CHAPTER 4

Need-potency relations

4.1 THE AIM OF THIS CHAPTER

So far we have worked with potency functions. Economic potency can be expressed in terms of income. The income curve in itself does not reveal the problem of economic discrepancies, however, because it only represents one of the two decisive variables, the other being need. Affluence and poverty, economic potency and economic impotence are indicated by the respective differences between need and income.

Normally economic theory does not work with the concept of need but with the concept of demand. These two are not the same. The most desperate need will not be translated into market demand unless need is matched with purchasing power. Purchasing power is a function of income, not of need. Because the higher income groups have most of the purchasing power, they are able to satisfy even needs which are more apparent than real. Of course, affluent people also have objective needs, but they are largely satisfied. In contrast, the objective needs of poverty-stricken people remain largely unfulfilled.
Because of the operation of the market mechanism, a skew demand has repercussions for supply as well. Production is geared not to need but to market demand. In a situation of severe income discrepancies, therefore, production gravitates towards the luxuries of those who possess the money rather than to the essentials of those who have the need.

Our next task is, therefore, to devise a model which is capable of depicting the relation between need and income as an indicator of potency. After a description of the general model we shall try to apply it to the South African case. Unfortunately empirical evidence is more difficult to find here than in the cases of space-potency and population-potency relationships and we have to rely on conjecture to a greater extent than we would wish to.

4.2 THE NEED-POTENCY MODEL EXPLAINED

Theoretically there are three types of need: basic essentials, social expectations and personal wishes. Only basic essentials can be measured with some accuracy. A formula is set up which includes all expenses that a normal family of given size at a particular time and in a particular location has to incur to remain in good health, physically, psychologically and socially: a balanced ration, transport costs, rent, simple clothing, tax, school fees, etc. No luxuries are allowed and it is assumed that the family budgets and purchases judiciously under all circumstances. Some researchers feel that this "poverty datum line" is unrealistic because there are always unforeseen expenses such as funerals, understandable cravings for a little indulgence here and there and ignorance concerning family budgeting and purchases. So they add a certain percentage to reach the "effective minimum level".
The terminology and methodology differ between researchers. J F Potgieter of the Institute of Planning Research at the University of Port Elizabeth calls the lower entity 'Household Subsistence Level' (HSL) and the higher entity 'Household Effective Level' (HEL). When rent and transport is not taken into consideration the HSL becomes the 'Primary Household Subsistence Level' (PHSL) (Potgieter 1980). PA Nel of the Bureau of Market Research at Unisa called the lower entity 'Minimum Subsistence Level' (MSL) and the higher one 'Humane Standard of Living' (HSL), but more recently the Bureau used the terms 'Minimum Living Level' (MLL) and 'Supplemented Living Level' (SLL). (Loubser 1984: 1). For the early debate in South Africa see Ellison et al. 1975.

Let us assume that the 'basic essentials' need curve has the following shape (figure 1):

![Hypothetical 'basic essentials' need curve](image-url)
The hypothetical need curve has the following characteristics:

(a) Objective need is higher in the centre than in the periphery. There are many reasons for this: transport costs, housing, food, etc. are all more expensive in the urban setting than in the rural context.

(b) As it approaches the centre the need curve flattens out. The main reason for this assumption is the law of declining marginal utility which will be discussed later.

Basic essentials to survive and remain healthy are not the only type of need. The second type is social expectations. A person occupying a certain status and playing a certain role in society is expected to adhere to a particular life-style and expenditure pattern. A managing director cannot come to his office in a torn overall nor can he meet his partner in a street corner café arriving in a battered 'beetle'. He will lose the contract. Social expectations differ enormously from culture to culture, from social class to social class and from group to group. Nevertheless, it should not be entirely impossible to find a formula by which social expectations can be measured statistically.

Social expectations are normally called 'standard of living'. The latter is not what people actually spend but what they are supposed to spend if they fulfilled social expectations. One indication of social expectations is average spending within a social group or section of the population. However, social expectations are normally much higher than average spending. The reason for this phenomenon is that the 'reference group' or 'significant others' are normally not the group's own income category, nor those below, but the income category just above it. The reference group for urban Blacks, for instance, is the group of lower or intermediate class Whites (Broom 1979:250).
While basic essentials have become an established area of social research and social expectations are at least recognised by sociology as an important variable, *personal wishes* have not attracted much attention from social sciences. What is more, in economic theory it is usually explicitly denied that personal wishes can be measured. The assumption that wishes and wants are unlimited and only kept in check by the scarcity of resources is, in most cases, taken as axiomatic. I believe that it is quite wrong.

Fact is, that even the richest of millionaires have circumscribed and quantifiable consumption patterns. They do not spend all the income they earn but only a tiny fraction of it. The rest is invested. The classical explanation for saving, viz. that people defer consumption now with the hope of being able to consume more in the future, is not very convincing in these cases because there are no material wishes left which can be satisfied at any given time.

Reasons for limited consumption patterns in cases where resources are not the limiting factor are not difficult to find. Man is subject to the limits of time, space and energy. Wishes which could theoretically all be fulfilled have to compete for a place in this circumscribed area.

Economic theory itself contradicts the assumption of unlimited wants with its law of diminishing marginal utility. The tenth luxury car is a bother rather than a boon. Sooner or later saturation must be reached. On the basis of this evidence it is inconceivable how the myth has survived for such a long time and prevented essential research on the upper limits of need (which include basic essentials, social expectations and personal wishes) and the factors which influence it.

The category of personal wishes includes all reasonable wants of all family members - with the proviso that it is the wishers themselves who determine what is reasonable. By the same token it is the people directly concerned who have
to determine which consumption patterns are socially required. If these two categories are defined in this way it is possible to measure total need (including basic essentials, social expectations and personal wishes) statistically for certain groups in particular situations and at given times. One only needs to determine the income bracket where people begin to save and invest in considerable proportions and not as a means to satisfy deferred needs and wants later, or as a safety precaution for the future.

In the absence of detailed studies concerning social expectations and personal wishes I have to work with a hypothesis. It says that on the grounds of the law of diminishing marginal utility both the curve of social expectations and the curve of personal wishes follow the same pattern as that of basic essentials, only added on to the latter. We thus obtain the following picture (figure 2):

We are now able to determine the nature of the discrepancy between income and need, i.e. affluence and poverty, by superimposing the three need curves onto the income curve as established in the previous chapter (figure 3):

On the basis of this hypothetical model we are able to arrive at four precise definitions:

(a) Absolute poverty is a situation in which income does not meet the level of basic essentials, thus below A on the graph.

(b) Relative deprivation is a situation in which income meets basic essentials but not the level of social expectations, thus between A and B on the graph.

(c) Relative privilege is a situation in which income meets basic essentials and social expectations but not all personal wishes, thus between B and C on the graph.
Figure 2
THREE TYPES OF NEED

Figure 3
Determination of affluence and poverty
(d) *Absolute affluence* is a situation in which income covers basic essentials, social expectations and all reasonable personal wishes (reasonable in the person's own judgment) and the surplus can be saved and invested, thus beyond C on the graph.

4.3 THE SOUTH AFRICAN SITUATION

In the South African case, as in many other countries, the need curve is not convex, as figure 1 suggests, but concave. That means, it rises faster as we approach the centre. The reason for this phenomenon lies in progressive taxation. If we excluded income tax from the concept of basic essentials, we would get a convex curve. The following table gives an indication of the quantities involved (South Africa 1980a):

<table>
<thead>
<tr>
<th>BRUTO INCOME (RAND)</th>
<th>INCOME TAX RAND</th>
<th>TAX AS PERCENTAGE BRUTO INCOME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 000</td>
<td>78</td>
<td>7.8</td>
</tr>
<tr>
<td>10 000</td>
<td>996</td>
<td>10</td>
</tr>
<tr>
<td>50 000</td>
<td>17 087</td>
<td>34</td>
</tr>
<tr>
<td>100 000</td>
<td>41 787</td>
<td>42</td>
</tr>
</tbody>
</table>

Graphically the situation can be presented as in figure 4.

NOTES

1. While income tax pushes up the basic essentials curve towards the centre, general sales tax has the opposite effect. I was not able to gather empirical data on the precise effect of general sales tax so far.

   (A further complication is the exemption of basic food stuffs from general sales tax, but this has not been operative in 1980 which is the year on which most figures in this study are based.)
2. On the other side of the spectrum, income from investment is deductable from taxable income at certain rates depending on total income of the earner and up to a minimum of 33.3% in the highest income bracket. This measure, which is doubtless aimed at the encouragement of capital formation, benefits the higher income groups. In the same vein capital gains made on the stock exchange are not taxable.
Another factor to be taken into consideration is that while almost 30% of the White population was gainfully employed in 1980, less than 16% of the Black population was (South Africa 1982b: 1.18 and 7.6). The high rate of dependency obviously raises the basic essentials line amongst the poorer sections of the population.

The need curve displays "jumps" similar to those of the income curve which we found in the last chapter. These are due to discontinuities between the social environments of the respective groups.

Expenditure on housing may serve as an example. From the real cost of a Black homestead in rural Black areas and on White farms (for which I have found no estimates so far) to the average cost of housing in Black townships we can expect a considerable jump. Here rents have ranged from R13 (Durban) to R18 (Cape Town, Johannesburg) and R24 (Pretoria, including lighting) for Blacks and up to R32 (Durban) for Coloureds in 1980 (Potgieter 1980). In the same year the cheaper type of flats in a Pretoria White suburb cost about R120 - R150 p.m. Houses cost between R40 000 and R60 000, the cheapest probably going at R30 000. In the latter case this would work out to R244 p.m. at the building societies' bond interest rate of 9.75% during 1980. (State housing subsidy on a R25 000 bond repayment was, however, about R72 p.m. in that year).

BASIC ESSENTIALS

The basic essentials curve can be located at given points in the spectrum. Here are indications for population groups in three different categories:

1. According to Potgieter's figures (1980) the 'household subsistence level' oscillated around R180 p.m. or R2 160 p.a. for Black and Coloured households of six in the cosmopolitan areas in 1980 depending on the urban centre concerned. Assuming 1.5 earners per household this would imply an income of R1440 per earner p.a. According to the same source the 'household effective level' of these two groups oscillated around R270 p.m. or R3 240 p.a. which amounts to R2 160 per earner p.a.
2. For a rough calculation of the basic essentials curve of other population groups Potgieter's 'primary household level' (which excludes rent and transport) can be taken as a point of departure. It amounted to about R153 p.m. (R1 836 p.a.) for Coloureds in 1980. Add tax, accommodation expenses and transport needs and give some allowance for cheaper food-stuffs in rural areas.

A rough estimate would then bring the household subsistence level of Black peasants to R2 000 p.a. or R1 330 per earner (1,5 earners/household). Basing his figures on research done by the Bureau of Market Research at Unisa, McGrath (1983:316) reports that the 'minimum living level' was about R1 134 p.a. in Durban and about R880 in White rural areas and Black areas in 1975. If one took this ratio as a basis and the figure of R2 160 p.a. for metropolitan areas in 1980, then the MLL for Blacks in White rural, and Black areas would amount to R1 676 p.a. All these are rough indications which call for more precise investigations, but they suffice for our purposes.

3. Let us take the example of a White family with one earner earning R30 000 in Pretoria in 1980. The Coloured minimum effective level was R3 267 p.a. (Potgieter 1980). To this the following involuntary expenditures have to be added. Rent (value of the house R40 000 at 9,75% bond interest rate = R3 900, minus housing subsidy of R864 = about R3 000), income tax (R5 300), bus transport to work and school (R300), obligatory social securities (R2 000). This would give us a White minimum effective level in that income bracket and in that city of about R14 000 p.a. This estimate is based on a real case study I conducted. Note how the figure rises dramatically with rising incomes:
How many people in South Africa live in absolute poverty? Here are the results of various studies:

1. Nel (1982:23-25) reports for Blacks in Johannesburg that 28,6% of all households fell below the Minimum Living Level and 41,4% below the Supplemented Living Level. Households with female heads were particularly affected (44,4% below MLL and 57% below SLL); so were bigger families (50% of households with 8 and more members below MLL and 71,2% below SLL); so were those with low educational standards (49,4% of those without schooling below MLL).

2. McGrath (1983:316f, 348) calculates that approximately 30% of Black households in metropolitan areas, 62% of Black households in Black areas and 74% of Black households in White rural areas were in poverty in 1975. The data of
Black areas include incomes in urban areas outside the metropolitan centres, otherwise poverty would be higher there as well. Excluding commuter incomes, 35% of incomes in Black areas are generated by migrant labour.

3. Simkins (1984:12) finds that in the 'homelands' 81% of the households received an income below the Minimum Living Level in 1980. In 1960 the figure was 99% and in 1970 98%. The improvement may be mainly due to (a) incomes of the growing 'Black State' bureaucracy and (b) incomes of Blacks in urban areas which were added to the 'Black States'.

SOCIAL EXPECTATIONS

The need curve for social expectations is not easy to determine. One way would be to work out average consumption expenditure for different groups in different situations and add a certain percentage to allow for the fact that people are oriented towards a reference group with higher expenditure patterns than their own. Since there is hardly any saving until we come to the income elite, average incomes after tax can be used for average consumption expenditure if we added up to 50% to that on the highest point of discrepancy between income and social expectations with declining figures both ways one could construct a hypothetical curve for social expectations. Some empirical evidence would be needed, however, to be able to determine the percentage to be added. Here is a preliminary suggestion:

In 1983 Möller and colleagues (1984) analysed a sample of (a) destitute poor, (b) typical low income earners and (c) relatively well-off Blacks in three kinds of situations: (i) rural areas, (ii) peri-urban shacks and (iii) urban townships.

The following income margins, expressed in per capita household income per month, were used. To make the figures comparable with our own we have added a corresponding figure in brackets for income per earner per year at 1980 prices, for which we assume 1,5 earners for an
average family of six and a consumer price index of 187.8 for 1980 and 271.4 for 1983.

| (i) Destitute: | rural: up to R 15 (R 498) | shack: up to R 25 (R 830) | urban: up to R 40 (R1 328) |
| (ii) Average poor: | rural: R 16 - 30 (R 530 - 996) | shack: R 26 - 50 (R 860 - 1 660) | urban: R 41 - 80 (R1 360 - 2 656) |
| (iii) Better off: | rural: R 61 plus (R2 025 +) | shack: R 101 plus (R3 350 +) | urban: R 161 plus (R5 345 +) |

On this basis we can make the following observations:

(a) Among the destitute and the typical poor their own dissatisfaction with life was consistently higher than their assessment of the dissatisfaction of all Blacks - most markedly in the case of destitute shack dwellers: 70% vs 37% (p 8). This is a clear indication of absolute poverty or relative deprivation. Among the better-off Blacks the relation was reversed in the case of rural and urban Blacks - an indication of relative privilege. The social expectations curve may therefore, lie in the vicinity of R 1 500 - R 1 800 for rural and R 4 000 - R 4 500 for urban Black earners. Better-off shack-dwellers had a higher percentage for own dissatisfaction than for general Black dissatisfaction - though much reduced. So they perceived themselves to be relatively deprived. Social expectations may lie, therefore, in the vicinity of R 4 000 - R 4 500 as in the case of urban Blacks. With a continuous series of income brackets the figure could be determined more precisely.

(b) There was a consistent drop in dissatisfaction with higher incomes (p 8)

urban: 43% (destitute) 11% (well-off)
shacks: 70% (destitute) 29% (well-off)
rural: 41% (destitute) 20% (well-off).

(c) However, typical low-income earners were found to have an equal or even higher level of discontent than the destitute. This corroborates our theory that the need curve rises faster than, or as fast as, the potency curve at the far end of the periphery (p 11f).

(d) Peri-urban shack-dwellers were on the whole most discontented and of low morale and mood (p 15). Obviously they developed enough initiative to break out of the rural setting
with its cushioning community effect, yet failed to reach their goal of a full urban life.

(e) The authors were surprised to find a reasonable amount of consumer-durables even amongst the destitute (p 16). This is an obvious indication, however, that basic essentials are sacrificed for items deemed to be important in terms of social expectations or personal wishes. Typical items were: radios (75-80%), bedroom suites (85-90%) and lounge suites (52% shacks, 55% rural, 77% urban). Further items out of reach for the shack or rural Black played a role among the urban destitute: electric/gas stove/oven (43%), television (33%), telephone (20%) (pp 32-34).

TOTAL NEEDS

It is probably possible, to indicate the position of the total need curve for certain groups in certain situations, at least at the point where it intersects with the income curve. This point is reached at an income level where families begin to save and invest a considerable proportion of their incomes.

Nel (1982:121) found that in the case of Black multiple households in Johannesburg in 1980 the rate of savings is negative up to an income of R7 000 p.a. From R 7 000 to R 8 000 p.a. average savings amounted to R110 p.a. Above R 8 000 the average jumped to R 982. Further research is necessary to determine whether this in fact indicates the upper limit of 'total needs' for that population group during that time - which seems to be unlikely - or whether people save for the later satisfaction of deferred needs and social security. One also needs to find similar intersection points between income and expenditure for other groups, environments and times.

If we took the income of R 7 000 p.a. mentioned above in connection with the Johannesburg case as an indication of the total need curve for Blacks in South Africa, we could give a rough indication of how many Blacks enjoyed 'absolute affluence' as defined by us earlier. According to CSS sample estimates (South Africa 1982a:276) there were 16 700 Blacks (0,3% of all Black earners) who earned incomes above that figure. Allowing for an average of 1,5 earners per household, the figure per earner would be just above R 4 500 p.a. which would then give 52 840 Black earners (1% of all Black earners) who would qualify for this category. This is just a rough indication.
I was unable to trace comparable figures for other groups. It can be expected, however, that the intersection between income and total needs is considerably higher in the case of Whites, if only because of a substantial increase in desired housing and recreation expenditure. If we arbitrarily took the figure of R 20 000 p.a. per family there would be 117 500 earners (5.15% of all White earners) who qualified. Assuming 1.9 earners per household we would get an income of R 10 500 p.a. per earner. Then 585 640 earners (25.7% of all White earners) qualified (calculated on the basis of South Africa 1982a:276ff).

Indications are, then, that in the case of urban Blacks the different need levels may have been something like the following in 1980:

<table>
<thead>
<tr>
<th>Needs Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total needs</td>
<td>R7 000 p.a.</td>
</tr>
<tr>
<td>Social expectations</td>
<td>R4 500 p.a.</td>
</tr>
<tr>
<td>Basic essentials</td>
<td>R2 160 p.a.</td>
</tr>
</tbody>
</table>

4.4 SUMMARY

In this chapter we developed a model which plots available income against need. The resultant definitions of affluence and poverty are a better indication of potency distribution than income alone.
In developing the model we distinguished three types of need: basic essentials, social expectations and personal wishes. The intersections of these three need curves with the income curve divides the field into four categories: absolute poverty, relative deprivation, relative privilege and absolute affluence (4.2).

We then tried to apply the model to South African conditions. Unfortunately the figures which I was able to trace, were not very precise or consistent. Contrary to expectations the need curve has a concave rather than a convex shape. This is mainly due to progressive taxation. Indications are, furthermore, that the need curves display the same sort of 'jumps' due to racial and spatial barriers which we found in the case of the income curve (4.3).

The overall picture suggests that up to sixty percent of the total Black and Coloured populations may suffer from absolute poverty while a very small, overwhelmingly White minority enjoys absolute affluence. Apart from poverty datum line studies very little research seems to have been conducted in the whole area demarcated in this chapter and a lot needs to be done before a clear picture emerges concerning the relation between need and potency in the different population groups.
CHAPTER 5

Causes of economic potency discrepancies

5.1 THE AIM OF THIS CHAPTER

In the previous three chapters we developed models of potency distribution and tried to substantiate them empirically as far as possible within the South African context. A full understanding of the phenomenon, however, can only ensue when insight into its causes and thus its historical dynamic is gained. Moreover, it is impossible to deal creatively with an undesirable situation unless the main contributing factors are known. While we touched upon causal relationships here and there in our discussion so far, we need to investigate this area more systematically. In view of our general systems-analytical objective we have again developed a model. To discuss all aspects involved in this model, however, is quite impossible within a short chapter. For this reason we concentrate on three of the more important factors which make up the syndrome as a whole: asymmetrical interaction on the market place, the role of differential technological advance, and volition.
5.2 A MODEL OF CAUSATION (based on Nünberger 1983:10ff)

The debate in the social sciences concerning economic discrepancies is conducted within the framework of two conflicting paradigms. The liberal school of thought maintains that the cause of poverty in the periphery is backwardness and its cure is modernisation. Modernisation aims at a rise in initiative, productivity, efficiency and organisational sophistication. There is an implicit tendency towards an idealist interpretation which concentrates on consciousness factors. In contrast, the radical school maintains that poverty is the result of oppression and exploitation and that the cure is liberation. There is an implicit tendency towards materialist interpretation which concentrates on structural change.

In spite of the enmity and bitterness with which the modernisation and the liberation schools attack and ridicule each other their findings are not mutually exclusive. At this juncture of the evolution of scientific insight I believe the most pressing task to be the development of a systems-analytical model in which the different causal factors are seen in their relative contribution to a complex and integrated whole.

The modernisation school emphasises potency factors inherent in the centre and impotence factors inherent in the periphery. The liberation school emphasises the effects of an asymmetrical interaction, i.e. the interaction between a strong and a weak partner. Our model has to take all three factors into account.

The idealist school of thought emphasises the importance of consciousness and volition; the materialist school of thought emphasises the importance of structural mechanisms. Our model
has to cater for both dimensions in respect of all three the factors mentioned above.

Concerning impotence factors inherent in the periphery, structural mechanisms are often called 'vicious circles of poverty'. Correspondingly I coined the concept 'golden spirals of affluence' concerning structural mechanisms which make up potency factors in the centre in my earlier writings on the theme.

The best known example of potency factors inherent in the centre is the cumulative growth of productive capital. While in the periphery a hundred workers build a stretch of road with shovels, in the centre one man can build the same stretch of road more efficiently with a bulldozer. While the hundred workers need their income to feed their families, the man with the bulldozer may soon be able to afford a second, then four, then eight bulldozers. Productively invested capital snowballs, while manual labour does not. The same is true for technical sophistication. The vicious circle in this case consists in the following: lack of capital leads to a lack of productivity which in turn leads to a lack of capital. All proceeds are needed for consumption; no saving for capital investment takes place.

These factors of potency and impotence in the centre and in the periphery respectively have received extensive treatment in the literature of the modernisation school and we do not need to pursue them any further. What needs to be emphasised, however, is the interrelation between factors of potency in the centre and factors of impotence in the periphery. Gunnar Myrdal (1957) perceived the phenomenon of 'cumulative and circular causation' more than a quarter of a century ago but few took much notice.
The 'circular' aspect brings us to the asymmetrical interaction between centre and periphery. Here we can distinguish three aspects:

(a) The centre sucks resources out of the periphery and leaves the latter depleted.

In South Africa there was, since the early years of centre formation, a brain-drain, a capital drain, a muscle-drain. Those with the healthiest bodies, the best education, the most enterprising spirit, have moved to the cities for close on a century. The initial suction, caused both by the 'push' of declining economic opportunities in the periphery and the 'pull' of rising economic opportunities in the centre, continues today in the form of the migrant labour system. A great proportion of the work force of the Black areas is absent. Economically less active sections of the population - the children, the aged, the sick, the less educated, the conservative - remain behind and must be looked after by the peripheral economy or, rather, by their more enterprising relatives in town. The centre utilises the greatest productive asset of the periphery, viz. labour, while the cost of maintaining the population from which it is drawn, is largely carried by the periphery.

But the labour which the centre borrows temporarily from the periphery, is not allowed to develop its full potential while in the centre either. Much of it remains unskilled and receives low wages. Skills which are picked up in the centre economy cannot be utilized in the peripheral economy. The remittances of migrant labourers to the periphery barely keeps their numerous dependents alive. They do not lead to the development of productive capacities. These incomes are, moreover, largely spent on goods produced by the centre economy. The benefit of this system to the periphery in terms of the growth of economic potential is virtually nil.

(b) The dominating power of the centre leads to the dependency of the periphery on the centre.

The peripheral economy has long ceased to sustain its population - even on the level of bare subsistence. The latter depends on
the centre for its physical survival - and therefore it is dependent in most other respects as well. Dependency means that most crucial decisions are taken by outsiders. Outsiders normally look after their own interests first, even if they designate their contribution as "development aid" or claim moral credit for offering jobs to the poor. If they do have the interests of the periphery at heart, it is by grace, not by obligation.

It needs to be mentioned in this regard that the dependence of the periphery on the centre is normally mediated by a peripheral elite (cf. chapter 3, section 3.4 and 3.5). This elite has the power to take decisions for the periphery. But its power is derived from the centre - at least in part. It will therefore not normally take any decisions which are contrary to the interests of the centre.

The overwhelming dependence of the governments of the 'self-governing' and the 'independent Black States' on financial grants by the White ruled central government is well-known. Thus the 'independent Black States' received the following 'development aid' from the Republic of South Africa in 1981/82 (Benso 1982a: 103 and 1982b:66):

<table>
<thead>
<tr>
<th></th>
<th>Own sources R</th>
<th>RSA grant R</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transkei</td>
<td>172 347</td>
<td>210 156</td>
<td>1:1.2</td>
</tr>
<tr>
<td>Bophuthatswana</td>
<td>285 258</td>
<td>53 400</td>
<td>1:0.2</td>
</tr>
<tr>
<td>Venda</td>
<td>22 500</td>
<td>71 500</td>
<td>1:3.2</td>
</tr>
<tr>
<td>Ciskei</td>
<td>21 095</td>
<td>116 689</td>
<td>1:5.5</td>
</tr>
</tbody>
</table>

Note: Bophuthatswana is better off than the rest because it is in the fortunate position of having some lucrative mines on its territory which contributed 53% of its total revenue in 1980 (Benso 1982b:19).

(c) Both suction and domination by the centre lead to the deformation of the economy of the periphery. We deal with this aspect in greater detail in 5.3 and 5.4 below.
Structural mechanisms are only the one side of the coin, however, the other being volitional factors. Wherever power is generated it can be used (or abused) to strengthen the competitive position of its bearers at the expense of their competitors. In this way a further cumulative effect is created. Whether this is in fact done or not depends on 'consciousness' factors, i.e. the overall system of meaning and norms as well as the legitimation of one's pursuit of self-interest. This can have either an inhibiting or an enhancing effect on inherent structural mechanisms, and either a countervailing or reinforcing effect on structural mechanisms of interaction. We give a few indications of this dimension in 5.5 below.

The complete model of causation then looks like this (figure 1):

![Diagram of causation model](image)

**Figure 1**
Model of causation of discrepancies in economic potential between centre and periphery
Finally, it needs to be emphasised that all the above-mentioned factors must be seen in relation to historical time. These are not only 'powers of influence' but dynamic processes which combine and reinforce each other to increase the discrepancy between the potentials of the centre and the periphery respectively.

We shall now discuss two examples of structural mechanisms relevant to the South African situation and then make a few observations on 'consciousness' factors which will be picked up in greater detail in Part II.

5.3 ASYMMETRICAL MARKET INTERACTION

5.3.1 The basic model explained

The negative difference between basic essentials and income we call a poverty gap. The positive difference between all needs including personal wishes and income we call an affluence gap. The mere existence of these two gaps has a reinforcing effect on the discrepancy between rich and poor:

(a) Absolute poverty has an adverse effect on health, education, motivation, etc. Any increase in income is swallowed up by unfulfilled needs - or by accumulated debts. The absolutely poor are trapped in a situation from which only the most determined, gifted or fortunate escape.

(b) Absolute affluence not only means that all potentials of the person concerned can be fully developed and utilised but also that there is a surplus which can be profitably invested and which pushes up the income even further.
On the basis of these two mechanisms alone it can be expected that the discrepancies between centre and periphery become larger continuously unless some powerful countervailing processes can be institutionalised. Interaction between centre and periphery, however, exacerbates this phenomenon considerably. Let us see why this should be the case. We look at the need curve first:

(a) In the centre income (or economic potency) is considerably higher than objective need. This means that surpluses are produced (affluence gap).

(b) In the periphery need is considerably higher than income (or economic potency). This means that there is a shortfall of goods and services (poverty gap).

(c) The surplus produced in the centre where it is not needed cannot be transferred to the periphery where it is needed because there is no corresponding market demand in the periphery. The reason for the absence of market demand in the periphery is, as we have seen, not the absence of need but the absence of a purchasing power corresponding to that need (see chapter 4).

(d) Purchasing power is concentrated in the centre. So the surplus produced in the centre can only be sold in the centre. But for this to happen the need of the centre population must be raised. Products satisfying basic essentials become more sophisticated, luxurious, wrapped up. Social expectations are manipulated by rapidly changing fashions, new models, etc. Personal wishes are pushed up by sophisticated advertising and aggressive marketing techniques. Products are preplanned to have a short life time (planned obsolescence). The whole economy is transformed into a system geared to a high 'throughput' and great wastage.
(e) These techniques are able to raise the need level in the centre to some extent but not half as much as in the periphery. In the centre most objective needs have been satisfied and people have become immune to the constant bombardments of shrewd salesmanship.

(f) Not so in the periphery. The rich are always the reference group of the poor. Advertising and marketing spill over into the periphery where they find a deep trench of unfulfilled need, an eager longing to participate in the grand world of the cities, a fascination with every gadget that brings unheard-of miracles and prestige into the home: the transistor radio, the ice-chest, the TV-set, the car, the cola beverage, the electric stove.

(g) So great is the spell of these new products and their marketing that peripheral populations indulge in them although they cannot afford them. This means that they build up huge debts and divert their meagre income from basic essentials to prestige objects (social expectations) and personal wishes, even if that implies an imbalanced ration, hunger, a premature termination of education, unhealthy living conditions, frequent retrieval of unpaid goods by hire-purchase firms, etc. - all of which again boomerang back onto their capacity to produce or raise an income sufficiently high to satisfy their need.

Figure 2 depicts the process (for simplicity's sake we merge the three need curves into one in the ensuing discussion). The graph shows that the need level rises by a greater margin in the periphery than in the centre, viz. from A to B.
Let us look at the potency curve:

(a) Because market demand is concentrated in the centre population, production gears itself to what can be sold in the centre. Basic essentials have long been satisfied. What can be sold is luxury. Contrary to common belief the market mechanism does not force production to satisfy the unfulfilled need of the majority of the population, it concentrates instead on the whims of the elite - simply because this is where the purchasing power is concentrated.

(b) The elite is the "reference group" for the lower sections of the population. The artificial demand raised in the periphery by salesmanship and the "demonstration effect" of the elite at the expense of basic essentials is not for
products which the traditional production techniques of the periphery could satisfy but for products which only the sophisticated technology of the centre is able to provide: transistor radios, cars, etc.

(c) This means that traditional producers cannot sell their products any longer. Even the market for basic essentials such as foodstuffs, handmade sandals or mud bricks declines because money is diverted to the products coming from the centre.

Figure 3

The effect of asymmetrical interaction on the potency curve
The result is that the productive capacity of the periphery declines (viz. from C to D in figure 3). But the goods required by the artificially created demand in the periphery have to be provided by the centre. So the productive capacity of the centre increases, with "multiplier" and all (viz. from E to F).

The movements of the need curve and the income curve reinforce each other: in the periphery greater need and lower productive capacity lead to a widening of the poverty gap while in the centre a higher productive capacity without a corresponding increase in objective need widens the affluence gap (figure 4).

Figure 4
The effect of asymmetrical interaction on affluence and poverty gaps
This leads us to two further definitions:

(a) **Underdevelopment** is a situation in which production is unable to react positively to rising needs - it could even drop below its former level.

(b) **Overdevelopment** is a situation in which productive capacity outperforms objective need so that the latter has to be raised artificially by the application of "scientific" marketing techniques.

The crux of this analysis so far has been that underdevelopment in the periphery and overdevelopment in the centre are interrelated to a considerable extent.

There is a further effect: Because the periphery lacks some essential factors of production - capital, technology, sophistication, organised entrepreneurship - it is unable to produce the goods for which there is a market, both in the centre and the periphery. Yet it has to raise some income to be able to satisfy at least some of the needs - whether basic essentials or needs artificially created by salesmanship and demonstration. The only way open to raise such an income is to sell not the produce, but the factors of production it has - labour, raw materials, land - to the centre. These factors of production are in a "raw" stage - unskilled labour, unprocessed raw materials, undeveloped land - and thus fetch a low price. In return the finished products coming from the centre have had value added on by processing, even overprocessing and are, therefore, expensive. Again the periphery suffers.

In South Africa the transfer of periphery controlled land to centre owners has a long history of conquest, expropriation, purchase, etc. It continues within the White community on a significant scale. The transfer of land from
Black owners to White buyers has been curtailed since the Land Act of 1913 and the Native Land and Trust Act of 1936. Since then it only takes place in the context of Black spot removal and consolidation resettlement schemes. Mineral deposits are only significant in the case of Bophuthatswana.

The asset which the Black peripheral population has to offer on a vast scale, however, is labour - both as muscle power and potential brain power. A great proportion of the economically active population, particularly the men, are migrant labourers, quite apart from the fact that many of those with initiative have long moved to the cities on a permanent basis and are continuing to do so wherever they find an opportunity. For the flow of labour and goods in South Africa, see Nattrass 1983a: 8-13.

Figure 5 illustrates this transfer of labour to the geographical centres in the cases of Coloureds and Blacks.

Figure 5a
Black Employment in manufacturing per square mile in 1970
(Source : Rogerson 1974:20)
5.3.2 **Galtung's dependency model revisited**

If we apply these insights to the relation between a dominant and a dependent centre and their respective peripheries (Galtung's model) we obtain the following picture:
The following observations can now be made:

(a) Although there is some unfulfilled need in pC it is infinitely greater in pP - and rising with greater interaction.

(b) In as far as cP is unable to produce industrial goods for which there is a market (whether in the central or in the peripheral region) its main function is to import processed goods from cC and to export raw materials from pP. (Land and labour are of limited application in international relations but still significant). Here the "conveyor belt" theory often encountered in Neo-Marxist literature gains some validity.
(c) In as far as cP is able to produce manufactured goods such production will be geared to either of two markets:

(i) cC and pC: This can only happen on condition that it can produce cheaper or more exotic goods than cC - which again depends on the utilisation of cheap labour or resources obtained from pP.

(ii) cP and pP: In this case it will be geared to substitution of luxury goods imported from cC. Strictly speaking, only cP is able to afford these goods. But the population of pP will indulge in them at the expense of basic essentials. This production of import substitution can compete with the imported goods only if it utilises the cheaper labour and resources obtained from pP.

(d) cP will normally not be able to supply the capital, sophistication and management needed for industrial production of manufactured goods and has to obtain it from cC. cC will be willing to invest in cP only if the profit margin in cP is higher than in cC - which again can only be achieved through the utilisation of the cheaper labour and resources obtained from pP. We understand now why cP is almost by necessity a dependent offshoot of cC and has to satisfy the interest of the latter if it wants to survive.

Internationally, further mechanisms compound the problem:

(a) Because imports from cC (manufactured goods) are relatively expensive while exports to cC (raw materials) are relatively cheap for reasons discussed above, cP is soon saddled with a balance of payment problem. To cover the shortfall it will attempt to raise loans (earmarked as "development aid"). Loans have to be repaid with interest. If the underlying weakness of the peripheral system is not
overcome to a substantial degree through such loans - which is unlikely in most cases - the latter only worsen the situation.

(b) In cases where industrial development takes place in cP it takes place on the basis of capital, skills and technology borrowed or bought from cC. This needs to be repaid. If the young industry of cP is unable to outperform its competitors in cC by a substantial margin - which is unlikely in many cases - again the balance of payments problem raises its head. cP will on occasion repay its debts by raising new loans or luring new capital investments by cC into the country. The latter will again only be successful if the profit margin is higher in cP than in cC. Which means that the debt of cP snowballs.

(c) cP has only one means of meeting its debts and that is to gear the output of both cP and pP to the export market - in effect to the needs of cC and pC. To be competitive on that market it must reduce wages and payments for resources to a minimum. cP and cC gain - because they obtain a cheaper product - cP and particularly pP loses out on the deal.

(d) But that is not the only effect. pP is forced to channel its limited productive capacity away from products which would satisfy its own basic essentials (particularly food and clothing) to export products (e.g. coffee, soya beans, timber, sugar, etc.). The supply of these products decreases, with the result that prices go up - not only of protein foods but even of staple foods such as maize. The crazy situation develops that a fertile and huge country such as Brazil has a problem of malnutrition and hunger not only in the cities but even in rural areas because its agriculture has been geared to the export market.

(e) In their desperate situation cP governments often seek a way out in an inflationary policy. State debts are covered by printing money. It is also hoped that inflation will stimulate the local economy and lead to development. Whether this is the case or not - such a policy relocates financial resources in the population. Those who possess foreign values, or fixed properties such as land or factories and those who receive dynamic salaries, are safe. This is the elite - comprising both of cP and the dependent privileged "worker and civil servant aristocracy". The purchasing power of the poorer sections of the population declines rapidly. In as far as that happens it drops out of the
market. Which means that production will further concentrate on the needs and wants of the elite (cf. figure 6 in chapter 3).

5.3.3 A further note on decentralisation

There seems to be a way out. (For the following, see Fröbel 1977). Modern technological advances have greatly improved the capacity, speed and quality of transport facilities. It also led to the subdivision of the productive process into tiny segments, many of which can be simplified to such an extent that unskilled labour is able to handle them. What happens now is that a few such phases in the productive process are transferred from the centre, where labour costs are high, to the periphery where there is an abundance of unskilled, poverty-stricken labourers who are willing to work for any wage. In such a situation labour can, at starvation wage rates, still successfully compete with capital. Third World governments are often eager to open their countries for this type of "decentralisation" because they have a serious unemployment problem on hand. The same is true for centre industries which involve high health and pollution risks against which centre governments have erected a barrage of restrictive laws.

The advantage of such an arrangement to the peripheral economy is negligible. The cream of the work force - often young women in their early twenties - are utilised intensively for a few years after which they are worn out, and replaced by others in the queue. The wages are on near starvation level and barely keep the dependants alive. Capital investment is minimal and all proceeds are repatriated. Products are useless for the peripheral economy because they are components of unfinished centre products such as radios. Such plants are also very unstable. If workers strike or Governments raise taxes, firms pack up and go to another low-wage area of which there are plenty in the Third World. Meanwhile, the little infrastructural and human development generated by its presence collapses.

It is the centre economy which gains. In fact, it is able to obtain a factor of production cheaper than it would be at home. Once labour costs in the periphery rise beyond corresponding capital costs in the centre, the production phase is repatriated to the centre and labour is replaced by machines.

The upshot of these observations is that interaction between an economically weak and an economically strong partner does not balance out the respective unequal levels, but works to the advantage of the stronger partner at the expense of the weaker. Even in cases where interaction holds some advantages for the
periphery the advantages for the centre tend to be greater unless, of course, some powerful countervailing processes can be institutionalised.

The new decentralisation program of the government has not been in operation long enough to allow judgment on whether any of these insights would be applicable to the South African situation. At present concern is expressed over three issues: (a) the artificial nature of the program which is geared not so much to the utilisation of economic resources for the benefit of the less privileged areas of the country but to the enhancement of the credibility of an outdated political ideology, (b) whether the program can succeed to channel economic activity away from the metropolitan areas and boost the productiveness of peripheral areas at all and (c) whether, if it succeeds, it will not do so at a forbidding price for the economy as a whole because, highly subsidised ventures of this kind have to be paid for. (Tomlinson 1983; Smit 1983: 84-90 (the artificial character of towns in Black areas); Kok 1983; see also the study by P A Wellings on 'core-periphery relations in the SA space-economy' in the context of the Investigation into Inter-group Relations of the HSRC).

5.4 POTENCY DISCREPANCIES IN RELATION TO TECHNOLOGICAL ADVANCE

5.4.1 Structural mechanisms in general

Technology raises the productivity of labour. By doing so, it replaces labour. A dressmaker with an electric sewing machine may produce as many dresses as fifty women with needles. If market demand for dresses remains constant, forty-nine workers are made redundant, while one dressmaker receives the income formerly earned by fifty minus the cost of the machine. This simplified example shows that

(a) technology demands qualitatively more skilled, but quantitatively less labour,
(b) the income of skilled labour rises dramatically,
(c) the demand for unskilled labour drops, i.e. the machine replaces labour,
the income of unskilled labour drops dramatically.

But why can the other forty-nine dressmakers not also be supplied with machines? If that was done the output of dresses would increase fifty-fold. This would only make sense if the market demand for dresses would also increase fifty-fold, otherwise the dresses could not be sold. The rise in market demand is hampered by two factors:

(a) The affluent have the purchasing power but their basic needs have long been met. The demand they generate is for luxury goods.
(b) The poor have many unfulfilled basic needs but they lack purchasing power.

Up to a certain stage the problem can be solved by channelling the income generated by technology away from the owners of capital and skills (the affluent elite) to the common man - whether by means of state induced social services or by a policy of systematic productivity-oriented wage increases. In this way a mass consumer market is created without leading to inflation. When market demand increases, production can increase. More machines can be put into operation which are run, supervised and serviced by more people. In this way labour redundancy can be avoided up to a certain limit (Fröbel 1981:11). Much could be achieved if South Africa would adopt this type of strategy to make economic growth possible.

Sooner or later the limit is reached, however, because of two factors:

(a) As the masses of the population become more affluent, their more pressing needs are being met. They slowly move into
the situation of the affluent where they have the money but not the need to purchase more goods.

(b) Not all unskilled labourers are suitable to become skilled labourers or experts.

Obviously South Africa is far from having reached this limit.

Again this situation can be avoided in two ways:

(a) Redundant labour can be shifted from mechanised industries to non-mechanised industries, e.g. services. But this is only a temporary measure. Sooner or later technology also penetrates these. Labour is in competition with machines (=capital), but unable to compete effectively. Machines can produce faster, more efficiently, cheaper, more dependably. They do not ask for wage increases, humane working conditions, periods of rest. They do not strike, fall sick, get drunk, become moody or obstinate. The human being can no longer be enslaved - the machine is a perfect slave. Therefore the machine ousts human labour. In plain language, technology is chasing labour through the economy until the latter has no place to go. (Jones 1982: 17ff).

(b) One can produce for export. This presupposes that there is a market demand abroad. Market demand is composed of need and purchasing power. In the periphery there is sufficient unfulfilled need but no purchasing power. This problem can be overcome partially by lowering the price of the offered articles. Manufactured goods from the industrial centre displace local production because they are cheaper, better and more fashionable. The result is that local producers are put out of work. This means that the local population is deprived of its income - and thus of its purchasing power. The problem of labour redundancy and
collapse of income is exported from the industrial centre to the periphery population. The latter is being marginalised by the centre system.

While it marginalises the periphery population the centre system also destroys its own market in the periphery unless it channels increased income into the periphery to build up a mass consumer market. This can be achieved either by the transfer of money for welfare, or by locating parts of the industrial system in the periphery and systematically increase the wages of the workers there.

The first alternative does not occur on a significant scale because it does not make economic sense to centre business. If the latter supplies both the goods and the money to purchase the goods to the periphery, these goods are in fact handed out free of charge. Why should the centre do that!

The second alternative can at best reach a minority of privileged workers who build up, again, a market for luxury goods while the rest of the population is marginalised. Only if the entire Third World population was integrated into the system could this problem of marginalisation be avoided. In the real world the opposite happens: the marginalised section of the population grows faster than the integrated section.

In any case, all these ways out of the dilemma can, at best, shift the problem further in space or postpone it in time. Technological advances continue relentlessly and at an accelerating pace. Sooner or later machines displace labour in most sectors. The higher the level of technology the higher the sophistication required, and the smaller the number of labourers required. In the stage of automation where the whole production
is guided by computer programs and executed by robots, a tiny elite of experts earning high salaries is all that is left of the work force. Once the stage of computerised automation is reached no amount of capital investment is able to create jobs on any significant scale (Merritt 1982).

The development of this new technology, of course, creates jobs in the economy which is able to develop it. Thus the USA supplies research and development for the whole world and harvests jobs for doing so. The export of the technology thus created displaces labour elsewhere in the world (as much as it does in the USA) without the advantage the USA has in terms of job-creating research and development (Jones 1982:67). Here it needs to be remembered that South African industry is heavily dependent on foreign technology (Nattrass 1977:42ff).

But why not let the mechanical slave go on with the job and human beings enjoy their leisure? Apart from serious psychological and social problems generated by a loss of meaning, purpose and creativity in life, this could only work if the goods thus produced would be of such a nature that they fulfil the needs of the majority of the world population and that they would physically reach the latter. Both prerequisites can only be fulfilled if the wealth generated by the new techniques was translated into the purchasing power of the majority of the population either by internationally organised inter-state welfare grants or by voluntary transfers of the accumulating wealth from the centre economy to the peripheral population.

Within a centre this is not only possible but it has been done with considerable success. Wealth generated by technological progress has spread through the populations of countries such as the Netherlands, Sweden and Western Germany. The same is true for White South Africa. On world scale this is, at present at least, little more than a utopian dream. It would presuppose
the emergence of the kind of solidarity and responsibility that now exist within centre nations on a world encompassing basis, or to be less idealistic, of a reasonable balance of power between interest groups on a global scale. In South Africa it would presuppose solidarity between Whites and Blacks.

This will hardly happen, at least not within our lifetime and not at all if present trends continue. Its prospects are also not very promising within a Third World country such as South Africa. The reason is, again, to be found in Galtung's model. The relative privilege enjoyed by the White pc is due to its superior strength compared to cc - both in terms of bargaining power and democratic rights - and not because of the kind feelings of cc towards pc. Such powers are absent in pp and so there is no motivation to bring about what could, theoretically, be a solution.

There is only one factor which may force change onto the system: the limits to growth. Exponential industrial growth cannot continue indefinitely in a limited world. As pollution snowballs and resources are depleted the process approaches the wastelands. In similar fashion population growth in the periphery cannot continue indefinitely without mass starvation. At some stage the system must break down in the periphery (Mesarović 1974). Then the point is reached when it will either change or disintegrate. But the peripheral system can only change if the centre system changes as well because the former is an extension of the latter.

5.4.2 South African peculiarities

The South African situation can be summarised as follows:

(a) Traditional policies were designed to secure a sufficient supply of unskilled labour for farming, mining and manufacturing, to restrict the uncontrolled inflow of Blacks from
tribal areas and to protect the White worker from Black competition: limited access to land, taxation, pass laws, influx control and migrant labour recruitment, restrictions on Black training and trade unionism, job reservation, etc. (Van der Horst 1971; Doxey 1961; Horrell 1969).

(b) These policies created severe bottlenecks in the higher skills. The White minority could not cater for all the expertise needed in a young and growing industrial economy. Since the late seventies, therefore, restrictions on Black advancement in the cities have been relaxed considerably and the meeting of training needs has become a priority.

(c) But technological progress does not cater for the less skilled and unskilled. White redundancy was prevented by an extended bureaucracy and expansions to the services sector. To some extent this also happened in the case of Indians, Coloureds and urban Blacks (cf. Lombard 1980, figure 4).

(d) However, the economy could not absorb all redundant or potentially redundant Blacks. These were either "repatriated" into the already overcrowded Black areas or not allowed to leave the latter and look for work in the White area in the first place. As restrictions within the White centre eased, influx control measures were tightened (Gordon 1980:3).

(e) In the meantime mechanisation and automation advanced rapidly in the centre - even on the traditionally labour-intensive mines (Bromberger 1978: 54, 63). Influx control and a restive work force greatly enhanced this development. Even domestic servants are gradually phased out as machines take over domestic and gardening chores (cf figure 7).
Figure 7: Marginalisation through mechanisation in South Africa

NOTES

1. Baskin (1984:14) gives the following details on changes in the percentage share of employment in different sectors between 1960 and 1980:

<table>
<thead>
<tr>
<th>Sector</th>
<th>1960</th>
<th>1980</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>21,3</td>
<td>9,3</td>
</tr>
<tr>
<td>Mining</td>
<td>10,7</td>
<td>6,9</td>
</tr>
</tbody>
</table>

In most other sectors the percentage share has remained constant or risen marginally. For "total industrial" the share has dropped from 71,5% to 59,6% between 1960 and 1980.
2. Another indication of this development is the growth of the informal sector (see Pillay 1984:25ff).

3. Simkins registers an unemployment rate of 11.8% for all races in 1970 expressed in full-time job equivalents. It rose consistently every year to reach 20.8% in 1980. Note that this was a gold bonanza year and well before the great drought and the effects of sanctions set in (1982:6).

Various aspects of government policy had their effects on this development

(a) The 'civilised labour policy' embodied in the Wage Act of 1925 already led to the exclusion of Blacks who offered themselves on the labour market for low wages, impeded the free flow of labour from occupation to occupation according to market forces, gave rise to an accumulating wage gap and sowed the seed of unemployment (Van der Horst 1971: 252ff, 256ff).

(b) The large-scale removal of sharecroppers, labour tenants and squatters from White farms led to a concomitant rise in capital-intensive production on White farms. In the main maize producing areas, for instance, labour costs declined from 20.36% in the early seventies to 11.43% in the early eighties. In other agricultural sectors the drop was less dramatic but still significant in wheat and animal production (Fényes 1984:9). In turn, capital intensive technology displaced seasonal workers. While regular workers per 1000 ha dropped from 9.3 to 8.0 between 1968/9 and 1977/8, casual workers dropped from 8.7 to 6.1 in the same period (Fényes 1984:7). Heavy subsidies on capital items in White agriculture actually destroy jobs (p.18). (Cf. also De Klerk 1984 for the Western Transvaal.) Meanwhile these policies have backfired severely onto the farming community. Prolonged drought has rendered the debt-burden due to over-capitalisation unbearable and bankruptcy plagues the industry. More powerful farmers and urban based capital take over the farms and more jobs are lost through capital-intensive agriculture.

Almost 90% of farm labourers are engaged in physical work and only 2.2% in mechanical or managerial work. Almost 90% have less than 5 years of schooling (Fényes 1984:10). Removed from White farms, these people not only lose their jobs with the White farmer but also the possibility to rear cattle and plough fields with the farmer's consent. Both landless and unskilled, they add to the poorest of the poor in the 'Black States' (Simkins 1984:14). It is estimated
that more than 1 100 000 people have been affected so far through these removals (Simkins 1981:3; Surplus People Project 1983, vol. 1 : 6-7).

Another aspect of policy is the severe neglect of Black farm workers concerning the provision of schools, clinics, hospitals, housing, collective bargaining power, legal protection, recreation, etc. compared with Blacks in urban areas or even the 'Black States'. "All Black farm workers (0,9 million) depend largely on the goodwill, honesty and justness of their White employers." (Fényes 1984:12). The point to be made in the context of the present discussion, however, is that they are ill-equipped to cope with the transformation of White agriculture to industrialised modes of production.

(c) The Physical Planning and Utilisation of Resources Act of 1967 (renamed the Environmental Planning Act in 1977) made the establishment or 'extension' of a factory in certain areas subject to control. Since 'extension of a factory' meant any increase in the number of Black employees, this act could very well have contributed to a switch of industrialists to capital-intensive technology (Horrell 1982:93). A distinction was also made in 1971 between relatively White-labour-intensive (and locality-bound) industries which were encouraged in metropolitan areas and Black-labour-intensive industries which were to establish themselves as far as possible on the borders of Black areas (Horrell 1982:94). As industrialists were reluctant indeed to move out of the metropolitan areas for economic reasons they may have switched to capital-intensive production where possible.

Whatever the mix of causes, South Africa's industry has a capital-intensive bias if compared with other semi-industrialised countries (Levy 1981).

(d) Many statutory prescriptions which restrict the mobility of labour, insufficient labour information services, informal and formal job reservation, the wrong allocation of social costs as well as education and training, etc. also have a profound effect on the utilisation of labour compared with capital (Van der Merwe 1975:106).

A situation seems to develop in which a highly developed industrial centre involving all Whites and Asians, most Coloureds and a minority of urban Blacks dominates an impoverished periphery accommodating the majority of Blacks (cf. Zille 1984:51ff). This
periphery is, strictly speaking, increasingly becoming redundant for the centre, and is increasingly sealed off. Black wage gains between 1970 and 1975 have benefitted the privileged at the expense of the excluded (Devereux 1983:62). "The misery to be exploited by capitalists is nothing in comparison to the misery of not being exploited at all." (Joan Robinson, quoted by Fényes 1984:1).

The decentralisation policy tries to compensate for this trend by luring capital investments into development regions where certain White and Black areas are paired. But such investments can only be economical if the wage structure is kept well below corresponding capital cost, while high technology investments will create less and less jobs and may dislocate more local producers than it can absorb - if there is such a thing at all in the Black areas. This merits further investigation.

Sooner or later, of course, technological progress will also reach the centre population, the pC to be slightly more precise. The micro-chips wave is already busy sweeping counter clerks, secretaries, etc. out of offices. Counter-inflationary measures obviously lead to the retrenchment of Black workers first. But the process already begins to touch the lower ranks of Whites, Coloureds and Asians as well. The argument that the growth of the economy is necessary to absorb the growing work force becomes less and less valid as capital replaces labour and production gears itself for the luxury demand of the privileged elite. The economy can only grow if a mass consumer market is built up and if production is geared to the needs of the majority of the population. And this can only be achieved by channelling wealth from the elite to the underdog as indicated earlier on.

We can summarise the discussion so far by saying that technological progress reduces the numbers and strengthens the potency of the centre population. The reason for this
phenomenon is that technology outperforms labour in terms of productivity to the benefit of its owners and operators. The whole economy orientates itself to this elite.

But this is not the only way in which technology can enhance the power of the centre. Technology can be utilised in various ways to the benefit of its owners who are, by and large, located in the centre:

(a) to supply its owners with information, both technical and intelligence,
(b) to build up a communications network operating both intra-central and inter-central,
(c) to spread selected and interpreted information for propaganda purposes,
(d) to assist in security operations,
(e) to enhance the efficiency of administrative control,
(f) to build up military power, including logistics. Military investments have led to a thriving growth industry in its own right.

Being a minority, the centre population would not be in a position to defend its highly productive plant against a possible onslaught from the side of the periphery, nor control and manipulate the latter to its own advantage without its technological superiority. In turn its higher productivity supplies the centre with the means to enhance technological progress through research and development. The periphery has no such surpluses to spend. It is a typical example of a 'vicious circle' in the periphery and a 'golden spiral' in the centre. Differential technological advance is thus a key factor in the causation of the growing economic discrepancy between centre and periphery.
5.4.3 The overall capacity of the economy

Before we leave this theme one more element must be added to the puzzle: the declining potency of the South African economy as a whole, relative to its growing population. Even if capital would not replace labour, an increasing percentage of the population would be marginalised because the growth of the economy lags behind population growth at an increasing rate. Apart from that it has often been observed that the productivity of the South African economy is dismally low by world standards. So far gold and other minerals have bailed the country out. But mineral deposits will one day be exhausted. The long term prospects of the country's economy are not bright at all and it is the marginalised who will suffer most.

5.5 VOLITIONAL FACTORS (taken from Nürnberg 1983:18-21)

I have discussed a few examples of structural mechanisms which contribute to the growth of economic discrepancies. These can be expected to operate under normal circumstances but there is nothing deterministic about their existence and nature. Water normally flows down but it can also be forced upwards by means of a pump which exerts enough power to cancel the force of gravity. The presupposition is that somebody wants to pump it up. This brings us to the second type of cause, viz. volition. Economic potential can be used by those who control it, either to enhance structural mechanisms which lead to inequality or to neutralise such forces.

Most fundamental in this regard is the question whether the prevailing system of meaning with its set of definitions, values and norms prevents or encourages the pursuit of one's own vital interests at the expense of others.
Western society has developed a mentality which not only condones but actively promotes the acquisition, development and utilisation of all available resources for private (or particularist) gain. Capitalist liberalism locates self-interest in the individual, nationalism locates it in a particular group. But both view the unrestricted pursuit of self-interest not only as acceptable behaviour but as a positive virtue. From infancy the youth is conditioned to excel, to outperform others, to compete, to consider what he has acquired, his own by right.

In contrast, African culture through the ages has developed a system of meaning in which the equilibrium within the community - stretching backwards to the deceased and forward to the not-yet-born - is absolutely paramount (Nürnberg 1975). The development and use of particular gifts for private purposes was viewed not only with suspicion but considered to be positively dangerous to the life of the community. What I achieve is never my own. Economic potential is a collective, not a private asset. Private gain is taboo in all its forms.

The most abhorred and dreaded of all social practices, sorcery, was not taken to be vicious because it involved magic. If used by the authorised agents of the community on behalf of, and for the benefit of the community, magic was seen in a very positive light. Sorcery is wicked precisely because it utilised available powers secretly, for private purposes, and thus against the interests of the community or one of its members.

Speaking in more general terms, we can say that while collective or individual selfishness has probably plagued the human race throughout its history, most cultures have devised social means to keep its devastating effects under control. The corollary is that severe restrictions have been placed on the acquisition, development and use of the economic potentials of the individual or the group. Western liberalism and nationalism, in contrast,
have turned this general tendency into its opposite. Cut-throat competition is no longer a vice even if it ends in conflict. An enormous dynamic is the result. It is accompanied by the rapid development of huge discrepancies in economic potential, political power and social prestige - a thing unheard-of, for instance, in traditional African society.

When the Western competitive spirit interacts with the African spirit of equilibrium it is obvious who the winner in the game will be. The minds of Africans were not geared to the tactics of outperforming others economically. They normally preferred to make peace and find their slot in the social hierarchy. By the time Africans learnt to fight back on the terms of the Western value-system Westerners had used their advantage to entrench themselves in an unassailable position of power - fully convinced that they were entitled to it because they outwitted, out-manipulated and outperformed the Blacks.

With this I do not want to suggest that there was ever a time when Blacks did not resist colonial expansion, imperialist domination and the denial of citizenship rights by Whites. The span of military ventures from the first eastern frontier war in 1779 to the Bambata rebellion in 1906 has, since about two decades ago, been resumed in the form of guerilla warfare. In between there were petitions, passive resistance campaigns, strikes, etc. (Horrell 1971; Adam 1971; Schlemmer 1983a:1-7). Also in economic terms there seems to have been a fairly rapid orientation towards the opportunities of the market economy in a variety of cases (Bromberger 1979: 61-64). On the whole, however, the power of Blacks was no match for the power of their White counterparts - not only in terms of technology, organisation and administration, particularly of a military nature, but also in terms of the resolve to let one's own vital interests rule supreme.

It is mainly this competitive, ruthlessly selfish spirit which Western civilisation brought to Africa in the form of imperialism, capitalist liberalism and nationalism, and not primarily the quite
contrary values of Christianity and humanism. The latter at best mellowed the impact of the former. We should not be surprised, therefore, that Whites in South Africa have used their superior power not to counteract structural imbalances between centre and periphery but to enhance them.

Let us enumerate a few well-known examples. On the side of the peripheral population the development of potentials has been curtailed either neglectfully or deliberately by such measures as severe restrictions to the access of land, neglect of infrastructural development, severe imbalances in education and training opportunities, limitations on the access to higher trades, professions and entrepreneurial activities, the prevention of structural power-formation in the form of trade unions or political parties, strict control of movement and communications, consistent exclusion from the central decision-taking processes, deprivation of the right to be part of the centre as the economic power house of the country. Within a system geared to competition all this boils down to a deliberate and largely successful attempt to break down any would-be competitiveness of the peripheral population - which happens to be Black in our country.

On the other hand equally effective measures have been taken to enhance the competitiveness of Whites: the "civilised labour policy", artificial bottlenecks in skills and professions leading to a high income structure, encouragement of commercial farming, measures to ensure the supply of cheap labour on farms and mines, repatriation to the periphery of redundant labour and "unproductive elements" which would push up social costs for the centre, gradual replacement of unskilled labour by capital-intensive technology which becomes cheaper, more effective and easier to control than labour on farms and mines, in industry
and in the services, etc. (For an overview of these measures see Bromberger 1982).

To summarise: structural mechanisms and volitional factors based on prevalent value systems combine and reinforce each other progressively to increase the gap in potential between the strong and the weak - unless some powerful countervailing forces come into play. As Knight puts it: "The market mechanism, if aided by legal and administrative restrictions on Black labour, acts as a malevolent Invisible Hand to produce increasing racial inequalities of income." (Quoted by Bromberger 1982:191).

A pattern now seems to emerge in which a highly sophisticated industrial economy develops in the White controlled centre. This progressive and wealthy core is surrounded by seriously overcrowded, economically impotent and rigorously sealed-off patches of country, the inhabitants of which may in the long run no longer be exploited by the centre but simply be considered redundant for its mechanised and self-sufficient economic system - serving, at best, as a recipient of 'development aid' and charity.

In this respect South Africa increasingly seems to develop into a replica of the world situation as a whole. Is it impossible that South Africa can - with all eyes fixed on this country - offer the world a different sort of model for the future?

There are basically two ways in which the situation can be retrieved. Either the peripheral population can learn to use Western tactics, muster sufficient collective power, gain allies, gradually force its way upward and eventually strike a balance with, or overpower the existing elite.
The alternative is that the present elite discovers that it is in its own long-term interest to restructure both the economy and the society while it has the power to control the transition. But this would presuppose a change in the whole system of meaning, its definitions, values and norms.

The question is whether the two alternatives are mutually exclusive, whether the problem must not be tackled from both ends if a solution is to be found which brings justice to all, and whether a Biblically oriented ethic has any contribution to make in this regard.

5.6 SUMMARY

In this chapter we developed a model of causation of potency discrepancies and discussed three of the contributing factors in greater detail.

The model of causation distinguishes between potency factors inherent in the centre, factors of impotence inherent in the periphery and the effects of an asymmetrical interaction. In each category we again distinguished between structural mechanisms and volitional factors (5.2).

We then turned to three examples. The first was asymmetrical market interaction. We saw that this phenomenon increases both the affluence gap in the centre and the poverty gap in the periphery. These insights were then applied to Galtung's model. We also added a few remarks on decentralisation (5.3).

The second area was the effect of technological progress. We saw the emergence of a technological elite which possesses secure jobs, receives high incomes and attracts production to its luxury
demand. The rest of the population increasingly falls into redundancy as technological progress pushes it out of the market for factors of production. South African racial and spatial policies enhanced this development (5.4).

The third discussion brought us into the realm of volitional factors. We saw that human beings can either enhance or counteract the structural mechanisms which lead to the gravitation of potency towards the centre. This largely depends on their system of meaning and their normative system. Western civilisation has, over the last three centuries, increasingly placed a premium on the development of personal initiative to maximise private gain. Nationalism has collectivised this trend. Traditional African cultures, in contrast, valued social equilibrium highly and discouraged private initiative. This motivational imbalance seems to have been a strong contributing factor in the emergence of potency discrepancies (5.5).

The overall impression gained from this discussion is that structural mechanisms and volitional factors combine and reinforce each other to progressively widen the gap in potency between the strong and the weak unless some powerful countervailing forces come into play. With this we conclude Part I on economic power structures. We now turn to the realm of human consciousness.