Some Sociological Aspects of Nutrition and Development in South Africa

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SUMMARY

This paper is concerned with the development of the full person, i.e. meaningful participation of the individual in the economic and political processes and the acquisition of a sense of self-respect, confidence and responsibility. Malnutrition is largely a social problem in the sense that it occurs under adverse social conditions such as poverty and disrupted family life. As a social problem it can best be solved under conditions of sound development in all the abovementioned respects.

Since underdevelopment and malnutrition in South Africa occur mainly among Blacks, malnutrition is a basic aspect of the problem of race relations in South Africa, i.e. a problem that stands squarely in South African politics.

Individuals such as doctors, health officers and social workers and organisations concerned with development and nutrition, are therefore involved in the basic political issues of the country. It is my plea that, while they should avoid partisan, emotional involvement, they should not shy away from their democratic responsibility to express themselves on basic political issues that affect development and nutrition.

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A review of the South African literature in the medical field produced a large volume of studies on nutrition and development by scholars in the field of medicine. Many of these testify to a comprehensive approach to the problem and thorough attention to the socio-economic aspects of nutrition and development. Some of the scholars working in co-operation with medics or associated medical institutions, especially the National Nutrition Research Institute, are, in fact, social scientists and even sociologists, like myself. They are, however, operating mostly from within a medical institutional framework. One argument that I am presenting is that one's analysis of situations, one's interpretations of facts and figures, and one's approach to these matters are to a large extent a reflection of one's immediate environment, including one's institutional affiliation. One's frame of mind reflects the values, interests and objectives of the group to which one belongs.

As someone completely detached from the medical institutional framework, I will attempt to present to you

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my assessment of some sociological aspects of nutrition and development.

DEVELOPMENT OF THE FULL PERSON

The effects of malnutrition on development have been traced by many scholars. All nutrition authorities agree that adequate nutrition is of the greatest importance for the young child and that lack of nutrition causes serious impediments. Berg¹ lists several aspects of economic development that are impeded by poor nutritional status of a population, and Evans et al.² argue that results of research into this field have demonstrated a fairly consistent relationship between malnutrition and intellectual development.³

Many scholars emphasise the socio-economic aspects of nutrition. I want to make a plea for an emphasis on the sociopsychological and cultural aspects of development. I would like to view development in a broad sense—as development of the *full person*. Development in this sense encompasses *economic*, *political* and *sociocultural* development. Only within this perspective will we be able to assess properly the sociological complexities of the problems surrounding nutrition and health.

Development of the full person presumes in the cases of economic and political development meaningful participation of the individual in the respective processes. Without meaningful economic participation, the labourer is merely a cog in a machine who does not have any share in the making of decisions affecting his work and working conditions. The basic condition of meaningful participation in the political process is grass-roots activity. What is essential is that the individual must have the opportunity to acquaint himself with the political issues of his time, to formulate and express some opinion on them, and to feel that his opinion counts somewhere, even if only on a local level.

Under favourable conditions an individual develops some sense of self-worth, of meaningful existence, confidence, self-assurance and responsibility, not only towards himself and his family, but also towards the larger society. These are the characteristics that typically accompany those features favourable for sociocultural development, improvement of living standard, education, moral codes, hygiene, health and nutrition. Given the necessary abilities, motivation and favourable conditions, individuals can achieve for themselves status and prestige in the community.

Two basic conditions of development of the full person as outlined above are thus a measure of consciousness of belonging to one or another group in which the person feels he makes a meaningful contribution and, of course, some kind of organisational structure within which such participation takes place.

SOCIOCULTURAL AND PSYCHOLOGICAL ASPECTS OF NUTRITION

The interlinked main social causes of malnutrition are poverty, ignorance, disrupted family life, overpopulation, and disease—the most common nutritional diseases being protein calorie malnutrition (the interaction of kwashiorkor and gastro-enteritis), pellagra, and marasmus.

The economic aspects of poverty will be dealt with in more detail in the next section. They concern the availability of funds to acquire food and related needs. But there is a social side to poverty which has a strong association with these and causes ignorance and resistance to learning.

Ignorance about proper hygiene and nutrition is a function of poverty. Ignorance is often exacerbated by social customs that resist the acceptance of new knowledge and of correct eating habits. Superstitions, taboos and traditional cultural beliefs regarding causes and consequences of disease cause malnutrition and obstruct educational programmes.⁵

Resistance to new knowledge and new ways of life is found especially among deprived peoples living in poor socio-economic conditions. Poverty produces certain socio-psychological conditions—a mentality of poverty—that results from substandard living conditions and perpetuates them.

The poor develop a feeling of powerlessness and of helplessness in the face of environmental constraints. 'The selfimage of powerlessness may have the longer-run effect of snuffing out incentives to try to improve living standards." Individual initiative is further dampened by the poverty culture outlook which emphasises fate as a controller of human destiny. These characteristics are accompanied by low moral standards and lack of a sense of responsibility.

The third cause, disrupted home life, is a very serious problem of wide scope in South Africa. Because of the patterns of economic development and political policy in South Africa, the home life of millions of Blacks in South Africa is broken or disrupted. This situation contributes to the 'mentality' and 'culture' of poverty described, and promotes maladjustment. Malnutrition becomes rife under such conditions. In a most moving account of socio-economic conditions in the Ciskei, Dr Trudy Thomas' attributes malnutrition in the rural areas to poverty and ignorance, but especially to the fragmentation of family life caused by migrant labour. 'It (malnutrition) is an expression of childhood neglect and maltreatment which takes this form because it occurs in a poverty economy.' The determinants of childhood diseases like marasmus and kwashiorkor are the direct result of the lack of decent home and family influences.

A survey by Dr Thomas showed clearly how malnutrition is caused by adverse socio-economic conditions and cannot be eradicated while these conditions, largely due to the migrant labour system, remain as they are. The survey reveals the close ties between malnutrition and socio-economic conditions: 60% of malnourished children are illegitimate; 80% of the well-nourished children are legitimate; 95% of the well-nourished children are being cared for by their mothers; only 40% of malnourished children are in the care of their own mothers, of whom many are sick, defective or epileptic.⁸

The traditional extended Black family that takes proper care of every child in the absence of parents does not exist any more. The fabled extended family now usually consists of one old woman, in a hut on a hill, too decrepit to work, who is forced to carry on the back-breaking struggle of caring for small children. Children should not be returned to such an environment after treatment. They will again be neglected, malnourished or maltreated, and often die.

Malnutrition caused by broken homes can only be brought under control when families can live together—father, mother and children—within travelling distance of their places of work, for which they receive living wages'."

DEVELOPMENT, NUTRITION AND RACE RELATIONS

Some time ago, Dr Quass described the problem of malnutrition as a facet of the race problem in South Africa, and he claimed that these were the two greatest problems in South Africa.

A study of race relations in South Africa is largely a study of social stratification, i.e. a study of the division of society into layers or groups arranged in some kind of rank order from low to high. When analysing the various racial groups in South Africa, we find that the racial groups can be ranked in terms of certain criteria in the economic, political and sociocultural dimensions. The brief review which follows demonstrates quite clearly that the Coloureds, Asians and Blacks fall squarely into the less developed groups. They are, comparatively speaking, poor, powerless and despised.

Statistics highlight the economic inequality of the racial groups. According to a national survey by Market Reseach Africa of 12 000 families, the claimed average household income per month in 1970 was R398 for Whites, R156 for Indians, R94 for Coloured people, and R36 for Blacks. The apportionment of this claimed household income (excluding income in kind) in 1970 was: Whites 72,6%, Coloured people 5,8%, Indians 2,5% and Blacks 19,1%."

It has been estimated that the average per capita income of Whites is over 13 times higher than the average income of Blacks. An article in the Financial Mail, 26 May 1971, showed that in manufacturing the White/Black wage ratio had increased from 5,1 in May 1966 to 5,7 in June 1970. Similarly 'the ratio between average White and Black incomes in the mining industry had widened from 9:1 in 1911 to 11:1 in 1941 to 18:1 in 1971'. Figures released by the Department of Statistics in May 1972 show the great discrepancies in monthly wages

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(actual average earnings) paid in the manufacturing and construction industries.⁴⁴

| | Manufacturing | Construction |
|-----------|---------------|--------------|
| Whites | R352 | R369 |
| Asians | | 161 |
| Coloureds | | 127 |
| Blacks | 60 | 60 |

Significant improvements were made in Blacks' wages during 1973, but the gap remains substantial.

According to the latest Agricultural Census (1963 - 4) the average cash wage of White farm labourers was R1 258 per annum, R155 for Coloured labourers in the Cape Province, R193 for Indian farm labourers in Natal, and R83 for Black—ratio of White to Black cash wages on farms is 15 to 1, of White to Coloured 8 to 1, and White to Indian in Natal 9 to 1.15

Three sets of forces perpetuate the wide disparity between skilled and unskilled wage rates and thus perpetuate racial inequality:

- Legislative and customary hindrances to vertical mobility of Black workers.
- Lower-paid jobs occupied by Blacks and Coloureds because of inadequate access to education and industrial training.
- Insecurity of job tenure for unskilled workers due to high rate of natural increase.

The extent of discrimination and inequality in the provision of education for the different race groups has been comprehensively documented in the report of the Education Commission of SPROCAS. A major disparity appears from the fact that the State spends about fifteen times as much on each White child in school as it does on each Black child. In 1968 the per capita expenditure on Black pupils was about R14,48 per annum, while the comparable figure for Whites was R288. By 1972 the expenditure on Black education had risen to R32 per child per annum. Education for Whites is free and compulsory to the age of sixteen, whereas it is not for the other race groups.

Successive official commissions composed of experienced, practical educators and administrative officials (Wilks Commission on the Indians, Eiselen Commission on Native Education and the Botha Commission on the Coloured people) have since 1946 recommended the introduction of compulsory education for Black children. Just as the country possesses sufficient food for all race groups, it also possesses sufficient financial resources to implement these recommendations.

The distribution of food supplies follows the same racial lines as income, health, education, etc. The low socio-economic groups have less access to foods than those in better circumstances. Average food supply figures per capita do not apply to the various racial groups, but merely indicate what would be available per head if the distribution were uniform. 'It is obvious that these "average" food figures have a limited bearing on fact in practice, since two main standards of nutritional "economy" exist

in South Africa—that of the White and that of the Non-White sections of the population.¹⁸ There is no appreciable over-all shortage of calories or protein in the country as a whole. It is not production that is lagging, but distribution that is unequal.

The incidence of malnutrition is difficult to gauge, but the infant mortality rates indicate its devastating effects among the deprived groups. In 1967, the last year that kwashiorkor was notifiable, the occurrence proved its strong association with race and socio-economic status. Among Whites there were 7 cases, Asians 12, Coloured people 1 046 and Blacks 9 765. Other figures which show clear racial associations are those for TB, which were in 1970: Whites 824, Asians 957, Coloured people 6 608 and Blacks 55 398.

The effects of the large measure of inequality among the various races are not found only among the deprived, but also among the affluent: 'We have in our country a White population consisting of town-dwellers in whom are found all the ills characteristic of affluent societies. These ills include, among others, degenerative arterial disease, diabetes, obesity and tooth decay, all of which are partly or wholly due to dietary causes and can therefore be included under the term malnutrition. The incidence of these conditions is extremely high if minor degrees are included . . . There is thus in our White population much evidence of nutritional disorder arising from overindulgence and faulty food selection'. 20

The development of these relatively deprived population groups would be concerned with the upward movement in the respective dimensions suggested earlier: the acquisition of greater wealth, economic and political power and social recognition and prestige. Upward movement takes place along certain channels or ladders but is often restricted by all kinds of obstacles, some of which are functional while others are arbitrary. Examples of functional obstacles would be educational requirements for appointment to certain positions. Such obstacles serve certain functions, such as motivating the candidate to overcome them by achieving the required level of education, and of assuring that the post be filled by a suitably qualified person. Cther obstacles are arbitrary from the viewpoint of society and especially that of the deprived. Examples are discrimination against members of society either in the field of employment (economics), of political rights or of social recognition, merely on the basis of certain ascribed factors such as race or skin colour.

Because malnutrition is a part of poverty, of ignorance and of the maladiustment of the deprived lower groups, its eradication must be seen as part of the total development of these groups. A study of malnutrition must take into account the low status of these people and the barriers that prevent them from improving their position. The improvement of nutrition will therefore be concerned with efforts to improve the position of these people on the development scale and the removal of arbitrary barriers to upward mobility. The improvement of nutrition is thus largely a task of improvement of the position of certain race groups and the improvement of race relations in South Africa.

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IDENTIFICATION AND SOLUTION

Efforts to eradicate malnutrition or to improve the nutritional status of the population should be preceded by serious efforts to identify the real problems facing us. In order to arrive at any satisfactory solution it seems to me we have to meet three requirements which are of special importance in our present situation in South Africa: we have to face the problems squarely, analyse them objectively, and tackle them courageously.

While many individuals, doctors and scholars and some smaller groups, have devoted themselves wholeheartedly to the improvement of nutrition, it is quite obvious that as a society and as a government, South Africa has failed to face the issue squarely. There is lack of public consciousness of the problem and insufficient government effort to remove the circumstances responsible for malnutrition.

The lack of public consciousness is largely due to the lack of contact between White and Black communities. White tourists who drive through the Transkei observe smiling faces of Black children along the road and know nothing of the horrible suffering described by mission doctors quoted earlier in this paper. Whites are thus not directly and physically exposed to the misery of poor people, either in cities or homelands, and therefore lack concern for these people.

Also on the part of the poor there is a lack of concern, of intelligent grasp, of concerted action. The culture of poverty does not cultivate responsible citizens, and responsible leaders seldom emerge from such desperate peoples.

But then there are factors that inhibit the public expression of concern about the lot of deprived and hungry people. I said earlier that malnutrition is part of the race relations problem in South Africa, which makes malnutrition political dynamite. Concern with malnutrition often implies concern with politics.²¹

Another belief has recently been encouraged by conservatives, and that is that politics (and that implies race relations) is the specialised field of the professional politician. According to these people the ordinary citizen should not express himself on political issues but should leave these matters to the more able experts, such as members of parliament and senior government officials. This approach to politics is only valid in totalitarian and authoritarian societies and to encourage it in South Africa is to discourage democratic grass-roots political participation. It is one of the major reasons why the South African public has failed to face squarely the problem of malnutrition.

The above discussions suggest the extent to which we are emotionally involved in the problem of malnutrition. Because race relations have become a major political issue dividing people in terms of ideological commitment and group interest, most people in some or other way identify themselves with partisan groups—either privileged or deprived.

These ideological orientations not only influence, but often determine the way we observe, collect and interpret facts concerning race relations and malnutrition. Liberals and conservatives confront each other with opposing interpretations of events, of states of nutrition, of causes of poverty and of malnutrition. Newspaper reports often reflect these futile controversies which are not basically concerned with nutrition, but the defence of party policy or some other political standpoint. Because of our emotional involvement, we have failed to develop a clear objective picture of the problem in wide perspective.

In order to come to some solution we have to tackle the problem courageously. This we have failed to do for many reasons, partly owing to the fact that we have failed to face the problem and analyse it objectively. But even when we have done so, the hands of the government are often tied because of the vested interest of the voters who represent the privileged groups.

Having noted the obstacles that inhibit action, I now turn to the requirements for a proper programme for the improvement of nutritional status of the population.

Firstly, I think we have to admit frankly the short-comings and neglect of the past and present. In South Africa we have developed such a repugnance for the admission of error for fear that it may encourage feelings of guilt or shame and that such feelings will undermine the morale of an embattled nation, that we stubbornly refuse to acknowledge frankly even the most brutal injustices in our society. Too often a few lonely courageous voices are attacked so vehemently that they receive no public support. How can we expect to set forth on the right track unless we clearly state what was wrong in the past?

Secondly, we should state explicitly our concern for the development of the full person. We should be fully aware that malnutrition is a social problem which cannot be solved without improving the total position of the person in the social structure and making his life more meaningful.

Thirdly, we must ensure the involvement of all groups concerned in the planning and execution of community development programmes. Numerous programmes, like Operation Head Start in the USA, have found that programmes initiated and executed by representatives from the privileged group, without the active involvement of members of the deprived groups, are bound to fail or to be only marginally successful. Inclusion of deprived groups implies inclusion of all race groups.

We should also acknowledge the valuable contributions that can be made by outsiders, i.e. detached observers who can look at the problem from a distance. Too often we despise foreigners or aliens whom we regard as incompetent to contribute towards our insights. We only have to look at the valuable contribution made by Myrdal to the understanding of the race problem in the USA to realise how much an outsider can contribute.

Fourthly, we must state explicitly the steps required to improve the situation. And this is perhaps one of our

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greatest obstacles because of our fear to express opinions on the political situation.

THE NATURE OF REFORM: PETTY OR FUNDAMENTAL

If we want to bring about improvements, we need some kind of reform. What kind and measure of reform? In my 1967 article entitled 'Nutrition problems and social reform in South Africa', I distinguished between petty and fundamental reform. I argued that people concerned with nutritional reform in South Africa were mainly concerned with petty reform which gives temporary relief, but does not directly alter the social structure.²²

The South African Government is making a major contribution to combat nutritional deficiencies, especially among the Blacks. Government measures include the following: food subsidisation, health and welfare services, development of agriculture, milk powder distribution schemes, research in food technology and deficiency diseases, nutrition status surveys and education programmes. In the budget of the Department of Bantu Administration and Development for 1973/74, provision is made, for instance, for pensions and other benefits for Blacks not living in homelands amounting to R15 868 000, and to those in the homelands amounting to R19 810 700.22 All these measures by the Government are implemented within the basic framework of the White political system. The legitimacy of the framework and the basic assumptions underlying it are rarely questioned.

Having concerned myself with the study of race relations and stratification over the past six years, since writing the above article, I think people concerned with nutrition must ask themselves whether justice can be done to the development of the full person by the measures of reform with which we are at present concerned.

If not relief supplies but employment is the permanent answer to poverty and lack of food, should we not concern ourselves more directly with the promotion of employment opportunities? And if there are arbitrary barriers to employment in either rural or urban areas, is it not our responsibility to work for the removal of these barriers? And if these barriers are put up by politicians, is it proper for us to resign ourselves because we, as ordinary citizens, are not supposed to intrude into the 'specialised domain' of the professional politician?

If we acknowledge the importance of self-worth, confidence and a sense of belonging in the motivation of people to learn, to improve their living standard and their state of nutrition, can we refrain from expressing ourselves in favour of living conditions that will encourage these attitudes? Should we agree to restrictions on the kind of free association of workers that are essential for development of consciousness and responsible leadership?

The basis of the argument is that the shape of the social structure is largely determined by the political order, and unless some political adjustments are made no meaningful changes in the socio-economic structure can be brought about.

This same line of thought has been expressed regarding reform in the economy, more specifically in labour organisation. At the recent international conference arranged by USSALEP, Professor S. J. Terreblanche of Stellenbosch referred to the kind of change that can be brought about by pressure from Black labour unions. He stressed the point, however, that adjustments in the political order were necessary in order for these economic changes to be fully implemented.²⁴

In other words, to what extent should we accept the political framework uncritically or question it? My own view is quite evident. I believe we must become more involved in the total situation. While we must obviously restrict ourselves to our own fields of expertise, there is one field in which we as ordinary citizens are all experts and all have a very great responsibility, and that is democratic political activity. The ordinary citizen must express his opinions on both broad political principles and specific issues in politics, he must contribute towards the formation of public opinion, and he must exert pressures where necessary. For the doctor, nurse, social worker, academic, or professional to shy away from this task is to avoid a major responsibility in democratic society.

The basic assumption of my emphasis on the involvement of the ordinary citizen in the political process is, of course, the idea of a comprehensive approach and coordinated teamwork. In many countries, especially the developing countries, the co-ordinated, multidisciplinary approach is absent. There is a kind of unrealistic parochialism that prevents a clear view of the aggregate problem.*53

A brief review of race and stratification in South Africa suggests that a co-ordinated approach of professionals, academics and politicians implies a critical look at the traditional political, economic and social aspects of our race policies. This critical look has not been completely absent in South Africa, and during the past two decades there has been quite an upsurge of critical thinking and self-criticism among Whites who have questioned the basic assumptions of our policies and have expressed concern about the glaring inequalities and injustices of our society.²⁶

Discrimination on the basis of race is increasingly being condemned by leading Whites and politicians, and this new trend is also reflected in official policy where emphasis has shifted from 'race' to 'volk'." Calvinist theologians welcomed the decreasing role that race plays in our policy and the greater importance attached to education and civilisation.

This new 'volkere beleid', in contrast to the race policy, provides scope for the fundamental reform required in South Africa, and it also provides a challenge to the ordinary citizens of the country to make their respective contributions towards meaningful reform in South Africa.

South African professionals, including doctors, too often tend to shy away from political issues. Often they are quite ambivalent, having cosmopolitan views because of their education and international contacts, while at the same time identifying with the privileged establishment with vested interests in maintaining the status quo.³⁰ For

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that reason I do not find it inappropriate to emphasise the importance of involvement.

CONDITIONS OF INVOLVEMENT

Having made a plea for involvement in the basic political issues underlying development and nutrition, it is imperative that I sound a serious word of caution against excessive emotional involvement.

We must guard against sentimentality, especially in race relations and stratification. Conventional sentimentality ignores evidence which challenges the status quo and unconventional sentimentality assumes that the underdog is always right and those in authority always wrong. Unconventional sentimentalists often approach a sociological problem in terms of moral blame and approbation and in their indignation search for culprits in the establishment of the oppressors, as they view them.

In South Africa, journalists, academics and clergy (aptly referred to as ideological elites) too often reflect the polarised views of people unable to make objective assessments.30

A maximum measure of objectivity can be achieved by guarding against excessive emotional involvement; avoiding attachment to partisan groups such as political parties which require one's first loyalty, and keeping an open

As citizens we are all in a sense politicians, or even moralists and reformers. We often find it difficult not to commit ourselves to some system of values. But let us guard against what the late Professor Irving called 'dropping to the common levels'. By identification with the masses we may forfeit our special purpose as intellectual leaders.

May I close with Irving's words: 'In the nature of ideological tension polarisation is inevitable. By the same logic this process of ideological polarisation must become subject to scientific inspection. This is a form of being in the battle and not above it but we are in it on our own terms as intellectuals and not as ideologists.'

REFERENCES

Berg, A. D. (1968): J. Trop. Pediat., 14, 117.
Evans, D. E., Moodie, A. D. and Hansen, J. D. L. (1971): S. Afr.
Med. J., 45, 1413.
Biesheuvel, S. (1967): Paper presented at Symposium on Drought
and Development held by the Association of Scientific Societies of
Rhodesia at the first Rhodesian Science Congress, Bulawayo, 16-20
May 1967.
Van der Merwe, H. W. (1972): In The Role of the Church in
Socio-Economic Development in Southern Africa. (Reprint No. 12,
Centre for Intergroup Studies), p. 106. Umpumulo, Natal: Missiological Institute. cal Institute

cal Institute.

Galli, E. (1970): S. Afr. Nursing Journal, 7, 10.

McGuire, J. W. and Pichler, J. A. (1969): Inequality: The Poor and the Rich in America, p. 80. Belmont, Calif.: Wadsworth.

Thomas, Trudi (1973): Their Doctor Speaks: Aspects of African Social Life in a part of the Ciskei, p. 8. Kenilworth, Cape: Mary Whaeldon.

- Thomas, Trudi (1973): Their Doctor Speaks: Aspects of African Social Life in a part of the Cisket, p. 8. Kenilworth, Cape: Mary Wheeldon.
 Ibid., p. 11.
 Ibid., p. 17.
 Ibid., p. 10.
 Horrell, M. (1973): South Africa: Basic Facts and Figures, p. 47. Johannesburg: South African Institute of Race Relations.
 Randall, P., ed. (1971) Towards Social Change. Report of the Sprocas Social Commission, p. 14. Johannesburg: Spro-cas.
 Idem (1972): Power, Privilege and Poverty. Report of the Spro-cas Economics Commission, pp 20 21. Johannesburg: Spro-cas.
 Horrell, M. (1973): Op. cu. 11., pp. 51 52.
 Randall, P., ed. (1972): Op. cir. 12., p. 22.
 Idem (1971): Education Beyond Apartheid: Report of the Spro-cas Education Commission. Johannesburg: Spro-cas.
 Ibid., p. 24.
 Quass, F. W. (1960): Annual Proceedings of Associated Scientific and Techn.cal Societies of South Africa, p. 47.
 Horrell, M. (1973): Op cir. 13. p. 87.
 Neser, M. I. (1965): S. Afr. Med. J., 39, 1159.
 Van der Merwe, H. W. (1967): Social Science, 42, 223.
 Idem (1967): Ibid., 42, 226.
 Private correspondence from the Secretary, 5 March 1973.
 "Die Burger', 7 August 1973.
 Berg, A. D. (1968): J. Trop. Pediat., 14, 122.
 Van der Merwe, H. W. (1972): In The Role of the Church in Socio-Economic Development in Southern Africa. (Reprint No. 12, Centre for Intergroup Stud.es), pp. 113 114. Umpumulo, Natal: Missiological Institute.
 Van der Merwe, H. W. and Kivedo, B. D. (1973): "Coloured-White contacts and attitudes', p. 8. Paper delivered at Fourth Congress of

logical Institute.

27. Van der Merwe, H. W. and Kivedo, B. D. (1973): 'Coloured-White contacts and attitudes', p. 8. Paper delivered at Fourth Congress of Sociologists from Southern Africa, Roma, Lesotho, July 1973.

28. 'Woord en Daad', May 1972.

29. Van der Merwe, H. W. and Buitendag, J. J. (1973): In ASSA, Sociology of Southern Africa (Reprint No. 13, Centre for Intergroup Stud.es), p. 207. Durban: University of Natal.

30. Ibid., p. 209.