that of internal-external control. Rotter was the originator of this concept. Initially he wrote extensive books and articles on his social-learning theory (Rotter, 1954; 1960). In his 1960 article he states that "whether or not a given learning task is one in which the S feels that success is dependent upon the experimenter's manipulation (...) or is the result of his own skill provides a crucial difference in the nature of the learning process itself". (Rotter, 1960, p.312). Finally he generalised this statement in an article (Rotter, 1966) on learning as well as on many other human behaviours, and he remarked that man's reaction on reward for some behaviour is dependent on whether he sees this reward as caused by his own behaviour, or by some external force or whether he feels that he has internal control over this reward, or that the reward is externally controlled. Apparently people can be divided into two groups: firstly the "Internals", believing that they themselves control the reinforcements on their actions and that they therefore also control their own fate in life. And, secondly, the "Externals" who believe that they do not master the rewards on their behaviour and that their fate lies in the

hands of luck.

"When a reinforcement is perceived by the subject as following some action of his own but not being entirely contingent upon his action, then, in our culture, it is typically perceived as the result of luck, chance, fate, as under the control of powerful others, or as unpredictable because of the great complexity of the forces surrounding him. When the event is interpreted in this way by an individual, we have labelled this a belief in external control. If the person perceives that the event is contingent upon his own behaviour, his own relatively permanent characteristics, we have termed this a belief in internal control. It is hypothesised that (.....) consistent individual differences exist among individuals in the degree to which they are likely to attribute personal control to reward in the same situation." (Rotter, 1966, p.1).

Rotter's social learning theory, forming the basis of his internal-external control concept, describes the individual as expecting or not expecting reinforcement on certain behaviour, depending on whether he feels that he controlled reinforcement on similar previous behaviour. Reinforcement on an individual's behaviour will encourage him to expect reinforcement to reoccur on subsequent similar behaviour. If such reinforcement does not occur on subsequent actions, the expectation will diminish.

The extent to which the individual's expectations regarding reinforcements will strengthen depends on whether he is an "internal" or an "external". Thus, if he feels that reinforcement was caused and controlled by his own behaviour, his expectations regarding future reinforcement will strengthen to a larger degree than they would if he felt that reinforcement was controlled by somebody or something else.

On the other hand, if reinforcement on subsequent behaviour does not occur, the degree to which expectations will be extinguished will be larger in the first case, than in the second one. "It seems likely that, depending upon the individual's history of reinforcement, individuals would differ in the degree to which they attributed reinforcements to their own actions". (Rotter, 1966, p.2). Individuals are called "external controls" when they appear to expect that reinforcements on various behaviours are generally not under their own control. Adler would describe these persons as suffering from inferiority feelings. The occurrence of a certain behaviour then, is dependent on a person's expectation of reinforcement and on the value of that reinforcement for him.

Rotter (1966) developed his Internal-External Control Scale and showed that it was unidimensional. Other scales derived from it can predict behaviour in many different situations for example in experiments on risk-taking, educational aspirations, academic performances, influence on other people, etc. Rotter's scale is also frequently used in studies on low-income and minority groups. Thus it is not surprising that Rotter's concept of internal-external control has become important in many areas of research.

Various researchers have related the concept of alienation with that of internal-external control. The problem of alienation has been discussed in many sociological writings, and it has obtained different meanings, such as powerlessness, meaninglessness, normlessness, isolation and self-estrangement. Seeman (1959) discusses in his article "On the meaning of alienation" all these variants and conceives of powerlessness as "the expectancy or probability held by the individual that his own behaviour cannot determine the occurrence of the outcomes,

or reinforcements, he seeks". (Seeman, 1959, p.784). He then points to the relationship between the concept of powerlessness and that of internal-external control of reinforcements. He adds, however, that the applicability of the concept of powerlessness must be limited to "expectancies that have to do with the individual's sense of influence over socio-political events". (Seeman, 1959, p.785).

Some support for Seeman's abovementioned concept of powerlessness was provided by Seeman and Evans (1962). They hypothesised that the degree of alienation (i.e. powerlessness) is inversely related to the amount of knowledge about one's life situation: the more an individual is alienated, the less he will know about his life-situation; this is caused by his belief that this knowledge is unimportant for him, as his own behaviour does not control the outcomes in his life anyway. Thus Seeman and Evans tested the influence of alienation on social learning. Their subjects were patients in a tuberculosis hospital, who were asked to complete forms, testing their feelings of powerlessness and their knowledge about tuberculosis. The results confirmed their hypothesis: the more alienated patients had significantly less knowledge about T.B. and about their own condition than those who scored low on the alienation scale.

Seeman and Evans deliberately chose the hospital situation for their experiment, because in this situation the patient has little control over what happens to him, a feature which also appears in what they call "mass society". Thus they were able to generalise to other life situations: they assumed that "the results obtained here have implications for many other domains where the alienation concept has been applied - e.g. implications for political behaviour, mass communication, and the like". (Seeman and Evans, 1962, p.773).

Kornhauser (1959) refers to one of his previous studies on the relationship between social alienation and the feeling of political influence; the success obtained by their subjects indicated that the more an individual feels socially alienated, the smaller is his sense of influence over political events. This serves as further support for Seeman's (1959) concept of powerlessness in which he describes the individual as having a low feeling of influence in social, economic and political matters.

Fromm (1941, p.124) writes that an individual in the "mass society" becomes alienated and "does not experience himself as the active bearer of his own powers and richness, but as an impoverished 'thing' dependent on powers outside of himself, unto whom he has projected his living substance".

The concept of the internal-external control has become increasingly popular in studies of low-income and minority populations. For example, a number of studies of motivation and performance of Negro student populations suggest that Negro students, in comparison with Whites, are less likely to hold strong beliefs in internal control; that social class and race probably interact so that lower-status Negroes particularly stand out as externally-orientated; finally, that internal control is a critical determinant of academic performance.

The results of a study by Battle and Rotter (1963), establishing the relationship between I-E and several sociological and demographic variables (age, sex, class, ethnic group and I.Q.), indicated that lower-class Negroes were significantly more external than middle-class Negroes or Whites. Middle-class children, in general, were significantly more internal than lower-class children. "These results suggest that one important antecedent of a generalised expectancy that one can

control his own destiny is the perception of opportunity to obtain the material rewards offered in a culture". (Battle and Rotter, 1963, p.488). It was added that direct teaching of attitudes of internal vs. external control might also be involved.

To test the validity of this suggestion Orpen (1971) studied the comparison between the mean I-E scores of a Coloured sample and those of a White sample, two groups who are exposed to clearly different opportunities to obtain their culture's material rewards, as the Coloured minority group in South Africa is kept at the lowest step of the economic ladder by various discriminatory laws (Joshi, 1942; Marquard, 1962; Thompson, 1966). Furthermore, the intervening variable "direct teaching of attitudes of internal versus external control" was ruled out, as the subcultural norms of these two groups are alike in their relative emphasis on internal and external control: "The Coloured community is Western in most respects and shares the same general beliefs as the Whites as regards the Protestant ethic (control ideology) i.e. they both hold the same views about the relationships among ability, effort and success in society at large. Hence large differences in I-E control between White and Coloured samples were unlikely to be due to the direct teaching of different attitudes regarding control ideology." (Orpen, 1971, p.45). The fact of the Westernisation of the Coloureds also appears from writings by Patterson (1953), Marais (1957), van der Merwe (1962), and by Gurin et al (1969). Although this last mentioned study was done in the United States and was not concerned with Coloureds, but with Negroes, the author of the present study is of opinion that to some extent a comparison can be made: the Negroes in the U.S. are in a similar situation as the Coloureds in South Africa; they form a race which is different from Whites, but which is also living amongst Whites

and being discriminated against. Gurin et al remark that: "therefore, Negro students may endorse general cultural beliefs in the Protestant Ethic, just as strongly as would their White peers". (Gurin et al, 1969, p.42). And, indeed, no differences were found in their study between responses of Negroes and those of Whites on questions regarding Protestant Ethic beliefs.

In Orpen's (1971) study the mean I-E score of the White sample was significantly higher than the score of the Coloured sample, giving support to the suggestion that "among subjects from the same wider cultural background those who regard themselves as being denied the opportunity to obtain the material rewards offered in this wider culture tend to attribute what happens to them in their personal life to forces outside their control". (Orpen, 1971, p.47).

In the present study, similar outcomes as in the previous studies were expected, as the samples consisted of Coloured and White representatives, holding similar jobs, having different opportunities in society and sharing the same beliefs regarding the Protestant ethic. However, instead of the standard 29 item forced-choice I-E scale of Rotter, used in the abovementioned study, Gurin's (1969) scale was utilized, differentiating between two factors of the I-E concept, namely personal control and control ideology. The two samples and the various classes of people within the two samples were expected to score differently on the measures of I-E and personal control.

The development of Gurin's I-E scale is discussed below. As the original Rotter I-E scale appeared to be unable to tap all of the dimensions of the concept, Gurin et al (1969) decided to re-analyse the I-E concept and found that "internal control" is not a unitary dimension in the attitude structure of Negro college students, and that two distinct factors emerge.

The first factor represents a measure of an individual's "control ideology" and includes items with a third-person referent and determines the extent to which a person feels that generally man himself masters his future and that the rewards he obtains are caused by his own actions. The more an individual chooses the internal side of these items, the more he believes that success in life is dependent on one's own ability and the less he thinks that one just has to be lucky to be liked by certain people. Thus, he accepts the Protestant ethic ideology.

The second factor represents a measure of an individual's sense of "personal control", which resembles Rotter's concept of "internal control". It determines to what extent a person feels that he controls his own fate. A person who scores highly internal on these five items believes that his life lies in his own hands and that he can make his plans work, independent of chance or luck.

The sense of personal control is, for instance, defined by the claim that "what happens to me is my own doing", as opposed to "sometimes I feel that I don't have enough control over the direction my life is taking". One's general ideology is determined by, for example, the statement that "becoming a success is a matter of hard work, luck has little or nothing to do with it", as opposed to the external alternative that "getting a good job depends mainly on being in the right place at the right time".

Several studies have examined the use of the application of the abovementioned self-other distinction to samples of Negroes. It appeared that these Negroes indeed scored differently on the two measures of control, so that the distinction was significant. Also Gurin et al (1969) were convinced of the usefulness of the distinction, arguing that Negroes are likely to adopt the same control ideology

as Whites because of Westernisation, but that their sense of personal control over their lives often does not get the chance to develop as much as that of the Whites, because of racial discrimination. "Without the same experiences of discrimination and racial prejudice, Whites are less likely to perceive an inconsistency between cultural beliefs and what works for them. Therefore, Negroes may endorse general cultural beliefs in the Protestant ethic just as strongly as would their White peers; at the same time, they may express much less certainty that they can control the outcomes of their own lives." (Gurin et al., 1969, p.42).

As evidence for this statement, Gurin et al. refer to their study of subjects in job retraining programmes. They state that the Negro and White subjects reacted in the same way to items on control ideology, but that the Negroes' scores indicated a much lower sense of personal control than the scores obtained by the Whites. In another study on feelings of Negro youth, it appeared that a majority of about 75 to 80 per cent of the subjects reacted positively to questions regarding the Protestant Ethic ideology. However, about 50 per cent of the subjects seemed to be doubtful about the personal control they had over their own lives. Similar results were obtained in a study on high school dropouts.

As this type of study has merely concerned itself with the reactions to measures of I-E control by samples of Negroes and Whites, the findings and theory may be culture-bound and may be only valid within a certain sort of cultural setting, namely that of American Negroes and Whites. The present study is aimed, to some extent at least, at removing this possible limitation and increasing the generality of the underlying theory.

The Coloured Group in South Africa finds itself in a similar situation as the Negroes in America: they share the same cultural beliefs regarding the Protestant Ethic as their White peers, but they are prevented from obtaining their culture's material rewards as they are discriminated against. Therefore, we can expect Coloured groups to express just as much internality as White groups in responding to statements which measure control ideology; in contrast, we expect them to be less internal than their White peers in answering questions about their sense of control over their personal lives. These outcomes would then be in agreement with the results obtained in the studies on American Negroes and Whites by Gurin et al. (1969).

Gurin et al. found not only a difference in the proportion of Negroes who endorse the ideological and personal questions on I-E control, but their results further indicated that these two types of questions are differentially related to motivation and performance. It seemed to be mainly the personal control measure that operated significantly in motivation and performance. They concluded that the measures of personal control and control ideology rarely operate in the same way. "Students who have a high sense of personal control over their own lives also express heightened expectancies of success and self-confidence in their abilities for academic and job performance; they also aspire to jobs that are more prestigious, demanding and realistic in terms of their own abilities and interests, three characteristics of job aspirations that have been related to high achievement motivation in many studies in the achievement literature. In contrast, the students' beliefs about what generally determines success and failure have nothing to do with their self-confidence, personal expectancies, or aspirations. It is not surprising, therefore, that the total Internal-External Control scale, which includes items at both the personal and ideological

levels, predicts to these aspects of motivation either very weakly or not at all". (Gurin, Gurin, Lao and Beattie, 1969, p.43).

Like the students in the study by Gurin who scored high on personal control and expressed heightened expectancies of success and self-confidence in the abilities for job performance, we can expect workers who have a high sense of personal control, to have high self-confidence in their job performance. We can also expect these people to express a feeling of competence and ability to manage their jobs well.

As they stress the prestigious, demanding and realistic aspects of their jobs, we may hypothesise that they are therefore more concerned with work itself. Moreover, it does not seem likely that they will be very concerned with the extrinsic job aspects such as co-workers, supervision and pay, as these are "outside factors" and have nothing to do with the extent to which their jobs are demanding and realistic in terms of their own abilities.

Gurin et al. found that students with a high sense of personal control expressed higher self-confidence about job performance than those scoring low on personal control, and that they obtained higher grades and test scores than the others. It is likely that one can generalise from these students to workers: workers with a high sense of personal control may also express higher self-confidence than those scoring low on the measure of personal control and they may have a better job performance than the others. If this is true, we may suggest that they expect to be, and actually are, promoted more often than the others, as promotion is not only dependent on the opinion of their supervisors, but also upon their own success.

In view of the discussion on work itself and the argument on promotion, which are both intrinsic job aspects, it is suggested that

workers with a high sense of personal control may be more satisfied with the intrinsic job-aspects than with the extrinsic job-aspects.

Support for the validity of this suggestion is provided by Weissenberg and Gruenfeld (1968). They explored the relationship between job involvement and different aspects of job satisfaction. The concept of job involvement has been defined in terms of decision-making, feeling of success in one's job, good performance, work commitments, and has been related to aspiration-levels and job satisfaction and performance. Weissenberg and Gruenfeld used in their study job involvement as an indicator of job motivation. Their findings indicated that job involvement was significantly correlated with satisfaction with intrinsic job aspects such as recognition, achievement and responsibility. Although the relationships with satisfaction with work itself and advancement were not quite significant at the .05 level, the total score on satisfaction with intrinsic job-aspects was significantly related to job involvement. However, relationships between job involvement and satisfaction with extrinsic job-aspects, such as salary and co-workers, were not significant.

Hackman and Lawler (1971) also found that highly motivated employees tended to strive more for "higher order" need satisfaction, such as obtaining personal growth, prestige of the job, accomplishment, promotion, than did employees with low motivation.

In the study by Gurin et al. (1969), students with a high sense of personal control were described as having high job aspirations and motivation. Referring to the findings by Weissenberg and Gruenfeld, it is hypothesised that workers' feelings of personal control will be more highly correlated with their feelings of satisfaction with intrinsic job-aspects than with satisfaction with extrinsic job-aspects. The present study was designed to test the validity of this

hypothesis.

Finally, the discussion of the results obtained in the present study is concluded by an attempt to integrate the two main sections of the present study and several possible relationships between the social reference-group theory of job satisfaction and the concept of internal-external control are suggested and discussed.

HYPOTHESES

With reference to the literature and personal observation of the current social problems, the following relationships were investigated, using the listed hypotheses:

#### GENERAL HYPOTHESIS A

According to the reference-group theory, job satisfaction is determined largely by the degree to which the job situation meets the standards of the individual's reference-group. Thus it is important to take into account the standards and needs of Coloureds and Whites in general, and to establish whether there are differences between the two groups in this respect, or not.

Marais (1957) states that during the last eighty years the Coloured population in South Africa has continued to grow along with the European and that the Coloureds do not appear to differ from the Europeans today in anything except their poverty. Because of the considerable interaction between the Coloureds and Europeans in South Africa "it would be the natural destiny of the ambitious Coloured man to enter the society of his European peers", (Marais, 1957, p.281) were he not legally segregated from them.

A statement by Patterson (1953) concerning the attitude of the Coloureds towards the Natives also points to the probability that the Coloured associates himself with the Whites rather than with the Natives: Patterson states that an attitude, typical of many Cape Coloureds, is that they are not only racially different from the Native, but that they also feel superior to him. "They feel that the white blood flowing in the veins of many of them, and their membership of a civilised society, place them above the Native as a member of an uncivilised, or at least semi-barbarous race, which is still vaguely feared as such, and is historically the enemy of the Cape Coloureds as

of the Whites". (Patterson, 1953, p.337).

Taking these statements into consideration, it is suggested that there should not be a marked difference between the standards and needs of Coloureds and Whites in general.

Further evidence for the validity of this suggestion was found in research by van der Merwe (1962) and Orpen (1974b).

Taking into account the likelihood that Coloureds and Whites are similar with respect to personal standards and needs, "need-fulfilment" theory would predict that Coloureds and Whites should be equally satisfied in their jobs, provided they are engaged in similar jobs. This theory, namely, views job satisfaction as a direct result of the extent to which the job situation satisfies the individual's personal needs.

However, one also has to consider the difference between the general economic conditions of the White and the Coloured communities and the influence of these conditions on the job satisfaction and dissatisfaction of the workers, living in these communities.

The influence of community characteristics on job satisfaction has been discussed by Worthy (1950) and has been investigated by Katzell, Barrett and Parker (1961), Cureton and Katzell (1962), and Hulin (1966a; 1969).

Their findings indicated that "there was typically higher job satisfaction in situations that had the earmarks of small town culture than in those with urban characteristics", or: "the degree of urbanisation is inversely associated with job satisfaction", (Katzell, Barrett and Parker, 1961, p.68-69).

Hulin (1966a) in his article on "Effects of community characteristics on measures of job satisfaction", found that satisfaction

scores were negatively related to the prosperity of the community, and that pay satisfaction scores tended to be more negatively related to the prosperity of the community than did the other aspects of job satisfaction. He explained these results by pointing to the importance of the workers' frames of reference and the alternatives they have available; he saw the communal economic condition as having two purposes. It forms a frame of reference within which the workers compare their own situation with that of others. The low-level white-collar workers, used as subjects in Hulin's study, would evaluate their social and economic position as much better, living in a low-prosperity community, than they would if they lived in a rich community. Here again we see the relationship to Helson's (1948) theory: the worker in the poor community sees his place on the socio-economic ladder as relatively much higher than he would in a rich community, as the range of steps in the poor situation is relatively much "lower" than in the prosperous situation. In other words, the worker would view his place in the rich community to be near the bottom of the total range of steps. Therefore he would be much less satisfied living in the rich than in the poor community.

The second purpose of the economic condition of the community is that of indicating which alternatives are open to the workers. The amount of attractive alternatives available to the worker will be much larger in the rich community than in the poor one. In the poor community there may even be no alternatives for him at all. Therefore his satisfaction will be higher if he lives in the low-prosperous community than if he lives in the prosperous one.

Taken together, these findings show that it is important to include in research on job satisfaction the role played by the workers' frames of reference and alternatives available to them.

Looking at the present study, we find that the same situation as in the abovementioned study emerges, namely a difference between the prosperity levels of the communities to which the subjects belong. The general economic condition of the Coloured community is substantially lower than that of the White community. This means that the Coloured workers find themselves in a substantially better situation relative to other Coloureds than White workers (engaged in similar jobs as the Coloureds) relative to other Whites. Also, as Coloureds belong to a minority group, which is deprived of many things because of discrimination, and as Whites belong to a favoured majority group, the amount of employment opportunities for Coloureds is substantially smaller than that for Whites. Therefore, there are less attractive alternatives available to Coloured workers than to White workers.

Thus, taking into account these two facts and the results of previous research, which have been mentioned above, and provided Coloured and White workers compare themselves with their own racial groups and are engaged in similar jobs, we can expect Coloured workers to be generally more satisfied and less dissatisfied with their jobs than White workers.

Hence it is predicted that the Coloured sample of the present study will obtain significantly higher mean scores on satisfaction with the various aspects of his job and on overall job satisfaction and obtain a significantly lower score on job dissatisfaction than will the White sample.

General Hypothesis A : "Provided that Coloured and White workers compare themselves with their own racial groups and are engaged in similar jobs, Coloured workers are more satisfied and less dissatisfied with their jobs than are White workers."

General Hypothesis A was split up into five separate hypotheses, in order to predict the differences between the Coloured and the White samples regarding satisfaction with each of the five aspects measured by the Job Description Index, namely work itself, pay, supervision, co-workers and promotion. Furthermore, two hypotheses were formulated regarding overall job satisfaction and dissatisfaction.

As the discussions in the introduction of the present study can be regarded as justification for the set of reference-group hypotheses, references to previous studies which have already been mentioned, will be short.

#### HYPOTHESIS 1

Hulin and Smith (1965) found in their study on job satisfaction (the essential points of which have already been given in the introduction) that workers' satisfaction with work itself could be significantly predicted from the independent variables.

Hulin (1966a) undertook to relate the different aspects of job satisfaction to community variables. His subjects were all employees of a large company, which had a number of establishments in various communities with different prosperity levels. All employees were doing essentially similar jobs. However, because of the differences in community features, such as level of prosperity, they were likely to evaluate themselves against different frames of reference, provided by their communities. This was, indeed, the reason given by Hulin for his findings, one of which was that work satisfaction was negatively related to the prosperity of the community; the lower the level thereof, the higher the work satisfaction.

Bearing in mind that the prosperity of the Coloured community is substantially lower than that of the White community (see introduction), it is suggested that Coloureds (provided that they compare themselves with people of their own race) evaluate themselves against a different reference group than Whites. In the introduction it was also pointed out that the needs and standards of Coloureds and Whites are in general likely to be similar. Taken together, it is suggested that in the present study similar results will be obtained as in Hulin's (1966a) study, and it is predicted that the Coloured sample in the present study will obtain a significantly higher mean score on work satisfaction than will the White sample.

This leads up to hypothesis 1: "Provided that Coloured and White workers compare themselves with their own racial group and are engaged in similar jobs, Coloured workers are more satisfied with the kind of work they do than are White workers".

## HYPOTHESIS 2

The findings regarding pay satisfaction in the study by Hulin and Smith (1965) and Hulin (1966a) were the same as those for work satisfaction: these two areas of satisfaction seem to behave in the same way. Hulin and Smith point out in the discussion of their results: "Work and pay satisfaction were the only two dependent variables which showed consistent and significant relationships with the predictor variables". (p.216). And Hulin found, as for work satisfaction, a significant correlation between pay satisfaction and community variables.

Referring to the discussion under Hypothesis 1, it is predicted that the Coloured sample of the present study will obtain a significantly higher mean score on pay satisfaction than will the White sample.

This leads up to Hypothesis 2: "Provided that Coloured and White workers compare themselves with their own racial groups and are engaged in similar jobs, Coloured workers are more satisfied with their pay than are White workers".

## HYPOTHESIS 2A

One of Hulin's (1966a) predictions was that workers' satisfaction with pay should be more highly correlated with his community variables than the other aspects of job satisfaction.

"In a prosperous community a worker's pay level is made very clear to him by the goods and services purchased by other members of the community as compared to what he is able to purchase. Feelings toward this aspect of a worker's job should be affected more strongly by the community characteristics since his pay level and his identification as 'an employee of Company X' are the only aspects of the job that the

worker must take with him when he leaves the plant gate". (Hulin, 1966a, p.187). Hulin's prediction was only partially confirmed and therefore he concluded that pay satisfaction scores tended to be more negatively related to the prosperity of the community than did the other aspects of job satisfaction.

As the general economic condition of the Coloured community is substantially lower than that of the White community, a Coloured worker, earning the same salary as a White worker, is able to purchase more goods relative to other Coloureds, than is his White counterpart relative to other Whites. He is somewhere at the top of the Coloured salary scale and therefore earns more than his community members, whereas the same salary for a White man would come at the bottom of the White salary scale. Therefore the Coloured worker is better off relative to other Coloureds, than is the White worker in the same job and earning the same salary, -- relative to other Whites.

Hence, according to Hulin's (1966a) theory, we may predict that the Coloureds of the present sample will be more satisfied with their pay than with the other aspects of job satisfaction and that the Whites of the present sample will be less satisfied with their pay-level than with the other aspects of job satisfaction. Thus the difference between pay satisfaction of Coloureds and that of Whites should be greater than the differences between satisfaction of Coloureds and Whites with other aspects of their jobs.

This leads to Hypothesis 2A: "Provided that Coloured and White workers compare themselves with their own racial groups and are engaged in similar jobs, the difference between pay satisfaction of Coloureds and that of Whites is greater than the differences between satisfaction of Coloureds and satisfaction of Whites with other aspects of their jobs".

### HYPOTHESES 3 AND 4

Results obtained in previous research have indicated that "two areas of job satisfaction, namely satisfaction with supervision and satisfaction with co-workers, did not behave in the same manner as the satisfaction variables related to other aspects of the job." (Hulin, 1966a, p.191). From the results it appeared that while satisfaction with most aspects of a worker's job was affected by the characteristics of the community, reactions to other people on the job were relatively unaffected. Thus, it was concluded that whereas the influence of community characteristics on pay, work, and, sometimes, promotion satisfaction could be predicted significantly, the influence on satisfaction with co-workers and supervision could not be predicted significantly better than chance.

In both studies, however, only measures of workers' satisfaction with the different aspects of the job (work, pay, promotions, co-workers and supervision) were taken. However, no separate measures of overall job satisfaction and dissatisfaction (for instance by means of a self-rating scale) were taken.

Hulin and Smith (1965) commented as follows on the five aspects of job satisfaction being measured in their study: "No claim is made that these five aspects or areas are exhaustive or that they are orthogonal.(.....) In all probability they will not specify completely the general variate 'job satisfaction' in spite of the fact that they have been found so consistently." (Hulin and Smith, 1965, p.211).

The satisfaction measures used by Hulin (1966a) were taken from a survey controlled by the company in which the study was performed. The questionnaire was reported to generally display adequate convergent validity, but the discriminant validity tended to be less impressive.

"Nonetheless, it was felt that this instrument would yield a reasonable estimate of the overall job satisfaction of these work groups. the discrimination between the areas of satisfaction might not be as clear cut." (Hulin, 1966a, p.188). Thus, this questionnaire was developed by the company itself for its own needs and was used by this company only. These facts make it very likely that the obtained results and findings can only be applied to a very limited population, namely the workers of this company.

Furthermore, the fact that the questionnaire generally displayed adequate convergent validity and that the discriminant validity tended to be less impressive, throws doubt on its usefulness and the significance of the results obtained.

Had another, more validated measure of job satisfaction been used, other results might have been found. Also, in both studies it might have been useful to correlate overall job satisfaction and dissatisfaction with the independent variables used by Hulin and Smith (1965) and with the community characteristics used in Hulin's study (1966a). Had these correlations been very high, then all separate aspects of job satisfaction might have correlated with the independent variables. In that case it would have been concluded that all aspects of job satisfaction were related to the independent and the community variables and that thus not only high satisfaction with pay, work and promotion, but also with supervision and co-workers were related to unattractive community features.

If, in the case of the abovementioned studies, measures of overall job satisfaction and dissatisfaction had been taken, the results might have been significant at the .05 level only, or might not have been significant at all and that might have been the reason for a partial relationship between the different aspects of job

satisfaction and community features only.

Thus, if measures of overall job satisfaction and dissatisfaction are very significant (at the .01 level), we may expect all aspects of job satisfaction to be related to community characteristics. In that case we can expect not only high satisfaction with work, pay and promotion, but also with supervision and co-workers to be related to unattractive community features. Then we can expect Coloured workers to be more satisfied with their supervisors and co-workers than White workers, provided they compare themselves with their own racial groups and provided that their overall job satisfaction is significantly higher, and their overall job dissatisfaction is significantly lower than that of the Whites.

Another reason for this expectation is that, as the general economic condition of the White community is substantially higher than that of the Coloured community, White workers are substantially worse off relative to other Whites than are Coloured workers (engaged in similar jobs and earning the same salary) relative to other Coloureds. This implies that the White workers will be more envious of the positions of their supervisors; they will criticize them more, and there will be more competition amongst the White workers than amongst the Coloured workers. Hence they will express less satisfaction with supervision and co-workers than the Coloured workers. In other words, provided that the White and Coloured workers of the present study compare themselves with their own racial group, then "reference-group" theory predicts that the Coloured sample of the present study will obtain a significantly higher mean score on satisfaction with supervision than the White sample.

The confirmation of this prediction would then be in line with

Hulin's findings in a later study on "job and life satisfaction" in 1969. The results of that study indicated a significant relationship between community variables and satisfaction with co-workers, which was in contradiction with previous findings, and which lends support to the suggestion that measures of job satisfaction in Hulin's former study were not sufficient, resulting in different behaviour of the various aspects of job satisfaction.

Taken together, these arguments lead up to Hypotheses 3 and 4:

○ Hypothesis 3: "Provided that Coloured and White workers compare themselves with their own racial groups and are engaged in similar jobs, Coloured workers are more satisfied with their supervision than are White workers.

and Hypothesis 4: "Provided that Coloured and White workers compare themselves with their own racial groups, and are engaged in similar jobs, Coloured workers are more satisfied with their co-workers than are White workers".

### HYPOTHESIS 5

Correlating different aspects of job satisfaction with eight independent variables, Hulin and Smith (1965) found that the multiple correlation associated with promotion satisfaction was significant for one of the two samples of male workers ( $p < .01$ ) and for one of the two samples of female workers. Thus, this significant, although not always consistent, relationship makes it likely that community characteristics (environmental situations) exercise a certain influence on promotion satisfaction.

However, in the present study not only the question of reference-groups influences the responses of the subjects, but especially matters of politics may influence their reactions on questions regarding promotion opportunities.

Coloureds are "members of a deprived minority group, who are effectively kept at the bottom of the social structure by a set of discriminatory laws". (Orpen, 1974b, p.3). "Whites, on the other hand, are members of a 'favoured' majority group who are in effective control of the country and who are protected from competition from Blacks in most areas of life". (Orpen, 1974b, p.3).

South African policies regarding the Coloureds are explained by Carter (1958) and Marquard (1962): "The group of non-Europeans which has felt the shock of negative apartheid legislation most acutely is the Coloured. This is because their status has been traditionally higher than that of the Bantu, and the relations with Europeans, particularly Afrikaners, closer". (Carter, 1958, p.75). "Although many of the Coloured are still farm labourers, they also include numerous artisans and some professional people. On the whole, however, their economic status is low. Socially, as well as politically, they

are perhaps in the most difficult position of any group in the Union, being caught between the exclusiveness of the Whites, with whom they would like to associate themselves, and the rising power of the African, with whom they feel little in common". (Carter, 1958, p.19).

"Although the Coloured people are, on the whole, cheerful even to fecklessness, educated men and women among them feel frustrated and embittered because they realise most clearly the colour-bar limitations that prevent them and their children from attaining good positions.

Intelligent and hardworking as many of them are, they know that these characteristics will not ensure them an entry into most professional ranks, and even into many skilled occupations". (Marquard, 1962, p.72).

Thus, this discriminative policy induces that opportunities for advancement are more numerous for White workers than for Coloured workers. Provided that Coloured workers use their own racial group as their point of reference, then they should regard themselves, being discriminated against, as having fewer opportunities for promotion than Whites, as they realise the limitations laid upon them.

Therefore, it is suggested that in this case influence coming from political situations might be more pervasive than that from the workers' reference groups, and that a way of thinking must be adopted, which is different from that indicated by General Hypothesis A, that Coloured workers are generally more satisfied with their jobs than are White workers. Generally, yes, but it might not be so in the case of promotion opportunities, as these, in contrast with work, pay, supervision and co-workers aspects, are involved with politics, something which may influence one's life very deeply. Hence it is predicted that the Coloured sample of the present study will obtain a significantly lower mean score on satisfaction with promotion than will the White sample.

This leads up to Hypothesis 5: "Provided that Coloured and White workers compare themselves with their own racial groups and are engaged in similar jobs, Coloured workers are less satisfied with their opportunities for promotion than are White workers".

HYPOTHESES 6 AND 7

Taking into account the reference-group theory (implying that job satisfaction is determined largely by the degree to which the job situation meets the standards of the individual's reference-group) and referring to the foregoing discussions under Hypothesis 1 to 5 (stating, amongst other things, that Coloureds and Whites generally have similar standards and needs, that the general economic condition of the Coloured community is substantially lower than that of the White community) and referring to previous research (which has shown satisfaction to be negatively related to the prosperity of the community) it is predicted that the Coloured sample of the present study will obtain a significantly higher mean score on overall job satisfaction and a significantly lower mean score on job dissatisfaction than will the White sample.

Hypothesis 6: "Provided that Coloured and White workers compare themselves with their own racial groups and are engaged in similar jobs, Coloured workers are overall more satisfied with their jobs than are White workers";

and Hypothesis 7: "Provided that Coloured and White workers compare themselves with their own racial groups and are engaged in similar jobs, Coloured workers are overall less dissatisfied with their jobs than are White workers".

GENERAL HYPOTHESIS B

In the following section of the present study Runciman's (1966) terminology was adopted:

A "membership (reference-) group is a group to which the individual belongs and with which he may compare himself.

A "lower comparative reference-group" is a group to which the individual does not belong but with which he compares himself. This group belongs to a lower class than that to which the individual himself belongs.

A "higher comparative reference-group" is likewise a group of which the individual is not a member, but with which he compares himself. This group belongs to a higher class than that to which he himself belongs.

In the introduction, it has already been pointed out that every individual develops certain attitudes whilst coping with his life-problems, and that he shows a strong need for self-evaluation (Festinger, 1954), for evaluation of his attitudes against the standards and norms of the group with which he compares himself, or his reference-group.

Thus, every worker also forms certain attitudes and expectations regarding his job. Hulin and Smith (1965; see introduction) have described the amount of job satisfaction as being dependent on the amount of differences existing between the worker's job-expectations and the return from the job (environmental return).

If a worker compares himself with a higher comparative reference-group, he will form relatively high expectations concerning his job, as compared to a worker in a similar job who uses as his point of reference his membership group or a lower comparative reference-group.

Thus, the difference between the former worker's expectations regarding his job and his actual job will be greater than the difference between the latter worker's job-expectations and his actual job (= expectation and environmental return). Hence we may expect the former worker to be less satisfied with his job than the latter worker: because of their acceptance of different standards (which they have derived from their reference-groups) the two workers approach their jobs with different sets of expectations, which influence their levels of job satisfaction.

Empirical support to this point of view was given by a study on "Status Congruency as a Predictor of Job Satisfaction and Life Stress" by Erickson, Pugh and Gunderson, (1972). The purpose of their study was to find out whether "individuals who are in step with peers in their occupational group, perceive life situations differently from those who, in their jobs, are either ahead of or behind their peers". (Erickson, Pugh and Gunderson, 1972, p.523). As a measure of "status congruency" the subject's position in his occupational group was determined, while taking into account his level of advancement, job experience, age, and his marital status. A significant relationship was found between scores on the measure of job satisfaction and on that of status congruency.

Thus, if a worker uses as his reference-group his membership group (e.g. a middle-class worker who compares himself with other middle-class workers) he can be expected to consider himself as being more "in step with his peers" and to score higher on a "status congruency" measure, than a worker who uses as his point of reference a higher comparative reference-group (e.g. a middle-class worker who compares himself to upper-class workers). Thus, the former worker will be more satisfied with his job than the latter worker.

Form and Geschwender (1962) demonstrated that manual workers in an industrial community, evaluate their jobs in relation to the occupational position of their parents and brothers who form their reference-groups. The results of their study indicated that workers who achieved an occupational position higher than that of their fathers and brothers (and who thus had "outgrown" the class to which their fathers and brothers belonged, resulting in their use of a lower comparative reference-group) scored significantly higher on the measure of job satisfaction than did workers who had not achieved that position. NB

Relating job satisfaction and occupational level of workers to that of their fathers showed that the difference between group 1 (workers' occupation lower than fathers' occupation) and group 2 (workers' occupation the same as father's occupation), was significant, as well as the difference between group 1 and group 3 (workers' occupation higher than fathers' occupation). Relations between job satisfaction and occupational level of workers and that of their brothers showed that the difference between group 1 (occupation level lower than that of brothers) and group 3 (occupational level higher than that of brothers) NB was significant, as well as the difference between group 2 (occupation level same as that of brother) and group 3.

Thus, this study provides evidence that the amount of job satisfaction experienced by a worker is dependent on the occupational level he reaches relative to his social reference-group. Taking together, the results of the abovementioned studies, it is predicted that the workers of the present study who compare themselves with a higher comparative reference-group will obtain significantly lower mean scores on satisfaction with various aspects of their jobs and on overall job satisfaction and obtain a significantly higher score.

on overall job dissatisfaction than the workers who compare themselves with their membership group or with a lower comparative reference-group.

This leads up to General Hypothesis B: "Workers who compare themselves with a higher comparative reference-group are less satisfied with their jobs than are workers who compare themselves with their membership reference-group or with a lower comparative reference-group, provided that all these workers are engaged in similar jobs".

The scores on the different aspects of the Job Description Index were examined for Coloureds and Whites separately, as (see the discussion above) the two races have different reference-groups. This is caused by the differences between Coloured and White communities, between their levels of prosperity and between the numbers of alternatives open to Coloureds and Whites.

Peoples' frames of reference contain different variables, such as one's aspirations, expectations, self-regard, etc. Stephenson (1957) found that Black students express high levels of occupational aspiration, whereas their occupational plans and expectations are much lower than that of White students. Here the high aspirations (the "ideal") clash with their low expectations (= reality), which may result in very low satisfaction. Haggstrom (1964) pointed out that non-Whites tend to have lower self-regard than Whites.

Because of these differences in frames of reference different response-patterns may appear when Coloureds and Whites are questioned about their job satisfaction.

Therefore General Hypothesis B was split up into two hypotheses, in order to test the hypothesis for the Coloured sample and for the White sample separately; we expect there to be differences in job satisfaction and dissatisfaction not only between the groups of

Coloured and White workers, but also within the two samples, depending on whether the workers regard themselves as belonging to a lower-, middle- or upper-class and depending on what class they use as their point of reference.

#### GENERAL HYPOTHESIS B1

It is predicted that the Coloured workers of the present study, who compare themselves with a higher comparative reference-group, will obtain significantly lower mean scores on satisfaction with various aspects of their jobs and on overall satisfaction and obtain a significantly higher score on overall job dissatisfaction than will the Coloured workers who compare themselves with their membership group or with a lower comparative reference-group.

"Coloured workers who compare themselves with a higher comparative reference-group, are less satisfied with their jobs than are Coloured workers who compare themselves with their membership group, or with a lower comparative reference-group, provided that all these workers are engaged in similar jobs".

#### GENERAL HYPOTHESIS B2

It is predicted that the White workers of the present study, who compare themselves with a higher comparative reference-group, will obtain significantly lower mean scores on satisfaction with various aspects of their jobs and on overall job satisfaction and will obtain a significantly higher mean score on job dissatisfaction than will the White workers who compare themselves with their membership group, or with a lower comparative reference-group.

"White workers who compare themselves with a higher comparative

reference-group, are less satisfied with their jobs than are workers who compare themselves with their membership group, or with a lower comparative reference-group, provided that all these workers are engaged in similar jobs".

A worker who compares himself with a higher comparative reference-group, will regard the norms and standards prescribed by his own social environment in which he moves around to be lower than those of his reference-group, and he will thus, because he really "belongs" to that environment and not to his highly valued reference-group, have a lower level of favourable perception and perceive the status of his job as lower than he would if he compared his own norms and standards with those held by his membership group or a lower comparative reference-group. In this way his perception of his job-status determines his level of job satisfaction.

Inkeles (1960), for instance, related workers' job satisfaction to their perception of the overall status of their jobs. The results showed that those holding top positions and therefore perceiving their jobs as having high-status, were more job satisfied than those occupying lower positions. A similar relationship seemed to exist between perceived job-status and satisfaction with aspects of jobs, such as pay.

Thus, general hypotheses B1 and B2 were each split into five separate hypotheses, in order to test the prediction of significant differences in aspects of job satisfaction between the various classes of workers with certain reference groups.

HYPOTHESIS 8a

Many studies have explored the influence of different frames of reference on workers' job satisfaction. Centers and Bugental (1966) for instance, investigated this influence whilst using subjects from different occupational levels. So did Doll and Gunderson (1969) and Armstrong (1971). Hulin's study (1966) explored the influences from community characteristics on his subjects' job satisfaction. Finally, Hulin (1964), Waters and Waters (1969), Wild (1970) and Williamson and Karras (1970) were concerned with job satisfaction of female workers and with the difference between job satisfaction of male and female subjects.

Some studies have included the influences of different social levels on job satisfaction. Very few studies, however, have considered the relative importance of the class (for example and upper-class or high-status group), with which a worker from another class (e.g. a lower-class or low-status group), compares himself, and the importance of the difference between the value-systems of these classes.

Friedlander (1966) was one of the few to investigate and compare job satisfaction among low-, medium- and high-status groups, and between white-collar and blue-collar occupational groups. The purpose of his study was, amongst other things, "to account for any differences in the importance of environmental stimuli through a knowledge of the socially and the occupationally stratified groups to which the worker belongs". (Friedlander, 1966, p.437).

Friedlander suggested, with reference to Porter's study (1963), that workers from different groupings were likely to evaluate various aspects of their work environment differently. The white- and blue-collar groups appeared to have different value-systems. Significant

differences were also found between the value-systems of low-, medium- and high-status groups, if the worker's occupational group was considered at the same time. Comparing the white-collar with the blue-collar group, it was found that white-collar personnel attach more importance to the personal and content value of their work than blue-collar personnel. Comparing high-status with middle-status groups, it was found, amongst other things, that the high-status blue-collar group valued work content more highly than the medium-status blue-collar group. This suggests that high-status or upper-class groups attach more importance to work content than do lower-status or lower-class groups. Thus, if a lower-class worker uses as his point of reference a middle- or upper-class, he will adopt the standards and norms of that class and form higher expectations regarding his job, than he would if he used his own class as his reference-group. Thus, his expectations will be less easily fulfilled and he will be less satisfied.

Other empirical support for the validity of this suggestion is provided by Hulin's study (1966a), finding that satisfaction scores were negatively related to the prosperity of the community (see introduction). However, a deficit in his study was that he supposed, without further investigation, that all his subjects used their own communities, in which they themselves lived, as their reference-groups. Maybe this was indeed the case in his study. It might, however, very well have been that his subjects did not use their own communities as their frames of reference, but pictured themselves in communities superior to their own communities, and used these as their frames of reference. If this was the case, then they would have adopted the norms and standards prevailing in these "superior" communities and

the relationship between satisfaction and community characteristics would have been the other way around: A worker, living in a low-prosperity community, but using as his point of reference a high-prosperity community (and thus adopting the norms and standards of that community and forming high expectations) will be less satisfied than he would be if he used his own community as his point of reference. If he lives in a slum, in a poor community, or in a community in which there is a great deal of unemployment, he will be very dissatisfied when he compares his situation with that in more prosperous communities, which have alternatives available that offer a better life.

In terms of the reference-group theory, job satisfaction is determined largely by the degree to which the job satisfaction meets the standards of the individual's reference-group. In the case of the abovementioned worker, the difference between job situation and the reference-groups norms will be large, resulting in little job satisfaction. Taking together Friedlander's findings (high-status groups valuing work content more highly than medium-status groups) and the discussion above, it is predicted that the Coloured workers of the present study who compare themselves with a higher comparative reference-group, will obtain a significantly lower mean score on work satisfaction than will the Coloured workers who compare themselves with their membership group or with a lower comparative reference-group.

This leads up to Hypothesis 8a: "Coloured workers who compare themselves with a higher comparative reference-group are less satisfied with the kind of work they do than are Coloured workers who compare themselves with their membership group, or with a lower comparative reference-group, provided that all these workers are engaged in similar jobs".

HYPOTHESIS 8b

In line with the findings and discussions under hypothesis 8a, we make the same prediction concerning work satisfaction of White workers: the White workers of the present study who compare themselves with a higher comparative reference-group, will obtain a significantly lower mean score on work satisfaction than will the White workers who compare themselves with their membership group, or with a lower comparative reference-group.

This leads up to hypothesis 8b: "White workers who compare themselves with a higher comparative reference-group are less satisfied with the kind of work they do than are White workers who compare themselves with their membership group, or with a lower comparative reference-group, provided that all these workers are engaged in similar jobs".

HYPOTHESIS 9a

In several studies (Hulin and Smith, 1965; Hulin 1966a), it has been found that two areas of job satisfaction, namely satisfaction with work and satisfaction with pay, behaved most often in the same way. These two areas of satisfaction were more frequently associated with community characteristics than other areas

Moreover, the results of a study by Inkeles (1960) indicated a clear positive correlation between the perceived overall status of occupations and the experience of satisfaction in them. This seemed to hold as well for the relation between satisfaction and the components of the job, such as the pay received. A lower-class worker, using a middle- or upper-class as his reference-group, will perceive the status of his job as lower than he would if he used his own class as a reference-group.

Taking the abovementioned findings together, we predict that the Coloured workers of the present study, who compare themselves with a higher comparative reference-group, will obtain a significantly lower mean score on pay satisfaction than will the Coloured workers who compare themselves with their membership group, or with a lower comparative reference-group.

This leads up to hypothesis 9a: "Coloured workers who compare themselves with a higher comparative reference-group are less satisfied with their pay than are Coloured workers who compare themselves with their membership group, or with a lower comparative reference-group, provided that all these workers are engaged in similar jobs".

HYPOTHESIS 9b

In line with the findings under hypothesis 9a, and with the discussions on reference-group theory mentioned before, a similar prediction is made concerning pay satisfaction of White workers: the White workers of the present study who compare themselves with a higher comparative reference-group, will obtain a significantly lower mean score than on pay satisfaction than will the White workers who compare themselves with their membership group or with a lower comparative reference-group.

This leads up to hypothesis 9b: "White workers who compare themselves with a higher comparative reference-group are less satisfied with their pay than are White workers who compare themselves with their membership group, or with a lower comparative reference-group, provided that all these workers are engaged in similar jobs".

HYPOTHESIS 10a

In this particular case (satisfaction with supervision) we expect the influence of reference-groups on satisfaction to work in a way different from the other cases.

In his study on "Favourable self-perception, perceived supervisory style and job satisfaction", Thompson (1971) found that subjects scoring high on the scale of favourable self-perception regarded the supervision by their boss as less supportive and were consequently less satisfied with his supervisory style than those scoring low on the favourable self-perception scale. It was assumed that "an individual's background of experience and appraisal of abilities would combine to form a measure of his self-perception and, hence, an indication of the types of treatment the individual would expect in the superior-subordinate relationship". (Thompson, 1971, p.349). The relationship between supervisory style of the boss and favourable self-perception was, indeed, proven to be significant. We can expect lower-class workers who use an upper-class as their point of reference, to have a lower level of self-perception than they would have if they used their own class as their reference-group. Hence they will be, according to Thompson, more likely to perceive the supervisory style of their boss as supportive and report higher levels of satisfaction with supervision than those using a lower class as their point of reference.

It is predicted that the Coloured workers of the present study, who compare themselves with a higher comparative reference-group, will obtain a significantly higher mean score on satisfaction with their supervision than will the Coloured workers who compare themselves with

their membership group or with a lower comparative reference-group, provided that all these workers are engaged in similar jobs.

Hypothesis 10a: "Coloured workers who compare themselves with a higher comparative reference-group are more satisfied with their supervision than are Coloured workers who compare themselves with their membership group or a lower comparative reference-group, provided that all these workers are engaged in similar jobs.

#### HYPOTHESIS 10b

In line with the results of Thompson's study, discussed under hypothesis 10a, a similar prediction is made concerning supervision satisfaction of White workers: the White workers of the present study, who compare themselves with a higher comparative reference-group, will obtain a significantly higher mean score on satisfaction with supervision than will the White workers who compare themselves with their membership group or with a lower comparative reference-group.

Hypothesis 10b: "White workers who compare themselves with a higher comparative reference-group are more satisfied with their supervision than are White workers who compare themselves with their membership group or with a lower comparative reference-group, provided that all these workers are engaged in similar jobs".

In view of the abovementioned arguments, it is predicted that the Coloured workers of the present study, who compare themselves with a higher comparative reference-group will obtain a significantly lower mean score on satisfaction with co-workers than will the Coloured workers who compare themselves with their membership group or with a lower comparative reference-group.

Hypothesis 11a: "Coloured workers who compare themselves with a higher comparative reference-group are less satisfied with their co-workers than are Coloured workers who compare themselves with their membership group or with a lower comparative reference-group, provided that all these workers are engaged in similar jobs".

#### HYPOTHESIS 11b

In line with the discussion under hypothesis 11a, a similar outcome is predicted for co-worker satisfaction of White workers: the White workers of the present study who compare themselves with a higher comparative reference-group will obtain a significantly lower mean score on satisfaction with their co-workers, than will the White workers who compare themselves with their membership group or with a lower comparative reference-group.

Hypothesis 11b: "White workers who compare themselves with a higher comparative reference-group are less satisfied with their co-workers than are White workers who compare themselves with their membership group or with a lower comparative reference-group, provided that all these workers are engaged in similar jobs".

HYPOTHESIS 12a

Although the findings of many studies (Hulin and Smith, 1965; Hulin, 1966a) did not consistently point to a significant relationship between community characteristics and promotion satisfaction, many findings did show a significant relationship.

Hence we predict, in line with the hypotheses regarding the other job aspects, that the Coloured workers of the present study who compare themselves with a lower comparative reference-group, will obtain a significantly lower mean score on promotion satisfaction than will the Coloured workers who compare themselves with their membership group, or with a lower comparative reference-group.

Hypothesis 12a: "Coloured workers who compare themselves with a higher comparative reference-group are less satisfied with their opportunities for promotion than are Coloured workers who compare themselves with their membership group or with a lower comparative reference-group, provided that all these workers are engaged in similar jobs".

HYPOTHESIS 12b

In line with the discussion under hypothesis 12a, a similar outcome is predicted for hypothesis 12b: the White workers of the present study who compare themselves with a higher comparative reference-group will obtain a significantly lower mean score on promotion than will the White workers who compare themselves with their membership group, or with a lower comparative reference-group.

Hypothesis 12b: "White workers who compare themselves with a higher comparative reference-group are less satisfied with their

opportunities for promotion than are White workers who compare themselves with their membership group or with a lower comparative reference-group, provided that all these workers are engaged in similar jobs".

HYPOTHESIS 13a

Social reference-group theory explains that the extent to which the job situation meets the norms and standards of the individual's reference-group is positively related to his level of job satisfaction.

A lower-class worker, who adopts the norms and standards of an upper-class and who, thus, uses this class as his point of reference, will form relatively higher expectations concerning his job than he would if he used his own class as his reference-group. Thus there will be a great difference between his expectations regarding the job and his actual job. Hulin and Smith (1965) would then predict that his level of job satisfaction would be quite low.

Furthermore, Erickson, Pugh and Gunderson (1972) found that the more an individual regards himself to be in step with his peers (= his own reference-group), the higher will be his level of job satisfaction. A lower-class worker who compares himself with an upper-class, will not regard himself to be very much in step with his reference-group. This will result in a lower level of job satisfaction and a higher level of job dissatisfaction than that of a worker using his own class as a point of reference.

In addition, Form and Geschwender (1962) found that the greater the amount of upward mobility a worker has experienced relative to his social references, the more satisfaction he will feel. Thus, a worker who has changed from a lower-class level to a middle- or upper-class level, will be very satisfied when he compares himself with his former class. However, a worker who has come down from an upper- to a lower-class level, will be quite dissatisfied, comparing himself with his original level.

Taken together, these discussions and findings lead to the prediction that the Coloured workers of the present study, who compare themselves with a higher comparative reference-group will obtain a significantly lower mean score on overall job satisfaction than will the Coloured workers who compare themselves with their membership group, or with a lower comparative reference-group.

Hypothesis 13a: "Coloured workers who compare themselves with a higher comparative reference-group are overall less satisfied with their jobs than are Coloured workers who compare themselves with their membership group or with a lower comparative reference-group, provided that all these workers are engaged in similar jobs".

#### HYPOTHESIS 13b

In line with the discussions under hypothesis 13a, a similar prediction is made concerning the overall satisfaction of Whites: the White workers of the present study who compare themselves with a higher comparative reference-group will obtain a significantly lower mean score on overall job satisfaction than will the White workers who compare themselves with their membership group or with a lower comparative reference-group.

Hypothesis 13b: "White workers who compare themselves with a higher comparative reference-group are overall less satisfied with their jobs than are White workers who compare themselves with their membership group or with a lower comparative reference-group, provided that all these workers are engaged in similar jobs".

#### HYPOTHESIS 14a

In line with the findings, discussions and predictions under hypothesis 13a and b, a similar prediction is made concerning overall job dissatisfaction of Coloureds and Whites: the Coloured workers of the present study who compare themselves with a higher comparative reference-group, will obtain a significantly higher score on overall dissatisfaction than will the Coloured workers who compare themselves with their membership group or with a lower comparative reference-group.

Hypothesis 14a: "Coloured workers who compare themselves with a higher comparative reference-group, are overall more dissatisfied with their jobs than are Coloured workers who compare themselves with their membership group or with a lower comparative reference-group provided that all these workers are engaged in similar jobs".

#### HYPOTHESIS 14b

It is predicted that the White workers of the present study who compare themselves with a higher comparative reference-group will obtain a significantly higher score on overall job dissatisfaction than will White workers who compare themselves with their membership group or with a lower comparative reference-group.

Hypothesis 14b: "White workers who compare themselves with a higher comparative reference-group are overall more dissatisfied with their jobs than are White workers who compare themselves with their membership group, or with a lower comparative reference-group, provided that all these workers are engaged in similar jobs".

As the discussions in the introduction of the present study can be regarded as justifications for the set of internal-external hypotheses, references to previous studies which have already been mentioned will be short.

#### HYPOTHESIS 15

Battle and Rotter (1963) investigated the influence exerted by a person's social class and his ethnic group membership, which they regarded as two important personality aspects, on his feeling of internal versus external control of reinforcements. Their results indicated an interaction between these three variables: lower-class Negroes were significantly less internal than lower-class Whites and middle-class Negroes and Whites. The most significant difference turned out to be that between the middle-class White and the lower-class Negro; here the social class as well as the ethnic group membership of the subjects were different and therefore both influenced the variable of internal-external control. This greater externality among Negroes was explained in terms of the impediments they may encounter when striving for certain goals.

Likewise, Lefcourt and Ladwig (1966a) found significant differences between I-E scores of Negroes and Whites, who were comparable regarding social class, age, and intelligence. The Negro subjects were significantly more external ( $M = 8,97$ ) than the Whites ( $M = 7,87$ ). They commented that: "... it would seem likely that segregation and discrimination facilitate the growth of an external orientation. They deny positive reinforcements to Negroes despite individual achievements, thus providing the kind of experience necessary for the development and maintenance of generalised expectancies of external control".

(Lefcourt and Ladwig, 1965a, p.380).

Lefcourt and Ladwig (1966) measured the feelings of two comparable samples of Negroes and Whites on the scales of powerlessness and normlessness, which have been described by Seeman (1959) as two components of alienation. Significant differences were found between the mean scores of Negroes and Whites on both scales.

Finally, Strodtbeck (1958) related his concept of "mastery", which seems similar to the internal-external control dimension, to the variables of nationality and social class. He differentiated Jewish middle- and upper-class subjects from lower-class Italians on the basis of his variable.

Taken together, these results indicate that ethnic group membership is highly related to the personality variable "internal versus external" control of reinforcements.

One of the findings in Battle and Rotter's (1963) study indicated that the group of lower-class Negroes was more external than all other groups. It was suggested that "the middle-class Negro in this community might be raised to accept the white cultural beliefs in responsibility and opportunity", and that "one important antecedent of a generalised expectancy that one can control his own destiny is the perception of opportunity to obtain the material rewards offered in a culture".

(Battle and Rotter, 1963, p.488).

The validity of this suggestion was borne out by the empirical findings of a study by Orpen (1971) investigating the relationship between Internal versus External control and perceived discrimination. The mean I-E scores of three different groups, namely Coloured clerks, Coloured manual workers and White clerks, were compared and the subjects were given a self-rating scale of "perceived discrimination".

In order to be able to test the validity of the abovementioned suggestion, the three groups of subjects had to have different opportunities to obtain their culture's material rewards, but their cultural norms had to be alike in their relative emphasis on internal and external control. This was the case in the study concerned, as the samples were taken from the population in South Africa, where the Coloured minority group is effectively kept at the bottom of the social structure by a set of discriminatory laws. Joshi (1942) makes the following remarks about the Coloureds: "The Coloureds are a particularly improvident race. They are mostly field and domestic workers. Some of them work in shops factories and offices. (.....) They do small housebuilding work, but colour legislation is a grave impediment to their economic progress and weighs them down". (Joshi, 1942, p.32). Similar statements regarding the social situation of the Coloureds in South Africa have been made by Marquard (1962; see introduction).

Thus, as the Coloured population in South Africa has less opportunities to participate fully in the White-controlled economy, the first requirement (different opportunities to obtain the culture's material rewards) was met. Also the second requirement (similar subcultural norms) was met, as "the Coloured community is Western in most respects and shares the same beliefs as the Whites as regards the Protestant ethic (control ideology), i.e. they both hold the same views about the relationships among ability, effort and success in society at large". (Orpen, 1971, p.45; also Marais, 1957; van der Merwe, 1962). Consequently it was concluded that "large differences in I-E between White and Coloured samples were unlikely to be due to the direct teaching of different attitudes regarding control ideology", (Orpen, 1971, p.45), a factor which was supposedly influencing the

results of the study by Battle and Rotter (1963).

In the study by Orpen (1971) this variable (which was uncontrolled in the abovementioned study) was eliminated by the choice of the population. The results of his study indicated that the White clerks regarded themselves as least and the Coloured clerks as most discriminated against. The Coloured manual group occupied an intermediate position.

The results indicated that the mean I-E scores of the White clerical group was significantly higher than that of the Coloured manual group, whose mean score, in turn, was significantly higher than that of the Coloured clerical group. Thus, these findings provide evidence for the suggested relationship between I-E control and perceived discrimination. "Among subjects from the same wider cultural background those who regard themselves as being denied the opportunity to obtain the material rewards offered in this wider culture tend to attribute what happens to them in their personal life to forces outside their control." (Orpen, 1971, p.47).

In line with these findings it is predicted that the Coloured sample of the present study will obtain a significantly lower mean score on internal control on the I-E scale than will the White sample.

Hypothesis 15: "Other things being equal, Coloureds are less internally-orientated than Whites".

HYPOTHESES 16a and 16b

As has already been mentioned, the results of various studies have indicated differences in externality, not only among different races, but also among different social classes. Battle and Rotter (1963) found that lower-class Negroes were significantly more external than middle-class Negroes.

Strodtbeck (1958) found similar differences between Jewish middle- and upper-class subjects and lower-class Italians. These differences were caused to a larger extent by factors of social class than by difference in nationality. "In all of the reported ethnic studies, groups whose social position is one of minimal power either by class or race tend to score higher in the external-control direction. Within the racial groupings, class interacts so that the double handicap of lower-class and 'lower-caste' seems to produce persons with the highest expectancy of external control". (Lefcourt, 1966, p.212).

Comparing the different social classes of the present study with each other, we predict that the lower-class Coloureds will obtain a significantly lower mean score on internal control on the I-E scale than will the middle-class Coloureds, and the middle-class Coloureds, in turn, will obtain a significantly lower mean score on internal control than will the upper-class Coloureds.

Likewise it is predicted that the lower-class Whites of the present study will obtain a significantly lower mean score on internal control on the I-E scale than will the middle-class Whites and the middle-class Whites, in turn, will obtain a significantly lower mean score on internal control than will the upper-class Whites.

Hypothesis 16a: "Other things being equal, lower-class Coloureds are less internally-orientated than middle-class Coloureds, and middle-class Coloureds, in turn, are less internally-orientated

than upper-class Coloureds".

and hypothesis 16b: "Other things being equal, lower-class Whites are less internally-orientated than middle-class Whites and middle-class Whites, in turn, are less internally-orientated than upper-class Whites".

HYPOTHESIS 17

It has been shown by several studies (Strodtbeck, 1958; Battle and Rotter, 1963; Lefcourt and Ladwig, 1965a; Orpen, 1971) that social class and ethnic group membership interact with the personality variable "internal versus external" control of reinforcements. All these studies used an I-E scale, which contained items on personal control, as well as on control ideology. Most findings in these studies were significant, such as the finding that lower-class Negroes are significantly more external than lower-class Whites or middle-class Negroes and Whites (Battle and Rotter, 1963).

In 1969, however, Gurin et al. found that different measures were to be taken of personal control and control ideology: one measure of the extent to which a person believes that he can control what happens in his own life and another measure of the respondent's ideology or general beliefs about the role of internal and external forces in determining success and failure at large. Gurin et al. argued that Negroes may score equally internal as Whites on the control ideology scale, as they may share the same general cultural beliefs in the Protestant Ethic. However, because of discrimination and racial prejudice, they may find that these beliefs cannot always be applied to their own life situations, and therefore they may express much less certainty that they can control the outcomes of their own lives and score lower on the measure of personal control than Whites.

Support for these expectations is reported by Gurin et al. in their study of Negro and White students and also in their study of Negroes and Whites in a job retraining programme: there were no differences between Negroes and Whites in responding to questions on

control ideology. However, Negroes were less internal than their White peers in answering questions about their feelings of personal control.

As this study was restricted to Negroes and Whites and no further empirical evidence for the validity of the hypothesis by Gurin has been provided, the present study serves to remove the possible cultural limitations and lend further support to this hypothesis.

In the introduction of the present study the similarity of the position of Coloureds in South Africa and that of Negroes in America (a sample of which was used in the study by Gurin et al.) has already been indicated. Both groups are Western in most respects and share the same general beliefs as the Whites as regards the Protestant ethic (Patterson, 1953; Marais, 1957; van der Merwe, 1962; Gurin et al., 1969; Orpen, 1971). Both groups, however, are discriminated against (Joshi, 1942; Marquard, 1962; Thompson, 1966) and are therefore likely to perceive an inconsistency between their cultural beliefs and what works for them. (Gurin et al., 1969; Orpen, 1971).

Because of this similarity of situations in which Coloureds and Negroes find themselves, we can expect the Coloureds of the present sample to react to the I-E scale in the same way as the Negro sample in the study by Gurin et al. (1969). We expect the mean score of the Coloureds on the measure of personal control to be significantly lower than the mean score of the Whites on this measure, whereas a smaller or no difference is expected between the mean scores of the White and Coloured samples on the measure of control ideology on the I-E scale.

Hypothesis 17: "Other things being equal, Coloureds express less sense of personal control over their lives than do Whites".

HYPOTHESIS 18

As has been mentioned already in the introduction of the present study, Gurin et al. (1969) found that the sense of personal control over what happens to one's life differentiates motivation and performance. High self-confidence about abilities for job performance were expressed by students, scoring high on the personal control measure. Also, aspirations for prestigious and demanding jobs were expressed. Scores on the control ideology measure, however, were unsuccessful in predicting self-confidence, personal expectancies of aspirations. Therefore the total Internal-External control scale, combining items at both the personal and the ideological levels, could not predict these aspects either.

In a study by Gurin et al. on high school dropouts; "responses to questions at the general ideological level bore no relationship to the trainee's job success in the period following his training. Questions tapping the trainee's sense of personal control or powerlessness were very clearly related to job success". (Gurin et al., 1969, p.44).

These findings lead to the expectation that workers who score high on the measure of personal control express higher expectancies of success and self-confidence in their abilities for job performance (like the students in the study by Gurin et al., 1969), and higher expectancies to do well in their jobs than those scoring low on the personal control scales.

At the end of the introduction the reason for the formulation of hypothesis 18 has already been pointed out: thus we expect the measure of personal control on the I-E scale to be significantly more highly

correlated with satisfaction with intrinsic job-aspects than with extrinsic job-aspects.

This leads up to hypothesis 18: "Other things being equal, workers' feelings of personal control are more highly related to their feelings of satisfaction with intrinsic job-aspects than to satisfaction with extrinsic job-aspects".

METHOD

STEP ONE : Drawing up the questionnaires

Two questionnaires were drawn up. The first one contained questions about the worker's job and was given to the supervisors of the Coloured and White subjects. They were asked to give a description of the worker's job under the following headings:

1. What does X do?
2. How does he do it?
3. What material does he use?
4. To whom does he report?

As the subjects were all working for different branches of the same company and held similar positions within the company, it was certain that they were all doing essentially the same work, so that differences between the responses of the two samples on the other questionnaire could not be due to differences between the jobs held by the subjects.

As an additional check on the similarity of the jobs in which the subjects were engaged, the questionnaires described above were handed out to the supervisors before the other questionnaires, which measured workers' responses on various scales, were administered to the subjects.

The following answers were obtained:

Supervisor of the Coloured sample:

1. What does X do?  
"Sells Life Assurance".
2. How does he do it?  
"Personal contact".
3. What material does he use?  
"Knowledge of the product + Rate-books".

4. To whom does he report?

"To his manager".

Supervisor of the White sample:

1. What does X do?

"Sells Life Assurance".

2. How does he do it?

"Approaches personally-selected members of the public and tries to convey to them the benefits of Life Assurance".

3. What material does he use?

"A rate-book chiefly, and, often, specially prepared sales aids such as quotations and brochures. He also makes extensive use of the knowledge and skill he has acquired through training and experience".

4. To whom does he report?

"To his Branch Manager".

In view of the fact that the answers of the two supervisors were very similar, and that all workers held similar positions in different branches of the same company, it was accepted that, objectively at least, the Coloured and White subjects (all representatives) were doing essentially the same jobs.

The second questionnaire contained:

1. The Job Description Index.
2. The Multidimensional Internal-External Control Scale (Gurin, et al., 1969).
3. A 7-point graphic self-rating scale for overall job satisfaction.
4. A 7-point graphic self-rating scale for overall job dissatisfaction.

5. A listing of different classes (Coloureds and Whites) ranging from upper-upper to lower-lower class; the subject was asked to indicate in what class he regarded himself to be and with what class he compared himself.

ad.1. As many studies have indicated that "job satisfaction is not a unidimensional variable, but should be considered as being made up of a number of factors or areas of satisfaction," (Hulin and Smith, 1965, p.210) five separate areas of job satisfaction were measured in this study. These five areas of job satisfaction (satisfaction with actual work, with pay, with promotional opportunities, with supervision and with co-workers) are consistent with the previous factor analytic studies of job satisfaction, (Ash, 1954; Astin, 1958; Baehr, 1954; Wherry, 1954, etc.) and several studies (Hulin and Smith, 1965; Hulin, 1966a) have shown that they are clearly different from each other.

The five aspects of job satisfaction were measured by means of the Job Descriptive Index. The JDI was developed by means of using responses of 952 people in seven different organisations. Various samples have been used in constructing and validating the scales. The JDI is a cumulative-point, adjective check-list type of scale. This method of measuring job satisfaction has been subjected to an extensive validation programme and it has been shown to have adequate convergent and discriminant validity according to the Campbell-Fiske (1959) model. Corrected split-half internal consistency coefficients are reported to exceed .80 for each of the scales. Some evidence for stability over time is reported by Hulin (1966a).

Smith (1969) was one of the initiators of the Cornell studies of Job Satisfaction, by whom the JDI was developed. She reports

that in order to validate the JDI, its five scales were related to other measures of job satisfaction, and a study was made of the way in which these scales were influenced by situational characteristics and related to individual differences.

These studies were done in at least ten different validation programmes by the Cornell group. "Briefly these studies indicate that the JDI yields measures of satisfaction with five different aspects of jobs which are discriminably different from each other; the average correlation between the different scales is approximately .37 which is low enough to indicate a great deal of discrimination among the five areas. The scales correlate highly with other measures of satisfaction (average  $r = .70$ ) and are affected in the expected directions by worker, job, and situational differences. In this sense the JDI has validity as a measure of job satisfaction". (Smith, 1969, p.349). She adds that up to now the JDI has been used in a great number of studies, using over two thousand subjects, employed by more than twenty different companies in different communities and locations in the United States; in these studies the five scales always turned out to be related in a significant way to the characteristics of the subjects, the communities in which they lived and the companies in which they worked.

Quinn and Kahn (1967, p.456) comment that "the attention to psychometric canons paid by the Cornell researchers in their development of a job satisfaction measure is to date unrivalled in the history of instrument development in organizational psychology (....) The Index has survived the tests of convergent and discriminant validities, internal consistency, and response sets."

Vroom (1964, p.100) remarks that "the Job Description Index is

without doubt the most carefully constructed measure of job satisfaction in existence today (.....). The extensive methodological work underlying this measure as well as the available norms should insure its widespread use in both research and practice".

Hulin and Smith (1964; 1965), Hulin (1969) and O'Reilly and Roberts (1973) also point out the high validity of the JDI, and used the measure in their studies.

In addition to the extensive high quality research done on the JDI, there are several factors intrinsic to the scale which recommend its use. The verbal level of the items is quite low and does not require the respondent to understand complicated or vague abstractions. While the JDI is neither a projective nor a direction of perception type instrument, it does approach "job satisfaction" somewhat indirectly. The instrument asks the respondent to describe his job rather than his feelings about it. It seems quite evident from the numerous studies with the JDI that one's perception of his job is highly coloured by his satisfaction with it. The JDI is an instrument with face validity which can be easily administered and scored in a short time.

A substantial problem, which possibly takes some value away from the JDI, is that of social desirability. While there is some relation between JDI scores and social desirability, the correlation is not high; a possibility exists, however, that scores may be affected in some way by this factor. Furthermore, the possibility of "faking good" by some workers also exists regarding the JDI, and it is therefore important to assure workers that their responses will remain anonymous and will not be shown to their supervisor.

The instrument consists of 72 items - eighteen in each of work, supervision, and people subscales and nine each in pay and promotions.

Each grouping consists of a list of adjectives or descriptive phrases. The respondents were asked to put "Y" next to each item which described his pay (promotion, etc.), "N" next to each item which did not. A question ("?) response was reserved for items on which the respondent could not decide. "Y" answers were scored 3, "N" answers 0, and "?" answers as 1 point.

ad.2. In order to measure each subject's feelings of Internal versus External control, to discover possible differences between mean scores of the samples on this measure, and to investigate the relationship between I-E control and various aspects of job satisfaction, two measures, which were taken from Gurin's Multidimensional Internal-External Control Scale (Gurin et al., 1969), were administered to the subjects of the present study.

The first is the score based on third-person items from the Rotter I-E Scale (Rotter, 1966) and referred to as control ideology. The second I-E measure consists of first-person items from the Rotter scale and is labelled personal control. These two distinct factors were found to emerge by Gurin et al. (1969) in a factor analysis of the original items from Rotter's I-E scale and were found to be an enrichment of the statistical analysis in Gurin's studies. The original Rotter I-E scale, containing one general factor which includes both factors, was unable to tap all of the dimensions of the concept of Internal-External Control.

The 18 items in the personal control and control ideology on the I-E Scale, each consisting of two statements, were administered, asking the subjects to put a ring around the statement with which they agreed most. Thus scores were obtained for personal control and control ideology separately and also for the two measures combined.

ad.3 and 4. Herzberg's motivation-hygiene theory of job satisfaction (Herzberg et al, 1959) arguing that job satisfaction and job dissatisfaction are reactions to different aspects in the work situation and thus qualitatively different and therefore must be measured on a different scale. This is what was done in the present study in which separate measures of job satisfaction and dissatisfaction were employed.

It does not mean, however, that the author of the present study accepts this contention of Herzberg et al. On the contrary, the present study is partly an attempt to disprove Herzberg's statement and therefore overall job satisfaction and dissatisfaction were measured by means of distinct and separate scales. This measure represents an extra check on the validity of Herzberg's theory.

Each subject rated his overall satisfaction and overall dissatisfaction with his job on two separate 7-point graphic self-rating scales. Overall satisfaction and dissatisfaction were defined as "your general feelings of satisfaction and dissatisfaction about your job as a whole, taking into account both the favourable and unfavourable aspects of the total job". (Halpern, 1966, p.199). Each block of the 7-point self-rating scale was allotted a number from 1 to 7, from left to right, and ranging from "very little job satisfaction" to "very much job satisfaction", and from "very little job dissatisfaction" to "very much job dissatisfaction". (see questionnaire). The subjects were required to put a cross in the block that indicated their amount of overall job satisfaction and dissatisfaction. In this way separate indicators were obtained of the extent to which each subject felt satisfied and dissatisfied with his job.

ad.5. Finally, in order to examine what class each subject regarded himself and with what group he compared himself (in other words: whether he used a higher or a lower comparative reference-group or his membership group as his social reference-group) each subject was required to indicate these two data by putting a cross beside one of the six groups, ranging from upper-upper-class, through lower-upper, upper-middle and upper-lower to lower-lower class.

Festinger (1954, p.136) has stated that "comparisons with members of a different status group, either higher or lower, may sometimes be made on a phantasy level, but very rarely in reality".

It is not clear whether he thinks of "status" in economic, social, or economic and social terms. In the questionnaire of the present study both aspects came to the fore: economic aspects were represented by questions about pay satisfaction; social aspects were represented by questions about, for instance, promotion. Whether Festinger would give a definition of "status" in economic terms or in social terms, his abovementioned statement seems to stay unconfirmed by the present study, as may be seen from Tables II and IV: Out of 98 Coloured subjects, 54 compared themselves with a different status-group (class); and out of the 95 Whites, 76 compared themselves to either a higher or a lower status-group.

Hyman (1942) explains in his book on "The Psychology of Status", the difficulties which arise when one asks a person the question: "What class do you feel that you are a member of— lower-, middle- or upper-class?" He states that a person may identify "his" class in terms of social classes or in terms of economic classes and that one should specify what aspect of class is to be judged.

Runciman (1966), on the other hand, describes the individual's class-situation merely in economic terms and states that things such as one's social prestige and other social aspects have to do with status, thereby creating a sharp distinction between class and status.

Most writers have intermingled the two terms by using, for instance, the term "social class", "class-status", or "status-class", without giving explicit definitions. Some also used either the word "status" or "class" and gave a definition in economic as well as social terms.

Runciman (1966, p.152) adds that "the practice of asking the respondents in sample surveys to what 'class' they would assign themselves is often criticized on the grounds that the vagueness of the term, and its lack of precise meaning to many of the people who use it, make the resulting distribution of answers dangerously misleading", and he suggests that the people should first be asked what meaning they ascribe to the term.

In the present study, however, the subjects were asked about their "class" only after they had answered the questions on their jobs and on its social and economic aspects, such as co-workers, promotion and pay. Therefore they were likely to think about "class" in those terms, so that the possible disturbing influence, coming from different ways of thinking about the meaning of "class" was likely to be eliminated.

STEP TWO : Administering questionnaire No. 2

Subjects. The subjects consisted of 98 English-speaking Coloured representatives and 95 English-speaking White representatives, working for different branches of a life assurance company in South Africa. All representatives were male and had worked for the company for at least two years. The average age of the Coloured group was 27.9 years (SD = 4.6), that of the White group 28.5 years (SD = 4.9). They were paid on a stright commission basis, so that each representative's pay depended on how hard he worked. As the Coloured and White groups worked in separate branches of the company, no discrimination could occur in matters of promotion.

Procedure. The questionnaires were handed out by the author of the present study to the representatives after their weekly meeting and after their supervisor or any other superior had left in order to eliminate possible influences of his personality on the way the subjects responded to the questionnaires (such as "faking good"). Thus, the test situation was roughly the same for all subjects. The subjects were simply asked to complete the questionnaires and were assured of the anonymity of their responses. They were told not to write their names on the questionnaires. No further comment was given. The subjects simply followed the brief instructions written on the first page of the questionnaire and at the head of each part of the questionnaire. In order to provide the subjects with an additional guarantee of anonymity and to assure them that the results were to be used for research on job satisfaction only, and not by the company, each subject was given an envelope with the heading "University of Cape Town" printed on it. There was thus presumably little motivation for the subjects to answer in such a way as to please their supervisor, for

the simple reason that he would not see the results and that their responses to the questionnaires were anonymous.

After completion the subjects put the questionnaires into the envelopes and handed them in to the author of the present study.

#### Treatment of the Statistical Data.

Ad Table I. Means and standard deviations were computed for the Coloured and the White sample for all scores obtained on the JDI, on the I-E scale, on the separate measures of personal control and control ideology, and on the measures of overall job satisfaction and dissatisfaction. The t test of significance was then carried out between the means obtained, in order to examine which differences between the mean scores, obtained by the Coloured and by the White sample were significant, and at what level (.05 or .01 per cent) they were significant. Results, significant at the .05 and .01 levels were marked accordingly.

Ad. Table II. Means and standard deviations were computed for the scores obtained by the classes within the Coloured sample on the measures of satisfaction with the 5 job-aspects (JDI) and on the measures of overall job satisfaction and dissatisfaction. The Coloured sample was divided into groups that regarded themselves to be lower-, middle-, or upper-class. These classes were subdivided into two groups each, consisting of Coloureds who used a class lower than, equal, to or higher than their "own" as their reference-group. For example, the group consisting of Coloureds who regarded themselves to be lower-class (N = 23), was subdivided into two groups 1 and 2. Group 1 (N = 4) consisted of lower-class Coloureds who compared themselves with lower-class Coloureds (= their membership group). Group 2 (N = 19) consisted of Coloureds who compared themselves with

middle- or upper-class Coloureds (= a higher comparative reference-group). The group of middle-class Coloureds was, in order to avoid making the subgroups too small, subdivided into group 3, consisting of Coloureds who compared themselves with a lower comparative reference-group and with their membership reference group (N = 8) and group 4, consisting of Coloureds who compared themselves with a higher comparative reference group. The group of upper-class Coloureds was subdivided into group 5, consisting of people who used as their reference-group a lower- or middle-class (= a lower comparative reference-group) and group 6, consisting of people who compared themselves with upper-class Coloureds (= their membership group). In this way 6 different groups were obtained.

Ad Table III. Next the t test of significance was applied to the mean scores obtained by these six Coloured groups on the measures of the JDI and the measures of overall job satisfaction, in order to establish what differences between the means were significant, and at what level they were significant. Thus, three columns of t ratios were obtained: one for the two lower-class groups, one for the two middle-class groups, and one for the two upper-class groups. Results, significant at the .05 and .01 levels, were marked accordingly.

Ad Table IV. In the same way as for the Coloured sample in Table II, means and standard deviations were computed for the Whites. The White sample was also divided into three groups of lower-, middle- and upper-class Whites (i.e. Whites who regarded themselves to be in those classes), and these three groups were subdivided into six groups according to the reference-groups used by the subjects. These groups were numbered from 7 to 12.

Ad Table V. Then the t test of significance was carried out

between the mean scores obtained by the six White groups, in order to examine the means on their significance, and in order to find out at what level they were significant.

Ad Table VI. This Table shows the means and standard deviations, computed for the scores on the I-E control scale, obtained by Coloureds who regarded themselves to belong to a lower-, middle- or upper-class. Next, the t test was applied to these means, in order to examine them on their significance, and to find out which group was most and which was least internally-orientated.

Ad Table VII. The same treatment was given to the White sample: means and standard deviations were computed for the I-E control scores, obtained by lower-, middle- and upper-class Whites, and the t test was carried out between the means. Results, significant at the .05 and .01 levels were marked accordingly.

Ad Table VIII. The scores of the Coloured sample on the measures of satisfaction with the five job-aspects (JDI), on the measures of Internal-External Control, personal control and control ideology, and on the measures of overall job satisfaction and job dissatisfaction were intercorrelated, using the Pearson Product-Moment correlation. The results were presented in the form of a 10 x 10 matrix. Correlations, significant at the .05 and .01 per cent levels were marked accordingly.

Ad Table IX. The scores of the White sample on the different measures in the questionnaire were intercorrelated in the same way as for the Coloured sample.

In order to examine the relations of job satisfaction with feelings of internal-external control, personal control, and control ideology, the significance of the differences between the correlations between

I-E, P.C. and C.I. measures and the JDI was determined for both samples with the use of the following formula (see Klugh, 1970, p.205):

$$t = \frac{(r_{BG} - r_{AG}) \sqrt{(N-3)(1+r_{AB})}}{\sqrt{2(1-r_{AG}^2 - r_{BG}^2 - r_{AB}^2 + 2r_{AG} \cdot r_{BG} \cdot r_{AB})}}$$

where  $r_{AB}$  is the correlation between the results obtained on the JDI and on the I-E scale.

This  $t$  is evaluated with  $N-3$  degrees of freedom, where  $N$  is the number of subjects.

Ad Table X. The means of the scores on the measure of personal control obtained by lower-, middle- and upper-class Coloureds and Whites were computed, while a distinction was made between those, comparing themselves with their membership reference-group, and those, comparing themselves with a lower or higher comparative reference-group.

---

THE QUESTIONNAIRES

Please, give a description of the worker's job under the following headings (a few lines under each heading is enough):

1. WHAT DOES X DO?

2. HOW DOES HE DO IT?

3. WHAT MATERIAL DOES HE USE?

4. TO WHOM DOES HE REPORT?

THANK YOU.

The following inventory is being investigated for research purposes, on behalf of the University of Cape Town. The purpose of the questions is to find out how satisfied or dissatisfied you are with your job and how much you like or dislike the different aspects of your work.

When you answer the questionnaires, make sure that you write down exactly how you yourself feel.

Your answers will be strictly confidential and only used for this survey.

THANK YOU.

Please put:

"Y" beside an item if the item describes the WORK you do,

"N" if the item does not describe your work,

"?" if you cannot decide.

For example: fascinating        Y

                  routine            N

                  etc

- Don't leave any of the items out.
- Don't give more than one answer to each item.
- Don't look back at the items which you have already answered.
- Answer honestly.

WORK

fascinating

routine

satisfying

boring

good

creative

respected

hot

pleasant

useful

tiresome

healthful

challenging

on your feet

frustrating

simple

endless

gives sense of accomplishment



Please put:

"Y" beside an item if the item describes the SUPERVISION you get,

"N" if the item does not describe your supervision,

"?" if you cannot decide.

- Don't leave any of the items out.
- Don't give more than one answer to each item.
- Don't look back at the items which you have already answered.
- Answer honestly.

SUPERVISION

asks my advice

hard to please

impolite

praises good work

tactful

influential

up-to-date

doesn't supervise enough

quick-tempered

tells me where I stand

annoying

stubborn

knows job well

bad

intelligent

leaves me on my own

around when needed

lazy



Please put:

"Y" beside an item if the item describes the PEOPLE you work with,

"N" if the item does not describe the people you work with,

"?" if you cannot decide.

- Don't leave any of the items out.
- Don't give more than one answer to each item.
- Don't look back at the items which you have already answered.
- Answer honestly.

PEOPLE

stimulating

boring

slow

ambitious

stupid

responsible

fast

intelligent

easy to make enemies

talks too much

smart

lazy

unpleasant

no privacy

active

narrow interests

loyal

hard to meet



Please put:

"Y" beside an item if the item describes the PAY you get,

"N" if the item does not describe your pay,

"?" if you cannot decide.

- Don't leave any of the items out.
- Don't give more than one answer to each item.
- Don't look back at the items which you have already answered.
- Answer honestly.

PAY

income adequate for normal expenses

satisfactory profit sharing

barely live on income

bad

income provides luxuries

insecure

less than I deserve

highly paid

underpaid



Please put:

"Y" beside an item if the item describes your PROMOTIONS,

"N" if the item does not describe your promotions,

"?" if you cannot decide.

- Don't leave any of the items out.
- Don't give more than one answer to each item.
- Don't look back at the items which you have already answered.
- Answer honestly.

### PROMOTIONS

good opportunity for advancement

opportunity somewhat limited

promotion on ability

dead-end job

good chance for promotion

unfair promotion policy

infrequent promotions

regular promotions

fairly good chance for promotion

Please indicate, to the best of your ability, with which part (a or b) of the following statements you agree, by putting a ring around "a" or "b".

e.g.: if you agree with part "a" of the first statement 1  a  
b

- 1a. Without the right breaks one cannot be an effective leader.  
b. Capable people who fail to become leaders have not taken advantage of their opportunities.
- 2a. No matter how hard you try, some people just don't like you.  
b. People who can't get others to like them, don't understand how to get along with others.
- 3a. In the case of the well prepared student, there is rarely if ever such a thing as an unfair test.  
b. Many times exam questions tend to be so unrelated to course work that studying is really useless.
- 4a. Becoming a success is a matter of hard work, luck has little or nothing to do with it.  
b. Getting a good job depends mainly on being in the right place at the right time.
- 5a. Who gets to be the boss often depends on who was lucky enough to be in the right place first.  
b. Who gets to be boss depends on who has the skill and ability, luck has little or nothing to do with it.
- 6a. It is hard to know whether or not a person really likes you.  
b. How many friends you have depends on how nice a person you are.
- 7a. Without the right breaks; one cannot be an effective leader.  
b. Getting people to do the right thing depends upon ability; luck has little or nothing to do with it.
- 8a. Sometimes I can't understand how teachers arrive at the grades they give.  
b. There is a direct connection between how hard I study and the grades I get.
- 9a. Knowing the right people is important in deciding whether a person will get ahead.  
b. People will get ahead in life if they have the goods and do a good job; knowing the right people has nothing to do with it.
- 10a. Leadership positions tend to go to capable people who deserve being chosen.  
b. It's hard to know why some people get leadership positions and others don't; ability doesn't seem to be the important factor.
- 11a. People who don't do well in life often work hard, but the breaks just don't come their way.  
b. Some people just don't use the breaks that come their way. If they don't do well, it's their own fault.

- X ✓
- 12a. Most people don't realise the extent to which their lives are controlled by accidental happenings.  
b. There really is no such thing as "luck".
- 13a. People are lonely because they don't try to be friendly.  
b. There's not much use in trying too hard to please people, if they like you, they like you.
- 14a. I have often found that what is going to happen will happen.  
b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.
- 15a. What happens to me is my own doing.  
b. Sometimes I feel that I don't have enough control over the direction my life is taking.
- 16a. When I make plans, I am almost certain that I can make them work.  
b. 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.
- 17a. In my case, getting what I want has little or nothing to do with luck.  
b. Many times we might just as well decide what to do by flipping a coin.
- 18a. Many times I feel that I have little influence over the things that happen to me.  
b. It is impossible for me to believe that chance or luck play an important role in my life.



The purpose of the following question is to measure your general feelings of satisfaction about your job as a whole, taking into account both the favourable and unfavourable aspects of the total job.

Please put a cross in the block that indicates your amount of overall job satisfaction.

Low numbers represent low or minimum amounts of job satisfaction.

High numbers represent high or maximum amounts of job satisfaction.

Very little job  
satisfaction

Very much job  
satisfaction

1	2	3	4	5	6	7
---	---	---	---	---	---	---

The purpose of the following question is to measure your general feelings of dissatisfaction about your job as a whole, taking into account both the favourable and unfavourable aspects of the total job.

Please put a cross in the block that indicates your amount of overall job dissatisfaction.

Low numbers represent low or minimum amounts of job dissatisfaction.  
High numbers represent high or maximum amounts of job dissatisfaction.

Very little job  
dissatisfaction

Very much job  
dissatisfaction

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Please indicate in which group you regard yourself to be.

Put a cross beside that group.

upper-upper coloureds		upper-upper whites
lower-upper "		lower-upper "
upper-middle "		upper-middle "
lower-middle "		lower-middle "
upper-lower "		upper-lower "
lower-lower "		lower-lower "

Please indicate with which group you compare yourself.

Put a cross beside that group.

upper-upper coloureds		upper-upper whites
lower-upper "		lower-upper "
upper-middle "		upper-middle "
lower-middle "		lower-middle "
upper-lower "		upper-lower "
lower-lower "		lower-lower "

THANK YOU.

RESULTS

TABLE I

Means, standard deviations and t ratios, computed for all scores obtained by the Coloured and White samples.

Test	SAMPLE OF COLOUREDS (N=98) vs SAMPLE OF WHITES (N= 95)				t	df
	Mean	SD	Mean	SD		
Work	48,16	5,27	42,90	7,99	5,38**	191
Supervision	51,62	2,64	39,75	7,93	13,86**	191
People	49,05	5,35	43,17	7,35	6,34**	191
Pay	24,37	3,47	18,75	6,25	7,69**	191
Promotion	24,30	3,46	24,03	3,41	,55	191
Int-Ext	12,40	3,05	14,68	2,97	-5,26**	191
Pers.C.	2,71	1,25	4,21	,89	-9,63**	191
C.Ideology	9,69	2,70	10,48	2,39	-2,15*	191
JS	6,42	,90	5,55	1,22	5,62**	191
JD	1,61	,89	2,50	1,19	-5,87**	191

\*: significance at the .05 level

\*\* : significance at the .01 level

TABLE II

Computation of means and standard deviations of scores obtained by the six Coloured Groups.

Regarding themselves in		SAMPLE OF COLOUREDS (N = 98)					
		LOWER CLASS		MIDDLE CLASS		UPPER CLASS	
Group No.		1	2	3	4	5	6
Comparing with what class		Same (L)	Higher (M/U)	Lower/same (L/M)	Higher (U)	Lower (L/M)	Same (U)
N:		4	19	8	20	9	38
Work	M	53,00	44,32	51,75	42,70	52,44	50,68
	SD	2,00	4,28	2,49	3,39	1,81	3,98
Supervision	M	47,00	52,42	50,12	52,40	49,11	52,21
	SD	1,41	2,50	2,42	2,30	2,32	2,18
People	M	51,75	45,37	51,50	45,40	51,89	51,58
	SD	4,50	7,31	2,27	5,44	2,09	2,30
Pay	M	24,75	24,42	26,38	22,20	25,33	24,45
	SD	3,86	3,52	1,41	4,85	1,87	3,18
Promotion	M	25,50	24,05	26,00	21,70	25,44	25,03
	SD	3,00	4,85	1,20	3,73	1,81	2,30
JS	M	6,75	6,26	6,75	5,85	6,78	6,61
	SD	,50	1,15	,46	1,18	,44	,60
JD	M	1,25	1,68	1,38	2,25	1,44	1,37
	SD	,50	1,11	,52	1,12	,53	,63

TABLE III

Application of the t test of significance to the mean scores obtained by the Coloured group.

Regarding themselves in	SAMPLE OF COLOUREDS (N = 98)		
	Lower Class	Middle Class	Upper Class
Group No.	1 + 2	3 + 4	5 + 6
N:	23	28	47
df:	21	26	45
Work t =	6,20**	7,79**	1,99
Super- vision t =	-5,95**	-2,28*	-3,65**
People t =	2,27*	4,19**	,39
Pay t =	,16	3,50**	1,10
Pro- motion t =	,78	4,60**	,59
JS t =	1,34	2,90**	,98
JD t =	-1,22	-2,82**	,37

\* significance at the .05% level  
 \*\* significance at the .01% level

TABLE IV

Computation of means and standard deviations of scores obtained by the six White groups:

Regarding themselves in		SAMPLE OF WHITES (N = 95)					
		LOWER CLASS		MIDDLE CLASS		UPPER CLASS	
Group No.		7	8	9	10	11	12
Comparing with what class		Same (L)	Higher (M/U)	Lower/same (L/M)	Higher (U)	Lower (L/M)	Same (U)
N:		9	12	35	19	14	6
Work	M	48,00	35,33	45,74	34,58	48,21	47,67
	SD	2,83	8,85	5,85	6,59	2,23	1,63
Supervision	M	40,11	45,42	36,71	44,53	36,36	38,50
	SD	11,23	5,11	6,94	7,35	7,13	2,26
People	M	47,78	37,67	45,80	35,95	47,36	45,00
	SD	3,53	7,77	4,65	8,56	3,90	,63
Pay	M	21,78	14,67	20,31	14,05	22,14	20,17
	SD	3,31	7,76	4,20	19,00	5,01	2,32
Promotion	M	25,89	22,00	25,51	21,21	24,71	24,00
	SD	1,17	5,78	1,36	3,82	2,09	1,67
JS	M	6,22	4,67	5,97	4,58	5,93	6,00
	SD	,67	1,72	,66	1,54	,62	0,00
JD	M	1,89	3,33	2,09	3,53	2,07	1,83
	SD	,78	1,72	,70	1,31	,62	,41

TABLE V

Application of the t test of significance to the mean scores obtained by the White groups.

Regarding themselves in	SAMPLE OF WHITES (N = 95)		
	LOWER CLASS	MIDDLE CLASS	UPPER CLASS
Group No.	7 + 8	9 + 10	11 + 12
N:	21	54	20
df:	19	52	18
Work t =	4,65**	6,18**	,61
Super- vision t =	-1,32	-3,80**	-1,01
People t =	3,99**	4,66**	2,20*
Pay t =	2,85*	1,42	1,21
Promotion t =	2,27*	4,45*	,81
JS t =	2,85*	3,66**	- ,43
JD t =	-2,57*	-4,47**	1,02

\*: significance at the ,05% level

\*\* : significance at the ,01% level

TABLE VII

1. Means and standard deviations of scores obtained by lower-, middle-, and upper-class Whites on the I-E scale.
2. t ratios obtained by carrying out the t test of significance on the means.

<u>SAMPLE OF WHITES (N = 95)</u>			
regarding themselves in:			
Lower Class (N = 21)	M = 12,57 SD = 2,66	] t = -3,00** df = 73	] t = -6,85** df = 39
Middle Class (N = 54)	M = 14,70 SD = 3,01		
Upper Class (N = 20)	M = 16,85 SD = 1,04	] t = -4,55** df = 72	

\* significance at the ,05% level.

\*\* significance at the ,01% level

TABLE VIII

Intercorrelation matrix (Pearson coefficient) for 98 Coloureds.

	1.Wo	2.Su	3.Pe	4.Pa	5.Pr	6.I-E	7.PC	8.CI	9.JS	10.JD
1.Wo	x									
2.Su	.120	x								
3.Pe	.647**	.010	x							
4.Pa	.550**	.346	.381*	x						
5.Pr	.602**	.309	.537**	.528**	x					
6.I-E	.540**	.224	.412**	.341	.359	x				
7.PC	.935**	.008	.598**	.462**	.577**	.474**	x			
8.CI	.172	.237	.191	.191	.135	.907**	.007	x		
9.JS	.747**	.399*	.581**	.651**	.666**	.524**	.687**	.280	x	
10.JD	-.679**	-.391**	-.542**	-.707**	-.654**	-.523**	-.617**	-.315	-.827**	x

Application of the t formula for differences between coefficients of correlation on:

1. Correlations of intrinsic job-aspects (Wo, Pr), with personal control (PC), internal-external control (I-E) and with control ideology (CI).
2. Correlations of extrinsic job-aspects (Su, Pe, Pa) with PC, I-E and with CI.

Wo, Pr and PC	: r = .78	}	t = 5,34**
Su, Pe, Pa and PC	: r = .44		
Wo, Pr and I-E	: r = .46	}	t = .13
Su, Pe, Pa and I-E	: r = .34		
Wo, Pr and CI	: r = .16	}	t = .45
Su, Pe, Pa and CI	: r = .21		

\*: significance at the .05% level.  
 \*\*: significance at the .01% level.

TABLE IX

Intercorrelation matrix (Pearson coefficient) for 95 Whites:

	1.Wo	2.Su	3.Pe	4.Pa	5.Pr	6.I-E	7.PC	8.CI	9.JS	10.JD
1.Wo	x									
2.Su	-.101	x								
3.Pe	.765**	-.141	x							
4.Pa	.772**	.108	.669**	x						
5.Pr	.729**	.005	.694**	.653**	x					
6.I-E	.549**	.002	.431**	.549**	.366	x				
7.PC	.801**	.000	.568**	.709**	.551**	.753**	x			
8.CI	.397*	.002	.325	.428*	.258	.968**	.575**	x		
9.JS	.845**	.106	.805**	.833**	.726**	.598**	.710**	.482**	x	
10.JD	-.850**	.005	-.771**	-.836**	-.713**	-.598**	-.724**	-.477**	-.935**	x

Application of the t formula for differences between coefficients of correlation:

$$\begin{array}{l} \text{Wo, Pr, and PC} : r = .69 \\ \text{Su, Pe, Pa and PC} : r = .53 \end{array} \left. \vphantom{\begin{array}{l} \text{Wo, Pr, and PC} \\ \text{Su, Pe, Pa and PC} \end{array}} \right\} t = 1.92$$

$$\begin{array}{l} \text{Wo, Pr and I-E} : r = .47 \\ \text{Su, Pe, Pa and I-E} : r = .40 \end{array} \left. \vphantom{\begin{array}{l} \text{Wo, Pr and I-E} \\ \text{Su, Pe, Pa and I-E} \end{array}} \right\} t = .79$$

$$\begin{array}{l} \text{Wo, Pr and CI} : r = .34 \\ \text{Su, pe, pa and CI} : r = .31 \end{array} \left. \vphantom{\begin{array}{l} \text{Wo, Pr and CI} \\ \text{Su, pe, pa and CI} \end{array}} \right\} t = .34$$

\* : significance at the .05% level.

\*\* : significance at the .01% level.

TABLE X

Computation of means of scores on the measure of personal control obtained by lower-, middle- and upper-class Coloureds and Whites, divided into those, comparing themselves with their membership reference-group, and those, comparing themselves to a lower or higher comparative reference-group.

Coloureds	N	MPc	Comparison
Lower class	4 19	4,25 1,84	same higher
Middle class	2 26	4,00 2,12	same higher/lower
Upper class	38 9	3,42 3,33	same lower

Whites	N	MPc	Comparison
Lower class	9 12	4,78 3,50	same higher
Middle class	23 31	4,21 4,03	same higher/lower
Upper class	6 14	4,67 4,78	same lower

DISCUSSION OF RESULTS,  
CONCLUSIONS,  
AND SUGGESTIONS FOR FURTHER STUDY.

GENERAL HYPOTHESIS A:

An important prerequisite for a proper testing of this hypothesis was that the Coloured and White workers should compare themselves with their own racial groups. This, indeed, turned out to be the case. Of an original sample of 105 Coloureds, only one subject compared himself with Whites, but as the questionnaire was not properly completed by this subject (only one item in each column of the JDI was answered and several other questions were not answered), his questionnaire could not be used for the present study. Several others had to be discarded as well, due to their incompleteness. 98 questionnaires, completed by Coloureds, were left. All these Coloureds compared themselves with their own race. All White subjects compared themselves with their own racial group: 95 questionnaires, completed by White subjects, remained, after elimination of the incomplete ones.

As pointed out earlier, the Coloured community is generally poorer than the White community and the range of alternative opportunities such as better paid jobs in other companies, open to the Coloured representatives, is much less than that open to the White representatives. The findings indicate that the premises underlying the reference-group argument are valid in the present context. In other words, because the Coloured representatives compare themselves with the relatively "deprived" Coloured community and the White with the relatively "enriched" White community, we would expect, in terms of reference-group theory, that the Coloured representatives would be more satisfied with their jobs than the Whites.

The results confirm this first general hypothesis (A). Table I presents data comparing the average scores of the Coloured and White

representatives with respect to the 5 aspects of job satisfaction and overall job satisfaction and dissatisfaction. All t ratios are statistically significant well beyond the .01 level, except for the t ratio for promotion. This may be explained by the fact that the Coloured and White representatives worked for different branches in the same company, each branch having similar types of occupational positions, ranging from high to low, so that the Coloureds could not experience any form of discrimination concerning opportunities for promotion. The only place where discrimination occurred was in the very top ranks of the company, with the effect that only Whites could enter these ranks. This, however, only affected the promotion of the higher-placed employees in the company, and not the representatives, who had equal opportunities for promotion. This does not alter the fact that the Coloured representatives still have less opportunities open to them in their community as a whole than have the White: it would be much easier for the White representatives to switch to a better paid and different job than it would be for the Coloureds as in their case discrimination would occur again (job reservation!). Had the sample been taken from a different company, which did not offer equal opportunities for promotion to its employees, then different scores might have been obtained on this aspect of job satisfaction. Taken together, the data presented in Table I confirm hypothesis A : The Coloured representatives have a significantly higher overall job satisfaction, a significantly lower overall job dissatisfaction and a significantly higher satisfaction with most job-aspects than have the White representatives.

Hypotheses 1, 2 and 2A: (re. work and pay satisfaction)

The Coloured sample obtained a mean score on work satisfaction of 48.16, as against a mean score of 42.90 obtained by the White sample, a difference which is significant at the .01 level. This finding is consistent with those of Hulin and Smith (1965) and Hulin (1966a). In the present study it was also found that community characteristics exert a strong influence on pay satisfaction; the t test, applied to the means obtained by the Coloured and White sample, resulted in a t ratio of 7.69, indicating that the Coloureds were far more satisfied with their pay than the Whites. Thus, hypotheses 1 and 2 were confirmed.

Another hypothesis by Hulin (1966a) was that satisfaction with pay would be more negatively related to the prosperity of the community than would the other aspects of job satisfaction. The results of his study, however, confirmed his prediction only partially: in only four out of eight cases did pay satisfaction have the highest correlation with the variables used to index community characteristics. A similar result is obtained by the present study: the difference between the mean score on pay satisfaction of Coloureds and that of Whites, compared with the differences between the scores on the other aspects of job satisfaction, is only the second highest. Thus Hulin's suggestion that the relationship between pay satisfaction and community characteristics should be stronger than that between the other aspects of satisfaction and the community variable seems to be faulty.

The result of the present study regarding pay satisfaction may be explained by taking into account the discriminative situation in which the Coloureds find themselves, and which may influence the other job aspects as much as the salary aspect. The result may have been that Coloured workers in the present study were as much or even more concerned with the salary aspect as with supervision and promotion aspects, as they were already on a reasonable pay-level. This may have been the reason that the Coloured workers were not more satisfied with their pay (in comparison with the Whites) than with the other job-aspects.

Hypothesis 3a and 4. (re supervision and co-worker satisfaction)

Both hypotheses are confirmed by the results. The difference between the mean scores on supervision satisfaction is especially very large: the Coloured sample's mean score is 51.62 and that of the White sample 39.75. The  $t$  ratio obtained from these means is 13.86 which indicates that the difference is highly significant (beyond the .01 level). For satisfaction with co-workers, the difference between means is significant beyond the .01 level as well. These results are in contradiction with the results obtained by Hulin and Smith (1965) and Hulin (1966a), who concluded that these two areas of satisfaction behaved in a way different from the satisfaction variables related to other aspects of the job: these two areas of satisfaction did not seem to be as much influenced by community variables as the others. In the discussion under hypothesis 3 of the present study it has already been mentioned that the discriminant validity of the measure of job satisfaction used by Hulin (1966a) was rather doubtful and that he failed to take a measure of overall job satisfaction and dissatisfaction, as was done in the present study. As the  $t$  ratios, obtained on overall job satisfaction and dissatisfaction, were highly significant, it is suggested that this high overall satisfaction of the workers may also have had a positive influence on their satisfaction with supervision and co-workers. In this way these two areas of satisfaction may be influenced indirectly by the community variables, which establish the workers' frames of reference.

An interpretation in terms of self-esteem offers a useful alternative explanation for the great difference between the levels of supervision satisfaction of the Coloured and the White sample. It was

hypothesised by Haggstrom (1963) that Negroes in the United States have a lower self-esteem than Whites. The central purpose of his study was to test the hypothesis that the "Negro community is a symbol of Negro inferiority, and as such depresses the self-esteem of its members". Self-esteem was defined as "a relatively veridical self-perception of the extent of self-realisation which tends to be maintained by a person in situations in which he actually finds himself". (Haggstrom, 1963, p.3008). This definition implies that a person's self-esteem varies, depending on the situation. Haggstrom states that "evidence is provided from the literature that the primary meaning of being a Negro stems from the majority idea that, although all Americans ought to have equal rights and opportunities, Negroes are inferior. The research literature is also described as providing evidence that the primary personality characteristic which distinguishes Negroes from White persons in the United States is lower self-esteem". (Haggstrom, 1963, p.3008).

Empirical evidence for the hypothesis that Negroes have lower self-esteem than Whites was provided by the results of a study on racial differences in job attitudes by Slocum and Strawser (1972). Using a sample of Black and non-Black Certified Public Accountants (CPA's) in the United States, they found that the Black CPA's reported higher need deficiencies in feelings of self-esteem ( $p < .05$ ), than did the other CPA's.

The resemblance of the position, attitudes and beliefs of the Negroes in the United States with those of the Coloureds in South Africa, has already been pointed out in the introduction. Hence we can expect the Coloureds, like the Negroes, to have a lower self-esteem than the Whites.

Thompson (1971) has shown that an individual's level of self-esteem is inversely related to his satisfaction with the supervisory style of his boss.

In line with these results we can expect the Coloured sample, having less self-esteem than the White sample, to score lower on supervision satisfaction than the Whites. The validity of this expectation is indeed borne out by the results of the present study. Whether this alternative explanation is valid, however, could only be shown by testing the level of self-esteem of the Coloured and the White sample. In this way it could be proved that the suggestion that Coloureds have less feelings of self-esteem than Whites, holds true for the samples of the present study.

As a check on the level of self-esteem has not been included in this study, an explanation for the difference in supervision satisfaction in terms of the reference-group theory serves, at the moment, as a more useful explanation.

Cross-cultural studies on self-esteem are suggested as a possibility for further research as, up to now, very few investigations regarding this topic have taken place.

A significant difference was found between the means of scores on co-worker satisfaction, indicating a relationship between co-worker satisfaction and the reference-groups of the Coloured and White representatives in the present study. This finding is in line with previous results obtained by a recent study by Hulin (1969), who also found that community characteristics and co-worker satisfaction were related. This was in contradiction with previous results obtained by himself, indicating that satisfaction with co-

workers generally did not behave in the lawful manner that the other job satisfaction variables did.

On account of these recent results we would say that the behaviour of this last variable is not that unlawful as Hulin (1966a) first thought. It seems that co-worker satisfaction is just as strongly related to community variables as most of the other aspects.

His previous inconsistent results may have been caused by insufficient job satisfaction measures (see "Introduction"). Hulin himself remarks that co-worker satisfaction is something that has to do with interpersonal relationships, and that "the reason for this apparent lack of correspondence between interpersonal satisfactions and satisfactions with other aspects of the job may simply be because there is very likely more agreement on what constitutes a good promotion policy or what constitutes an acceptable rate of pay than there is on what constitutes a good (...) work group". (Hulin, 1966a, p.191).

Hypothesis 5:

(re: promotion satisfaction)

This hypothesis was not confirmed. As can be seen from Table I, the difference between the mean scores on promotion satisfaction obtained by the Coloured (24.30) and the White sample (24.03) was very insignificant ( $t = .55$ ). The cause of this may be, as has already been explained in the "Method", the fact that the Coloureds and Whites were employed in separate branches of the company, so that no discrimination occurred in promotion policies regarding the representatives. This may result in equal levels of promotion satisfaction.

In many previous studies (Hulin and Smith, 1965; Hulin, 1966a) however, it has appeared that it is very difficult to make predictions concerning promotion satisfaction, as results have varied greatly. The abovementioned hypothesis may hold true, however, for other samples consisting of workers who do experience discrimination in matters of promotion. Because of the situation in the present study, namely that the Coloureds were not affected by discrimination regarding promotion policies, the reference-group theory does not seem to hold true in this case.

Hypotheses 6 and 7:

(re overall job satisfaction and dissatisfaction)

The data in Table I show that hypotheses 6 and 7 are confirmed at the .01 level of significance. The t test applied to the mean scores on overall job satisfaction of the Coloured (6.42) and White samples (5.55), resulted in a t ratio of 5.62. The t test of the significance of the difference between the mean scores on overall job satisfaction of Coloureds (1.61) and Whites (2.50) resulted in a t ratio of  $-5.87$ . Thus the Coloured representatives appeared to be appreciably more satisfied and less dissatisfied with their jobs than did the Whites. This result is in accordance with the major prediction derived from the reference-group theory of job satisfaction and with the results obtained by previous studies.

No evidence in these results can support Herzberg's (1959) suggestion that job satisfaction is not merely the opposite of job dissatisfaction, but rather that they are qualitatively different.

As can be seen from Table I, Coloureds are significantly more satisfied with their overall jobs than Whites ( $t = 5.62$ ) but also significantly less dissatisfied ( $t = -5.87$ ). Both t ratios were significant at the .01 level.

Moreover, if it is true, as the motivation-hygiene theory implies, that job satisfaction and job dissatisfaction are not opposite ends of the same continuum but instead represent two distinct continua, then the correlation between the separate scales should at least not be significantly negative. However, all correlations between the scale of job satisfaction and that of job dissatisfaction

of Coloureds and Whites are significantly negative, as can be seen from Tables VIII and IX. Therefore, no evidence for the validity of Herzberg's suggestion was borne out by the present study.

O'Reilly (1973) showed how the culturally imposed frame of reference influences the way an individual perceives his job and whether its aspects are satisfying or not. Any influence coming from this factor, however, is ruled out in the present study as Coloureds and Whites in South Africa have the same cultural background: both groups are Western as regards values and living habits (Marais, 1957; van der Merwe, 1962; Orpen, 1974b). Moreover, the present study examines differences in job satisfaction as reported by Coloureds and Whites employed in the same work and job situation. Thus, many possible influences on job satisfaction are controlled here because of the similarity of the Coloured and White samples. The findings are based on one of the most widely used and best researched job satisfaction instruments, the J.D.I., which has been shown, in many different studies, to have adequate convergent and discriminant validity, (see "Method"). Thus, the probability of erroneous findings resulting from bias in the instrument used is reduced.

The only important differences, existing between the two samples, are differences in community characteristics and the difference between ranges of attractive alternatives open to Coloureds and Whites. As the Coloureds and the Whites of the present study compared themselves with their own racial groups, the influences that come from communities differing in prosperity, and from different amounts of alternatives available, resulted in the two races having different frames of reference. These, in turn, were the determinants

of the amount of satisfaction derived by the workers from their jobs. As the amount of satisfaction with most of the job aspects and with the overall job differed significantly, this part of the present study indeed lends support to the reference-group theory of job satisfaction.

From a practical point of view it may be stated that measuring workers' job satisfaction and relating the results thereof to their reference-groups may be of long-term importance to employers. Taking into account how relevant employees' communities and social situations are in determining job satisfaction, they will be able to understand the reasons for job satisfaction and dissatisfaction better, so that they may heighten satisfaction and remove the causes of dissatisfaction.

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### General Hypothesis B.

In order to conclude whether this hypothesis is confirmed, or to what extent it is supported by the results, the scores on each of the five aspects of job satisfaction were examined separately.

Moreover, differences between the two samples might very well occur as regards scores on job satisfaction obtained by the various classes of workers because of difference between the reference-groups of Coloureds and Whites. Therefore the t test of significance of the differences between mean job satisfaction scores was applied to the two samples separately. This resulted in the necessity of splitting hypothesis B into separate hypotheses, B.1 and B.2 for Coloureds and Whites, respectively.

Subsequently, hypotheses B.1 and B.2 were each split up into five different hypotheses, in order to be able to examine the differences between scores on each area of job satisfaction. Two additional predictions were made concerning overall job satisfaction and dissatisfaction.

Tables 2, 3, 4 and 5 summarise the data to be examined in order to confirm or reject hypotheses B.1 and B.2 and hypotheses 8 to 14.

Table 2 presents data comparing the mean scores and their standard deviations on job satisfaction of the Coloured sample, divided in lower-, middle- and upper-class. Each of these classes was sub-divided into two groups according to which class they used as their reference-group.

Table 4 presents similar data for the White sample.

Table 3 presents the t ratios, obtained after application of

the t test of the significance of the difference between the means of the scores on job satisfaction obtained by the three pairs of subdivisions of the Coloured classes.

Table 5 presents similar scores for the White classes.

Looking at all these results, we find that hypotheses B.1 and B.2 and hypotheses 8 to 14 are partially confirmed:

In the Coloured sample 11 out of the 21 t ratios obtained are significant, 9 of which are significant at the .01 percent level and 2 at the .05 level. In the White sample 13 out of the 21 t ratios are significant, 8 of which are significant at the .01 level and 5 at the .05 level.

When we look at Table 3 we see that hypothesis 8A (work satisfaction of Coloured classes) is confirmed for group 1/2 ( $t = 6.20$ ) and group 3/4 ( $t = 7.79$ ) at the .01 level, but not for group 5/6. This finding is consistent with that for hypothesis 8B (Table V): this hypothesis (work satisfaction of White classes) is confirmed for group 7/8 ( $t = 4.65$ ) and group 9/10 ( $t = 6.18$ ) at the .01 level but not for group 11/12. Thus four out of six results support the reference-group theory: those workers who identify themselves with an upper-class adopt the standards and norms of that class, and therefore attach more importance to the content value of their work, form higher expectations about their jobs and are less easily satisfied than those workers who use a lower-class as their reference-group. These findings agree with the results obtained by Friendlander (1963) and Hulin (1966a). A suggestion for the reason for the non-confirmation of the theory for the upper-class groups is given at the end of this part of the present study.

Hypothesis 9A (pay satisfaction of Coloured classes) is only confirmed for group 3/4 ( $t = 3.50$ ) at the .01 level, but not for groups 1/2 and 5/6 (see Table III).

Hypothesis 9B (pay satisfaction of White classes) is confirmed for group 7/8 ( $t = 2.85$ ) at the .05 level of significance, but not for groups 9/10 and 11/12 (see Table V). The reason for the fact that the hypotheses were confirmed for only two out of six groups may be that the pay-on-commission basis worked as a disturbing variable: it is likely that pay levels would be rather different for all subjects and would have varied during the year for each representative, depending on how hard he worked and depending on his fortune (or misfortune) to get to work in "rich" (or "poor") areas. In "rich" areas it is undoubtedly much easier for a representative to sell his product than it is in a not so prosperous area. These two factors (work-tempo and area) influence his pay level and this, in turn, influences his satisfaction with it. Pay satisfaction will vary within all groups and the inconsistency of the results is, therefore, not surprising.

The reason that the prediction regarding pay satisfaction did not hold at all for the upper-class groups, may be that the pay-aspect of job satisfaction is more important for lower- and middle-classes than the other aspects. This results in the lower- and middle-class people being more concerned with what salary they get than, for instance, with what kind of people they work with, or what kind of supervision they get. The result may be that they compare themselves in this respect more frequently with their reference-groups, than they compare themselves regarding aspects of supervision, etc.

so that their reference-group's standards have relatively more influence on their pay satisfaction than on the other aspects of job satisfaction.

Hypothesis 10A (supervision satisfaction of Coloureds) is completely confirmed; for group 1/2 ( $t = -5.95$ ) and group 5/6 ( $t = -3.65$ ) at the .01 level and for group 3/4 at the .05 level of significance ( $t = -2.28$ ).

Hypothesis 10B (supervision satisfaction of Whites) is confirmed only for group 9/10 ( $t = -3.80$ ) at the .01 level, not however, for the other groups. However, the  $t$  ratios obtained for these two groups (7/8 and 11/12) were negative, like the others. This shows that also in these two cases the representatives who compare themselves with a class higher than that in which they regard themselves are more, though not significantly more, satisfied with the supervision they get than are those who compare themselves with other classes. Here, one result gives full support to the reference-group theory while the other results support it to some extent, and they agree with the findings of Thompson (1971): lower-class subjects who use an upper-class as their point of reference, have a lower level of self-perception than they would have if they used their own class as reference-group, and hence they perceive the supervisory style of their boss as more supportive and report high levels of satisfaction with supervision.

Hypothesis 11A (co-worker satisfaction of Coloureds) is confirmed for group 1/2 ( $t = 2.27$ ) and group 3/4 ( $t = 4.19$ ), but not for group 5/6.

Hypothesis 11B (co-worker satisfaction of Whites) is confirmed

for all groups.  $t$  ratios obtained for groups 7/8 and 9/10 are significant at the .01 level. That for group 11/12 at the .05 level.

These results support the inferences from the reference-group theory made in the present study that workers who compare themselves with upper-class people from prosperous communities become dissatisfied with their co-workers and that this dissatisfaction is caused by the perception of the difference between the upper-class norms and standards and those of their co-workers and by feelings of competition with their co-workers. Thus they are less easily satisfied with these co-workers than are people who compare themselves with their own class or a lower-class.

The results agree with findings of Hulin (1969). Data obtained in his study indicated an inverse relationship between community characteristics and co-worker satisfaction.

Hypothesis 12A (promotion satisfaction of Coloureds) is confirmed only for group 3/4 ( $t = 4.60$ ) at the .01 level, but not for the other two groups.

Hypothesis 12B (promotion satisfaction of White classes) is confirmed for group 7/8 ( $t = 2.27$ ) and group 9/10 ( $t = 4.45$ ) at the .05 and .01 levels, respectively. The hypothesis was not confirmed for group 11/12.

Here half of the results lend strong support to the reference-group theory: a lower-class worker who uses an upper-class in a prosperous community as reference-group, notices the range of attractive alternatives open to workers belonging to that upper-class and becomes dissatisfied as there not as many alternatives open to

himself, living in a low-prosperity community.

Like the results in studies by Hulin and Smith (1963) and Hulin (1966a), however, the results of the present study regarding promotion satisfaction were not consistent. The insignificant t-ratio obtained for lower-class Coloureds could possibly be explained in terms of feelings of ambition and social situation. Feelings of ambition were very likely not the same amongst all classes of workers. It is possible, for instance, that some lower-class Coloureds felt discouraged because they found themselves in the "lowest part" of their Coloured society, and, moreover, also subdued to the White society. This may have prevented them from even having any expectations or ambitions regarding promotion and influence coming from these sources may have been stronger than influences exerted by reference-groups.

The extent of discouragement of middle-class Coloureds may have been less (and looking at the results it probably was less) than that of lower-class Coloureds. Middle-class people at least have the lower-class beneath themselves, and after comparing themselves with lower-class people, they will consider themselves to be better off than those at the very lowest step of the economic and social ladder. This, in turn, may influence the extent to which they feel discouraged and to which they cherish hope and expectations regarding promotion.

The reason for the non-confirmation of the prediction regarding promotion satisfaction for the upper-class groups of Coloureds as well as Whites, may be related to the frequency of reference-group comparisons of upper-class people, as is pointed out at the conclusion of the discussions of hypotheses 1-14.

Finally, hypothesis 13A (overall satisfaction of Coloured classes) and hypothesis 14A (overall dissatisfaction of Coloureds) were both confirmed for group 3/4 ( $t = 2.90$  and  $-2.82$ ) at the .01 level, but not for the other groups.

Hypothesis 13B (overall satisfaction of White classes) and hypothesis 14B (overall dissatisfaction of Whites) were both confirmed for group 1/2 ( $t = 2.85$  and  $-2.57$ ) at the .05 level and for group 9/10 ( $t = 3.66$  and  $-4.47$ ) at the .01 level of significance.

Again, no support is found for the validity of Herzberg's (1959) suggestion that job satisfaction and job dissatisfaction are qualitatively different. As can be seen from Table III, group 3 is significantly more satisfied with the overall job than group 4 ( $t = 2.90$ ,  $p < .01$ ) but group 3 is also significantly less dissatisfied than group 4 ( $t = 2.82$ ,  $p < .01$ ); although no significant results are found for the other groups, they still do not support Herzberg's theory. (Group 1 is slightly more satisfied and less dissatisfied than Group 2;  $t = 1.34$  and  $-1.22$ ).

As can be seen from Table V, similar results on the measures of overall job satisfaction and dissatisfaction are obtained for the White sample: group 7 is significantly ( $p < .05$ ) more satisfied than group 8 and also significantly ( $p < .05$ ) less dissatisfied. Group 9 is significantly ( $p < .01$ ) more satisfied than group 10 and also significantly ( $p < .01$ ) less dissatisfied. No significant results were obtained for groups 11 and 12; group 11, however, is slightly less satisfied and more dissatisfied than group 12.

When we look at the  $t$  ratios for each class separately, we see that General Prediction B holds most true for middle-class Whites

and Coloureds and for lower-class Whites. For lower-class Coloureds it holds true for three of the seven measures of overall job satisfaction and aspects thereof, namely work-, supervision- and co-worker satisfaction. For middle-class Coloureds, all results were positive while for lower- and middle-class Whites only 2 out of the 14 results failed to reach the level of significance.

However, the prediction does not seem to hold at all for upper-class Coloured and White representatives, except for supervision satisfaction of Coloureds ( $t = 3.65$ ), and for co-worker satisfaction of Whites ( $t = 2.20$ ). One reason for the results obtained for the White sample may be that the amount of Whites, regarding themselves as "upper-class" was quite small. However, the amount of "lower-class" Whites was also rather small and significant  $t$  ratios were obtained anyway. Therefore there must be another reason.

It seems likely that someone who regards himself as belonging to an upper-class group, has a more favourable self-regard and a higher self-esteem than someone who rates himself as a lower-class person. Before he gives an answer to the question, "In which group or class do you regard yourself to be?", he thinks about himself in terms of property, salary, etc. and then places himself in a certain class. The upper-class person has generally more possessions than a lower-class person and this is likely to influence his self-regard and make it higher than that of a lower-class person. This, in turn, may influence the frequency with which he compares himself with other-class persons. An upper-class person would probably not experience the need to compare himself with other classes as often as lower- or middle-class persons, because he knows that he is at the "top-rank" of society in any case. On the other hand, a lower-class person

may want to compare himself to an upper-class much more frequently, as he wishes to see whether he has "reached a few steps higher on the social ladder", or whether he has, for instance moneywise, caught up somewhat with those higher up on the ladder.

This frequency of class-comparisons, finally, may be one of the factors influencing the extent to which the comparison with one's reference-group influences one's job satisfaction. If the suggestion that upper-class workers experience less need for comparison than do lower-class workers is a valid one, then we can understand why virtually none of the t-ratios obtained for the upper-class were significant: The frequency of comparisons of upper-class people with other classes was so low that the influence coming from the reference-group on their satisfaction was very small. This resulted in the different groups of upper-class Coloureds, and also those of upper-class Whites, being almost equally satisfied, so that no significant distinctions between the groups could be found.

Another explanation of the results may be provided by Merton (1957). He states that "of those located in the lower reaches of the social structure the (Western) culture makes incompatible demands. On the one hand, they are asked to orient their conduct toward the prospect of larger wealth (...) and on the other, they are largely denied effective opportunities to do so institutionally. The consequence of this structural inconsistency is a high rate of deviant behaviour". (Merton, 1957, p.146). As a result, these people may choose high but deviant ambitions. The Western culture "encourages the under-privileged to make extravagant reference-group comparisons". (Runciman, 1966, p.28).

Thus, Western culture preaches that "all men are equal" and that everybody should have equal chances and should be equally successful: the lower-class people should be able to be as successful as the upper-classes are. This cultural norm that everybody should be successful then results in a feeling of relative deprivation and dissatisfaction, as the people in the lower reaches of society choose reference-groups with standards much too high for them, so that they set their ambitions and expectations also too high.

From the fact that relatively much more confirmation was found for the first set of hypotheses (1 - 7) than for the second set (8 - 14) it may be suggested that in case of studies on job satisfaction of persons who are characterised by differences in class-level as well as by racial differences, it is the variable of "race" which is most important in reference-group studies.

Hypothesis 15:

(re: I-E Control)

From Table I it can be seen that the Coloured sample of the present study obtained a significantly lower mean score (12.40) on internal control than the White sample (M = 14.68). The t test yielded a ratio of -5.26, which indicates a significance of the difference between the means at the .01 per cent level. Thus the hypothesis that Coloureds are less internal and more external than Whites was confirmed. These findings support the suggestion that among subjects from the same cultural background, those who are denied the opportunity to obtain the material rewards in that culture - this is the case with the Coloured - tend to attribute what happens to them in their personal life to forces outside their control.

The results of the present study regarding I-E control of Coloureds and Whites agree with those obtained by Battle and Rotter (1963), Lefcourt and Ladwig (1965a; 1966), who found that Negroes were significantly more external than Whites, and who suggested the possibility that discrimination facilitates the growth of an external orientation. This suggestion was substantiated by the results of a study by Orpen (1971) in a study on South African Coloureds and Whites, offering firm support to the postulated relationship between I-E control and perceived discrimination. More evidence validating this relationship is offered by the results of the present study.

Hypotheses 16A and 16B:

(re: I-E Control)

Findings by Battle and Rotter (1963) indicated that the social class to which a person belongs influences his score on a measure of I-E control. They found, for instance, that lower-class Negroes were significantly more external than middle-class Negroes. Strodbeck (1958) found that Jewish middle-class and upper-class subjects could be differentiated from lower-class Italians on the basis of a variable, called "mastery", a concept which is related to the concept of internal control. Strodbeck found that most of the variance was attributable to the factor of social class.

These findings are in agreement with the results of the present study: From Table 6 it can be seen that the middle-class Coloureds ( $M = 11.86$ ) are significantly more internally-orientated than the lower-class Coloureds ( $M = 9.96$ ) and the upper-class Coloureds, in turn, scored significantly higher on internal control ( $M = 13.92$ ) than the middle-class Coloureds. The  $t$  ratios are significant at the .05 and the .01 per cent levels, respectively. Similar results were obtained for the Whites: the mean internal control score obtained by the upper-class Whites ( $M = 16.85$ ) is significantly higher than those obtained by the middle- and lower-class Whites. The mean score obtained by middle-class Whites ( $M = 14.70$ ) is significantly higher than that obtained by lower-class Whites ( $M = 12.57$ ). The application of the  $t$  test on these means yielded  $t$  ratios which were all significant at the .01 per cent level. Thus the present study lends strong support to the suggestion that social class determines the amount of a worker's internal (and external) control, and eliminates to some extent the cultural limitation of previous studies.

Hypothesis 17

(re: personal control)

From Table I it can be seen that the Coloured sample of the present study obtained a significantly lower mean score (2.71) on the measure of personal control on the I-E scale than did the White sample ( $M = 4.21$ ). This difference is significant at the .01 level ( $t = -9.63$ ) and confirms the hypothesis. The difference between the mean scores of the two samples on the measure of control ideology, however, was much smaller: the t test yielded a ratio of -2.15, which is significant at the .05 level only. These findings indicate that the significant difference between the mean scores on the I-E scale ( $t = -5.26$ ) was mainly achieved by the fact that the Coloureds scored much lower on the personal control measure than the Whites, the scores on the measure of control ideology in the I-E scale, however, were much less influential in achieving the great difference between the mean scores on the I-E scale.

These results agree with those achieved by Gurin et al (1969), who showed that the separation of personal and ideological levels was very useful and necessary when applying the measure of I-E control to Negro and White samples; furthermore, the results of the present study serve to remove, to some extent at least, the cultural limitation of the results obtained by Gurin et al, and show the use of taking separate measures of personal control and control ideology when making hypotheses about Internal-External control of people from different races. The findings indicate that Coloureds, in general, feel far less capable of controlling what happens in their personal life than do Whites. However, the difference between general beliefs of Coloureds and Whites regarding the role of internal

and external forces in determining success and failure at large,  
is not nearly as great as that between feelings of personal  
control.

Hypotheses 17:

(re: personal control and intrinsic/  
extrinsic job-aspects)

From Tables VIII and IX it can be seen that this hypothesis was partially confirmed. The correlation between the scores of the Coloured sample on the measure of personal control and those on the measures of satisfaction with the intrinsic job-aspects was much higher ( $r = .78$ ) than that between personal control and satisfaction with extrinsic job-aspects ( $r = .44$ ). The application of the  $t$  formula for differences between coefficients of correlation (Klugh, 1970, p.205) yielded a  $t$  ratio of 5.34, which is significant at the .01 level; thus, the measure of personal control on the I-E scale was much more highly correlated with satisfaction with intrinsic job-aspects than with the extrinsic ones, and the hypothesis was therefore confirmed for the Coloured sample. The Coloureds who scored high on the personal control measure expressed high satisfaction with the intrinsic job-aspects. They would express high expectancies of success and self-confidence in their abilities for job performance if a test measuring these feelings was administered to them.

In order to examine whether the measures of personal control and control ideology operated in different ways, as in the study by Gurin et al (1969) of Negroes and Whites, the  $t$  formula for correlations was also applied to the correlations between the I-E scale and satisfaction with intrinsic and extrinsic job-aspects; in addition it was applied to the correlations between the measure of control ideology and satisfaction with intrinsic and extrinsic job-aspects. The correlation between the Coloured subjects' I-E control and satisfaction with intrinsic job-aspects was .46, that between

I-E control and satisfaction with extrinsic job-aspects was .34. The t formula yielded a t ratio of .13, which indicated that the correlation of measures of the Coloureds' internal-external control with those of satisfaction with intrinsic job-aspects is not significantly different from the correlation of measures of the Coloureds' I-E control with those of satisfaction with extrinsic job-aspects. The correlation between the Coloureds' scores on the measure of control ideology and those on the measure of satisfaction with intrinsic job-aspects was .16, that between control ideology and satisfaction with intrinsic job-aspects was .21. The t formula yielded a t ratio of .45, which is insignificant. These results indicate that in the case of the Coloured sample it is the measure of personal control and not that of control ideology or I-E control that is related to satisfaction with intrinsic job-aspects. Those who scored high on the measure of personal control were highly satisfied with the intrinsic job-aspects, work and promotion, as these aspects came up to their aspirations of prestigious and demanding jobs. In contrast, the general beliefs of these Coloureds regarding the determinants of success and failure (control ideology) and also the combination of the measures of personal control and control ideology, were hardly related to satisfaction with intrinsic job-aspects and have nothing to do with expectancies regarding a job or with job-aspirations.

Next, the White sample's scores were examined. The correlation between the scores of the White sample on the measure of personal control and those on the measures of satisfaction with the intrinsic job-aspects was higher ( $r = .69$ ) than that between personal

on this topic would be very useful. Not only measures of subjects' personal control and job satisfaction should then be taken, but also a test of the subjects' expectancies and experiences of job success and self-confidence in their abilities for job performance should be administered.

According to the results of the present study feelings of high personal control are related to high satisfaction with intrinsic job-aspects, namely work and promotion. Promotion is in the present study seen as an intrinsic job-aspect because it is something that results from high quality and quantity work, delivered by a worker which, in turn, results from that worker's enthusiasm for and ambition in his work, which is an intrinsic job-aspect. These two job-aspects are seen as being closely associated with each other.

High satisfaction with promotion results from the fact that promotion of the worker has already taken place one or more times, or that the opportunities for promotion are largely available. Promotion of a worker is likely to result from the fact that he works hard and has enthusiasm for his work, as his promotion depends on the opinion of his supervisor about him as well as his quality and quantity of work done. Furthermore, high satisfaction with work is also related to feelings of high personal control. The abovementioned characteristics of a worker, namely his enthusiasm for his work, the capability to delivery high quality work and to work hard, are important to any employer. Therefore it seems advisable that an employer should test the feelings of personal control of his workers, and that he should try to boost these feelings, for instance by means of training, teaching, etc. From the other previous discussions on

I-E control and from the results, confirming the hypotheses that especially non-White and lower-class people express feelings of low personal control, it is concluded that an employer should concentrate on that kind of worker. Finally, he may make use of the reference-group theory in order to understand more of these workers' satisfaction with different aspects of their jobs.

Looking at the correlational matrices on pages 122 and 123 of the present study, it can be seen that especially the relationship between supervision-satisfaction and feelings of personal control for both Coloureds and Whites was very low. For the White sample there was even no relationship at all. This may be an indication that the subjects derived their sense of personal control from other persons or things, but not from their supervisor, and that in the company concerned the supervisors are not effective in inspiring feelings of personal control into their subordinates. If the company had given more attention to this issue, then the correlations might have been different.

The importance of giving people a sense of personal control is stressed by Lefcourt (1966, p.218). "In addition, the breakdown of external-control expectancies assumes more than a theoretical interest when programs are currently being devised by governmental agencies seeking to ameliorate problems of poverty and racial barriers, the very problems which seem to generate external-control orientation and their concomitants of apathy and lack of goal-striving behaviour".

Finally, it may be suggested that an individual's I-E control is related to the extent to which his feelings of job-satisfaction are influenced by the norms and standards of his reference-group.

From Rotter's (1966) discussion on I-E control it can be learnt that persons who feel highly internally controlled, also feel that what happens to them in their lives is mainly the result of their own behaviour, whereas those who have a high sense of external control, feel that their lives are controlled by external forces, or by other people, independent of their own actions.

Such an externally orientated person may, for instance, feel that whether he will be promoted is much more dependent on his supervisor's opinions than upon his own way of working or upon his capacities. He thus feels very dependent on other people. An important part of this group of "other people" will be made up out of his "job-reference-group", to which he compares himself in connection with various aspects of his job. As he feels very dependent on this group, he will set his standards regarding his job according to those of the group, much more than he sets them himself. Consequently, he hopes to be able to live and work up to these standards. If, however, after comparing himself to his reference-group it appears that he is not capable of doing so, or if it appears that, for instance, the people within that group ascribe low prestige to his job, then his job satisfaction will be considerably reduced.

On the other hand, a worker with a high sense of internal control feels much more capable to direct things related to his job himself. He feels, for instance, that whether he is promoted is much more dependent on his own actions, capacities and personality, than upon the decision of his superiors. Although he has a reference-group to compare himself to, he will probably set his standards more according to his own opinions and capacities (as he feels quite certain of himself)

than by the standards of his reference-group. Therefore the feelings of job satisfaction of such an internally-oriented person are likely to be much less influenced by comparisons with his reference-group, or by opinions held by people within that group, than will the job satisfaction of an externally-orientated person.

Lefcourt and Ladwig (1965b) studied the relations between Negroes' reference-groups and their feelings of internal-external control. In their hypotheses they stated that "Negroes have usually displayed failure-avoidant behaviour in biracial achievement situations. However, when such achievement tasks are construed as related to competence in a role in which Negro subjects have already had some success experience, expectancy of success should increase." (Lefcourt & Ladwig, 1965b, p.668). This was indeed, confirmed by their results: all their Negro subjects turned out to be more failure-avoidant and externally controlled than the Whites. However, those Negroes who played a competitive game against Whites, and who were led to believe that they had been chosen because of their musical interests (they were all successful musicians) persisted in competition against their White opponents significantly longer than those who had joined but quite soon quit a musical group, and who were led to believe that they had been chosen because of their musical interests, and those who were not given that cue and who had never been musicians at all. Thus it was shown how reference-group manipulation can change the failure expectancies of a person who is usually highly externally controlled: the reference-group of the first group of Negroes was formed by their musical group, that of the other two groups by their racial group.

Another interesting topic is the relation between a worker's feeling of I-E control and the kind of reference-group he chooses. It may be suggested that an internally-orientated worker is more inclined to take a class higher than his own as his point of reference, than is an externally-orientated person. For an "internal-control" it may represent a challenge to attempt to reach the standards and norms of such a higher reference-group, and he probably has more hope and self-confidence that he will be able to reach those standards than has an externally-orientated person. For an external-control, on the other hand, the possibility of a subsequent deception would be greater, as the standards of his reference-group would be much higher than his own.

However, the validity of the abovementioned suggestion seems to be disproved by the evidence of recent studies: Mahone (1960) hypothesized that subjects "who are high in achievement motivation and low in anxiety about failure should be judged more realistic in aspiring to vocations that are commensurate with their ability than subjects who are low in achievement motivation and high in anxiety." (Mahone, 1960, p.253). This was indeed the case: the high-motivation subjects aspired to vocations matching their abilities, whereas low-motivation subjects aspired to vocations that were either too difficult or too easy in terms of their abilities. Thus these subjects appeared to be unrealistic in their aspirations. It was also shown that those who were low in motivation tended to be inaccurate when estimating their abilities.

Furthermore, Bernstein (1963) found that the subjects with high fear of failure appeared to be more likely to think that they would be

able to achieve occupations on an unrealistically high level, than were subjects with low fear of failure. Morris (1966) obtained similar results: subjects who were high in achievement-related motivation were significantly more realistic in their vocational choice than those low in achievement-related motivation.

Lefcourt and Ladwig (1965a) examined Negroes' expectancies of control of reinforcements and the relations thereof with their test performance and achievement striving. The Negroes scored significantly higher on the I-E control scale than the Whites. They also appeared to be irrational in their goal-setting: they were given certain tasks and after each task they were asked to predict their score in the next task. The changes in these predictions after each task were recorded and the results indicated that the Negro subjects made a significantly greater number of changes than Whites, which indicated that they did not use their experience of the previous tasks to make a realistic prediction. They also made a significantly greater number of unusual shifts (prediction of a high score after failing, prediction of a low score after success), which also indicated that they could not evaluate their abilities in a realistic way, and that they felt externally-controlled.

The low-motivation, high fear of failure subjects in the above-mentioned studies show the characteristics of externally-controlled persons (Gurin et al, 1969). These persons were also unrealistic in their self-evaluations, giving judgements of their capacities which were either too high or too low. Furthermore, they were unrealistic in their goal-setting. From this sort of findings it may be argued that these subjects would also be unrealistic in setting their goals

in terms of reference-groups: they would like to reach their reference-group's norms and standards which would be either too high or too low for them, whereas internally-controlled persons would be more realistic in their judgements of their own capacities and, thus, choose a reference-group whose norms and standards would be attainable for them.

This suggestion is, to some extent, supported by the results of the present study (See Table X). Considerable differences were found between mean scores on the measure of personal control obtained by lower- and middle-class Coloureds and Whites, comparing themselves to their membership reference-group, and those obtained by lower- and middle-class Coloureds and Whites, comparing themselves to a higher or lower comparative reference-group. For the Coloured upper-class groups the difference was somewhat smaller than for the other Coloured groups, although those, comparing themselves to their membership reference-group still scored somewhat higher on the measure of personal control ( $M = 3.42$ ) than those, comparing themselves to a higher or lower comparative reference-group ( $M = 3.33$ ). The abovementioned suggestion was not supported by the results obtained for the upper-class White groups.

Further research is needed to establish more facts about the relations between feelings of personal control and the tendency to choose a higher or lower reference-group and to investigate the validity of the abovementioned suggestion.

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The present research was designed to assess the validity of the reference-group theory when applied to groups of white-collar (sales) personnel employed by a large life assurance company. The research design was similar to the study by Hulin (1966a) in that only employees from one company were studied and group-satisfaction measures were used. The present research had the added advantage of controlling what reference-group was actually used by each worker, instead of assuming that each employee simply used the community in which he lived as his point of reference. Moreover, subjects from different racial groups were used. This research should then be considered as a continuation and extension of the work by Hulin (1965, 1966a/b and 1969) and research by Orpen (1974b), and represents a more detailed exploration of specific relations suggested by previous work. Thus, while there are differences in approach, part of this research fits into the framework of the Cornell studies on Job Satisfaction.

The present study contains an investigation into the behaviour of different areas of job satisfaction and the influence of different reference-groups on each of these areas, as an attempt to clarify certain findings of previous studies.

The results of this study indicate that a conceptualization of job satisfaction must necessarily recognise the part played by frames of reference used by the workers, and that research on job satisfaction, taking these frames of reference into account, is able to show how they influence the various areas of job satisfaction. These results also throw doubt upon the validity of the suggestion by Herzberg (Herzberg, Mausner and Snyderman, 1959), that the

determinants of how a man reacts to his job are to be found in the intrinsic characteristics of the job, and not in the environmental characteristics surrounding the job. Community and situational variables, making up one's frame of reference, can no longer be considered as moderator variables or nuisance variables. The direct effect of these variables on satisfaction must be considered.

Most previous studies on the relations between reference-groups and job satisfaction have used subjects belonging to only one racial group (most often Whites). Relatively little research has been done on frames of reference held by different racial groups. As cross-racial studies are an essential and often neglected step in the attempt to find wide-range generalisations about human behaviour - a necessary goal if psychology is to be regarded as a science - the present study used subjects belonging to different racial groups. The results show that people from different races approach their jobs with different frames of reference which can be identified and which are related to their job satisfaction.

Furthermore, the present study shows how people from different races react differently on the measure of Internal-External control and can be seen as an extension of the study by Gurin et al (1969) of I-E control of Negroes and Whites; as this study was culture-bound, the present study removed, to some extent at least, this limitation and increased the generality of the underlying theory.

The relation between workers' I-E control and job satisfaction was investigated and evidence was obtained for a positive relationship between feelings of internal control and satisfaction with intrinsic job-aspects. At the end of the discussion of the results possible

relationships between the I-E concept and the reference-group concept, were discussed.

In summary, the results confirmed the major hypotheses, namely:

1. "Provided Coloured and White workers compare themselves with their own racial groups and are engaged in similar jobs, Coloured workers are more satisfied and less dissatisfied with their jobs than are White workers".
2. "Workers who compare themselves with a higher comparative reference-group are less satisfied with their jobs than are workers who compare themselves with their membership group or with a lower comparative reference-group, provided that all these workers are engaged in similar jobs".
3. "Coloureds are less internally-orientated than Whites and express less sense of personal control".
4. "Workers' feelings of personal control are more highly related to their feelings of satisfaction with intrinsic than with satisfaction with extrinsic job-aspects".

Naturally, some cautions have to be taken into account in interpreting this study. The problem in generalising about the conclusions made in the study is that these conclusions are nearly always only valid with reference to a particular society at a particular time. Conclusions usually have to be drastically revised and research has to be replicated when we consider human behaviour in a different social setting. Some psychologists even contend that results from psychological experiments are only valid for the sample tested at the particular time and should not be carried any further.

Although the present study has been successful in controlling possible disturbing variables, it still possesses all the difficulties inherent in questionnaires and self-report data generally. The main problem is that it is impossible to measure attitudes etc. directly.

As Brown (1954) says: "The concept of attitude postulates a hypothetical mental structure in order to explain what goes on between stimulus and response". (p.162). Because attitudes are hypothetical constructs, they can only be measured indirectly on the basis of certain inferences drawn from an individual's overt behaviour or from oral or written expression of his experiences, feelings, thoughts, etc. It has often been argued that the only valid way to judge attitudes is by what a person does, not by what he says or writes in a questionnaire. Besides this problem of indirect measures, the factor of social desirability for instance, or extremeness in responding may interfere in such a way that it will produce a biased reaction in the respondents.

The present study has confined itself solely to questionnaires and thus is open to this objection, although attempts have been made to reduce influences from the abovementioned kind of factors as much as possible.

Finally, I would like to make some remarks about the questionnaire itself. In a few cases the Job Description Index was not answered correctly: only one item in each scale had been answered. The heading at each scale, however said "Don't give more than one answer to each item". Although the instructions seem to be clear enough, this one sentence may have confused these (very few) people. Their questionnaires have not been used for this study.

Furthermore, the question on the last page of the questionnaire conjured up quite a few emotional responses, which shows how careful one has to be in asking questions which have something to do

with racial feelings. A careful introduction to this question might have been wise. Some of the comments given to this last question can be found in Appendix II.

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APPENDIX 1A and 1B

## APPENDIX 1A

Actual scores obtained by the sample of 98 Coloureds

Tests	Job Descriptive Index					Int.-Ext. Control			Overall Job Satisfaction			* ↓
	Wo	Su	Pe	Pa	Pr	I-E.	PC.	C.I.	J.S.	J.D.	l,m,u	
<u>Subjects</u>												
1	54	46	54	27	27	12	4	8	7	1	1	→
2	54	47	54	26	27	12	4	8	7	1	1	→
3	50	46	45	19	27	10	5	5	6	2	1	→
4	54	49	54	27	21	13	4	9	7	1	1	→
5	47	50	51	27	27	11	3	8	6	1	1	↑
6	48	54	53	23	25	10	3	7	6	2	1	↑
7	49	54	24	27	21	14	3	11	7	1	1	↑
8	36	48	35	14	23	5	0	5	3	5	1	↑
9	48	53	47	27	27	10	3	7	7	1	1	↑
10	45	54	48	23	27	10	2	8	7	2	1	↑
11	45	54	45	22	22	8	2	6	6	2	1	↑
12	47	54	49	24	24	8	2	6	7	1	1	↑
13	46	54	45	27	27	13	2	11	7	1	1	↑
14	39	52	50	27	27	11	1	10	6	1	1	↑
15	38	50	47	23	21	8	0	8	5	2	1	↑
16	47	54	49	27	24	12	3	9	7	1	1	↑
17	47	54	48	27	25	10	2	8	7	1	1	↑
18	46	54	45	27	25	8	3	5	7	1	1	↑
19	35	45	33	19	6	6	0	6	4	4	1	↑
20	45	53	45	24	27	12	2	10	7	1	1	↑
21	47	53	54	22	27	9	2	7	7	2	1	↑
22	41	52	49	27	25	7	0	7	6	2	1	↑
23	46	54	45	27	27	10	2	8	7	1	1	↑
24	54	51	54	26	27	12	5	7	7	1	m	↓
25	52	50	50	23	27	14	4	10	7	2	m	↓
26	54	54	52	27	27	8	4	4	7	1	m	↓
27	52	52	52	27	27	12	4	8	7	1	m	↓
28	48	48	49	27	25	16	3	13	6	1	m	↓
29	48	46	48	27	24	8	3	5	6	2	m	↓

\* The last two columns indicate in what class the workers regard themselves (l = Lower class; m = middle-class, u = upper-class), and whether they compare themselves with a class lower than (↓), equal to (→), or higher than their own class.(↑)

APPENDIX 1A - Continued

<u>Tests</u>	<u>Job Descriptive Index</u>					<u>Int.-Ext. Control</u>			<u>Overall Job Satisfaction</u>			
	Wo	Su	Pe	Pa	Pr	I-E.	PC.	C.I.	J.S.	J.D.	l,m,u	↕
<u>Subjects</u>												
30	54	50	54	27	26	10	4	6	7	1	m	→
31	52	50	53	27	25	12	4	8	7	2	m	→
32	46	54	47	25	25	17	4	13	6	2	m	↑
33	36	50	39	14	9	7	1	6	4	4	m	↑
34	44	54	48	27	25	16	3	13	7	2	m	↑
35	47	54	50	27	27	16	3	13	7	1	m	↑
36	43	54	48	22	24	8	2	6	6	2	m	↑
37	37	52	33	19	20	7	0	7	3	5	m	↑
38	41	51	45	24	20	10	1	9	5	3	m	↑
39	43	54	47	21	22	10	2	8	6	2	m	↑
40	42	54	51	26	21	12	1	11	6	2	m	↑
41	47	54	52	27	25	14	2	12	7	1	m	↑
42	42	54	45	27	23	14	1	13	7	2	m	↑
43	41	53	33	25	24	12	1	11	6	1	m	↑
44	40	51	50	15	20	14	1	13	5	2	m	↑
45	40	51	47	17	20	10	1	9	5	3	m	↑
46	47	54	49	27	22	16	3	13	7	1	m	↑
47	41	48	45	18	22	12	1	11	6	3	m	↑
48	45	52	47	26	21	12	1	11	6	2	m	↑
49	39	46	38	17	18	8	0	8	4	4	m	↑
50	47	54	47	26	23	12	2	10	7	2	m	↑
51	46	54	47	27	23	13	2	11	7	1	m	↑
52	53	46	49	24	24	11	4	7	7	2	u	↓
53	54	50	54	22	27	14	4	10	7	1	u	↓
54	54	50	54	27	27	17	4	13	7	1	u	↓
55	49	48	50	23	25	10	3	7	6	2	u	↓
56	52	54	52	27	27	18	1	13	7	1	u	↓
57	54	50	53	26	26	14	4	10	7	1	u	↓
58	53	48	54	26	27	12	4	8	7	2	u	↓
59	50	47	49	26	20	16	3	13	6	2	u	↓
60	53	49	52	27	26	13	3	10	7	1	u	↓
61	54	51	50	27	25	15	4	11	7	1	u	→
62	54	54	52	25	25	15	4	11	7	2	u	→
63	54	54	54	22	27	15	5	10	7	1	u	→

## APPENDIX 1A - Continued

Tests	Job Descriptive Index					Int.-Ext. Control			Overall Job Satisfaction			
	Wo	Su	Pe	Pa	Pr	I-E.	PC.	C.I.	J.S.	J.D.	l,m,u	↕
<u>Subjects</u>												
64	54	50	54	27	27	14	4	10	7	1	u	→
65	52	49	54	27	27	18	5	13	7	1	u	→
66	48	53	50	27	26	14	3	11	6	1	u	→
67	48	53	53	26	26	9	3	6	6	2	u	→
68	50	51	53	27	19	12	3	9	6	2	u	→
69	45	50	47	17	20	11	2	9	5	3	u	→
70	54	54	54	23	27	12	4	8	7	1	u	→
71	49	54	54	27	27	14	4	10	7	1	u	→
72	52	54	54	23	26	18	5	13	7	1	u	→
73	53	53	53	25	25	13	4	9	7	2	u	→
74	54	52	50	23	27	11	4	7	7	1	u	→
75	54	54	51	27	22	10	3	7	7	1	u	→
76	49	50	49	27	25	14	3	11	6	2	u	→
77	48	53	50	26	24	14	2	12	6	1	u	→
78	53	52	48	26	25	14	3	11	6	2	u	→
79	54	54	53	27	26	18	5	13	7	1	u	→
80	50	53	52	26	23	12	3	9	6	1	u	→
81	54	54	50	26	27	14	4	10	7	1	u	→
82	53	54	54	23	27	17	4	13	7	1	u	→
83	53	48	54	20	22	17	4	13	7	1	u	→
84	54	53	54	24	23	16	4	12	7	1	u	→
85	50	52	52	22	23	14	3	11	6	1	u	→
86	51	54	53	27	27	12	3	9	7	1	u	→
87	51	54	50	25	27	14	3	11	7	1	u	→
88	54	53	52	26	25	14	4	10	7	2	u	→
89	48	51	48	27	27	11	3	9	6	1	u	→
90	54	54	54	27	26	17	4	13	7	1	u	→
91	50	53	54	27	27	10	3	7	7	1	u	→
92	48	54	50	23	27	16	3	13	7	1	u	→
93	49	54	51	23	25	16	3	13	7	1	u	→
94	48	54	52	22	25	16	3	13	7	2	u	→
95	52	51	54	24	27	14	4	10	7	1	u	→
96	52	50	50	27	26	17	4	13	6	1	u	→
97	41	48	46	15	20	12	1	11	6	3	u	→
98	35	45	47	16	21	9	0	9	5	3	u	→

## APPENDIX 1B

Actual scores obtained by the sample of 95 Whites

Tests	Job Descriptive Index					Int.-Ext. Control			Overall Job Satisfaction			
	Wo	Su	Pe	Pa	Pr	I-E.	PC.	C.I.	J.S.	J.D.	l,m,u	↕
<u>Subjects</u>												
1	51	50	51	24	27	15	5	10	7	1	1	→
2	44	33	40	18	24	11	4	7	5	3	1	→
3	48	19	48	22	26	13	5	8	6	2	1	→
4	49	54	48	21	27	13	5	8	6	2	1	→
5	43	35	45	19	25	12	4	8	6	3	1	→
6	48	37	47	17	25	14	8	9	6	2	1	→
7	51	50	50	27	27	15	5	10	7	1	1	→
8	50	48	51	24	27	16	5	11	7	2	1	→
9	48	35	50	24	25	14	5	9	6	1	1	→
10	45	48	48	21	25	13	4	9	6	2	1	↑
11	30	39	40	6	18	10	3	7	4	4	1	↑
12	28	35	31	8	17	11	3	8	3	5	1	↑
13	15	40	23	3	7	8	2	6	2	6	1	↑
14	35	49	40	18	20	15	4	11	6	2	1	↑
15	45	50	45	26	27	11	4	7	7	1	1	↑
16	33	45	38	13	25	11	3	8	3	5	1	↑
17	32	45	37	15	25	7	3	4	3	5	1	↑
18	40	49	45	19	26	13	4	9	6	2	1	↑
19	45	50	42	25	27	18	5	13	7	1	1	↑
20	42	51	38	17	24	14	4	10	5	3	1	↑
21	34	44	25	5	23	10	3	7	4	4	1	↑
22	51	40	51	20	25	15	5	10	6	2	m	↓
23	51	41	52	22	25	15	5	10	6	1	m	↓
24	50	38	48	19	24	15	4	11	6	2	m	↓
25	48	22	46	19	23	13	4	9	6	3	m	↓
26	45	40	54	20	27	17	4	13	7	2	m	↓
27	48	41	47	18	27	15	5	10	6	2	m	↓
28	49	35	43	20	27	15	5	10	6	2	m	↓
29	49	34	50	22	26	16	5	11	6	2	m	↓
30	50	40	50	27	27	18	5	13	7	1	m	↓
31	48	23	48	21	27	13	5	8	6	2	m	↓
32	35	20	48	14	25	12	3	9	5	3	m	↓
33	45	42	47	19	24	17	4	13	6	2	m	↓
34	51	45	50	19	27	17	5	12	7	2	m	↓

APPENDIX 1B - Continued

<u>Tests</u>	<u>Job Descriptive Index</u>					<u>Int.-Ext. Control</u>			<u>Overall Job Satisfaction</u>			
	Wo	Su	Pe	Pa	Pr	I-E.	PC.	C.I.	J.S.	J.D.	l,m,u	
<u>Subjects</u>												
35	45	34	48	18	24	14	4	10	6	3	m	→
36	51	54	51	27	27	18	5	13	7	1	m	→
37	48	33	48	27	27	16	5	11	6	1	m	→
38	49	25	48	27	26	18	5	13	7	2	m	→
39	47	26	49	20	25	14	4	10	6	2	m	→
40	43	34	45	13	24	13	4	9	5	3	m	→
41	50	40	40	27	25	16	5	11	6	1	m	→
42	45	35	42	12	24	15	4	11	5	3	m	→
43	48	39	35	18	27	17	5	12	6	2	m	→
44	47	39	40	21	27	16	5	11	6	2	m	→
45	35	40	40	17	25	12	3	9	5	3	m	→
46	33	37	41	16	25	17	4	13	5	3	m	→
47	32	38	45	20	24	17	4	13	5	3	m	→
48	51	40	50	26	27	18	5	13	7	1	m	→
49	48	43	48	21	26	1	1	0	6	2	m	→
50	50	45	51	26	27	18	5	13	7	1	m	→
51	48	38	42	23	27	17	4	13	6	2	m	→
52	47	36	42	25	26	14	5	9	6	2	m	→
53	35	39	40	17	24	12	3	9	5	3	m	→
54	33	35	36	16	23	11	3	8	5	3	m	→
55	47	40	43	19	25	18	5	13	6	2	m	→
56	49	33	45	15	24	16	4	12	6	2	m	→
57	33	30	26	8	23	12	3	9	3	5	m	↑
58	42	35	40	14	25	17	4	13	6	2	m	↑
59	29	40	42	5	22	12	3	9	4	4	m	↑
60	30	41	42	7	20	10	3	7	4	4	m	↑
61	31	39	39	4	21	13	3	10	4	4	m	↑
62	45	50	41	14	22	17	4	13	6	2	m	↑
63	33	36	35	12	23	12	3	9	3	5	m	↑
64	35	51	38	20	24	13	4	9	5	3	m	↑
65	36	49	40	19	20	15	4	11	6	3	m	↑
66	37	50	44	27	20	15	4	11	6	2	m	↑
67	45	54	45	27	25	18	5	13	7	2	m	↑
68	45	52	42	27	24	18	5	13	6	2	m	↑

APPENDIX 1B - Continued

<u>Tests</u>	<u>Job Descriptive Index</u>					<u>Int.-Ext. Control</u>			<u>Overall Job Satisfaction</u>			
	Wo	Su	Pe	Pa	Pr	I-E.	PC.	C.I.	J.S.	J.D.	l,m,u	
<u>Subjects</u>												
69	28	48	21	9	22	9	3	6	3	5	m	↑
70	35	50	33	15	24	15	4	11	5	3	m	↑
71	35	42	42	18	24	18	4	13	6	2	m	↑
72	33	50	42	14	21	14	4	10	5	4	m	↑
73	18	32	20	3	12	12	2	10	1	6	m	↑
74	33	49	18	12	11	13	4	9	3	5	m	↑
75	34	48	33	12	20	15	4	11	4	4	m	↑
76	50	38	42	27	22	18	5	13	6	2	u	↓
77	48	37	48	27	24	17	5	12	6	2	u	↓
78	49	40	48	23	24	17	5	12	6	2	u	↓
79	47	27	48	22	27	18	5	13	6	1	u	↓
80	50	36	48	20	27	17	5	12	6	2	u	↓
81	50	28	45	16	22	16	5	11	5	3	u	↓
82	48	25	54	17	24	16	5	11	5	3	u	↓
83	49	35	48	27	27	17	5	12	6	2	u	↓
84	51	33	54	27	27	18	5	13	7	1	u	↓
85	50	54	49	27	27	18	5	13	7	2	u	↓
86	48	40	48	21	25	16	5	11	6	2	u	↓
87	47	40	48	20	24	17	4	13	6	2	u	↓
88	48	37	42	25	25	17	4	13	6	2	u	↓
89	42	39	41	11	21	16	4	12	5	3	u	↓
90	47	40	45	18	25	16	5	11	6	2	u	→
91	46	41	46	18	22	14	4	10	6	2	u	→
92	46	40	44	19	22	16	4	12	6	2	u	→
93	48	38	45	20	26	17	5	12	6	2	u	→
94	49	37	45	23	24	18	5	13	6	1	u	→
95	50	35	45	23	25	18	5	13	6	2	u	→

APPENDIX II

Please indicate to which group you regard yourself.  
Put a cross beside that group.

- |                       |    |                    |    |
|-----------------------|----|--------------------|----|
| upper-upper coloureds |    | upper-upper whites |    |
| lower-upper           | .. | lower-upper        | .. |
| upper-middle          | .. | upper-middle       | .. |
| lower-middle          | .. | lower-middle       | .. |
| upper-lower           | .. | upper-lower        | .. |
| lower-lower           | .. | lower-lower        | .. |

I DO NOT SEE MYSELF AS A "COLOURED" PERSON BUT AS A HUMAN BEING WITH A BEAUTIFUL PIGMENTATION. I MEET AND MIX WITH ANYBODY. THERE ARE NO "CLASSES" OF PEOPLE.

I JUDGE PEOPLE BY INDIVIDUAL MERIT, BY CHARACTER ALONE, NOT BY SOCIO-ECONOMIC STANDARDS.

Please indicate to which group you compare yourself.

Put a cross beside that group.

- |                       |    |                    |    |
|-----------------------|----|--------------------|----|
| upper-upper coloureds |    | upper-upper whites |    |
| lower-upper           | .. | lower-upper        | .. |
| upper-middle          | .. | upper-middle       | .. |
| lower-middle          | .. | lower-middle       | .. |
| upper-lower           | .. | upper-lower        | .. |
| lower-lower           | .. | lower-lower        | .. |

I COULDN'T CARE LESS ABOUT CLASSES OF WHITES. I DO NOT MEET MANY OF THEM BUT I DO HATE THE PATERNALISM SHOWN BY SOME OF THEM, THE GOOD EXCEPTED.

I CONSIDER MYSELF A FAIR MATCH FOR ANY MAN, INTELLECTUALLY AND OTHERWISE. SOCIAL, RACIAL AND ECONOMIC LEVELS ARE TO ME IRRELEVANT.

IT IS THE MIND AND THE CHARACTER THAT MAKE THE REAL MAN?

THANK YOU.

Please indicate to which group you regard yourself.  
Put a cross beside that group.

upper-upper coloureds		upper-upper whites	
lower-upper	„	lower-upper	„
upper-middle	„	upper-middle	„
lower-middle	„	lower-middle	„
upper-lower	„	upper-lower	„
lower-lower	„	lower-lower	„

*I regard myself only as a person, not a black white or blue one.*

Please indicate to which group you compare yourself.

Put a cross beside that group.

upper-upper coloureds		upper-upper whites	
lower-upper	„	lower-upper	„
upper-middle	„	upper-middle	„
lower-middle	„	lower-middle	„
upper-lower	„	upper-lower	„
lower-lower	„	lower-lower	„

THANK YOU.

Please indicate to Which group you regard yourself.  
Put a cross beside that group.

THIS PART OF THE SURVEY DOES NOT INTEREST ME.

upper-upper coloureds   
lower-upper   
upper-middle   
lower-middle   
upper-lower   
lower-lower

upper-upper whites   
lower-upper   
upper-middle   
lower-middle   
upper-lower   
lower-lower

Please indicate to which group you compare yourself.

Put a cross beside that group.

upper-upper coloureds   
lower-upper   
upper-middle   
lower-middle   
upper-lower   
lower-lower

upper-upper whites   
lower-upper   
upper-middle   
lower-middle   
upper-lower   
lower-lower

THANK YOU.