

## Chronique bibliographique

### Occam, Francis Bacon and the Transformation of Zambian Society\*

#### 1. Introduction<sup>1</sup>

Among African countries, Zambia has a generous coverage in the social science literature. After a slight stagnation in the 1960's, the present decade has already yielded a series of excellent studies<sup>2</sup>. These studies try to trace the contours of post-independence Zambian society from one vantage point: medium-size or giant urban industry; the political system considered at the national, the local-urban, or the village level. Confronted with the complexity of social change in this country, such studies provide indispensable contributions to a more comprehensive understanding. But however keenly the need for synthesis is felt, the time seemed not ripe yet for the production of a full-size, interdisciplinary approach to modern Zambia, one encompassing both urban and rural, both historical currents and the post-independence scene, both the vast volume of pre-independence studies and the theoretical questions of today.

Against this background Robert H. Bates' newly published book *Rural Responses to Industrialization* must be acclaimed as the first attempt towards such a synthesis: « In this book I have attempted to account for the transformation of Zambian society and for the pattern of disparate opportunities which has resulted. More centrally, I have examined the response of the villages to the precipitate growth of the industrial centers of Zambia » (p. 252, *my italics*).<sup>3</sup> Bates' determination to go beyond the previous writers'

\* Robert H. BATES, *Rural Responses to Industrialization: A Study of Village Zambia*, New Haven & London, Yale University Press, 1976, xii & 380 p.

<sup>1</sup> I am indebted to Louis Steen (Technical Centre, Faculty of Social Sciences, University of Amsterdam) for statistical and computer advice; to Klaas de Jonge for demographical advice; to the members of both the Migration and Rural Development Section, and the Working Group on Marxist Anthropology, Afrika-Studiecentrum, Leiden, for stimulating discussions on related topics; and to Klaas de Jonge and Jos van der Klei for comments on an earlier draft.

<sup>2</sup> To mention only a few: G.C. BOND, *The Politics of Change in a Zambian Community*, Chicago & London, 1976; P. HARRIES-JONES, *Freedom and Labour*, Oxford, 1975; B. KAPFERER, *Strategy and Transaction in an African Factory*, Manchester, 1972; R.L. SKLAR, *Corporate Power in an African State*, London, 1975; W. TORDOFF (ed.), *Politics in Zambia*, Manchester, 1974.

<sup>3</sup> R.H. BATES, *Rural Responses to Industrialization*, New Haven & London, 1976; page references in the text are to this book.

one-entry approach brings him to consider the imposition of colonial rule; the establishment of commercial farming and mining along the « line of rail »<sup>4</sup>; rural-urban migration; the struggle for territorial independence; patterns of government expenditure and policy in both the colonial and the post-independence era; the vicissitudes of African farming and the cooperative movement; party conflict at the national and local level; sectionalism and the growth of disenchantment vis-à-vis government in the rural areas after Independence (1964).

This is an important book, not because of its classic qualities, but because it is a major step towards asking the right questions concerning the transformation of Central-African society; even though, as I shall argue in this review article, most of Bates' answers to these emerging questions are wrong.

## 2. Structure and Method

Two devices have enabled Bates to handle this complexity. The first, a fortuitous one, is to present the data as what one might call an over-commented case study: namely of Kasumpa, a village cluster in Luapula Province, hundreds of kilometers away from Zambia's economic and political centre. The history of this village and its place in Zambia's contemporary political and economic structure articulate the central problems at the descriptive level. National-level data derived from industrial and government bureaucracies, national censuses, the scholarly literature and a limited amount of urban fieldwork, are used to set a framework. Within this framework Bates endeavours to both understand the Kasumpa experience and make national trends visible. Chapters on Kasumpa alternate with more general chapters on « investment in the center », « post-independence patterns of public expenditure », etc. The data presented in the national chapters tend to have been treated more extensively by other authors. But even in these chapters, Bates does more than providing a reasoned catalogue of the Zambian literature. By letting his leading questions arise out of the Kasumpa material, he rearranges familiar national material in a manner that makes interesting reading.

His original data on Kasumpa are fascinating. This part of Luapula Province stands out for its prominence in the 1961 rural upheaval (commonly called « Chachacha »), that sped up Zambia's attainment of Independence. Along with other authors<sup>5</sup> Bates

<sup>4</sup> In the Zambian context, the « line of rail » denotes the concentration of towns, industry and commercial farming stretching from south to north between Livingstone and the Copperbelt.

<sup>5</sup> G.C. BOND, *op. cit.*; F. MACPHERSON, *Kenneth Kaunda of Zambia*, Lusaka, 1974, p. 340f; H.S. MREBELO, *Reaction to Colonialism*, Manchester, 1971; T. RASMUSSEN, *The Popular Basis of Anti-Colonial Protest*, in W. TORDOFF, *op. cit.*, p. 40-61.

provides a corrective for the approach that views Zambian nationalism as a predominantly urban affair.<sup>6</sup> The Luapula villagers have strongly identified with the United National Independence Party (UNIP) that brought Zambia independence. But this identification is not unconditional. Bates pictures the population as expecting post-independence returns for their sacrifices during Chachacha: they manipulate party ranks, local councils, and the political centre, trying to convert political support into individual employment and local public expenditure. Moreover, Kasumpa offered opportunities for an assessment of the government's attempt to develop the Zambian countryside through cash-crop farming and the cooperative movement. As elsewhere off the line of rail, the picture is one of failure, which Bates attributes to largely three factors. The first is the decline in prices for agricultural produce; when prices rose again (1968) a heavy blow had already been dealt to emergent small-scale farming. Secondly there is the dramatic inefficiency of the government bureaucracies; on these the farmers, far away from other channels of marketing and supply, become entirely dependent when taking to modernizing their production. Finally the government is blamed for viewing rural Zambians as collectivists — whereas Bates considers them as individualist *Homines economici* (p. 275 f., 307 f.). The detail in Bates' description of these rural development problems (largely derived from the current files of local-level bureaucracies) makes these parts of the book a useful addition to the literature on the subject in Africa.

Rural case study and national overview support each other and create tension and direction throughout the book. Where so many rural studies fail to relate the local scene to its national setting, Bates' treatment of the national dimension of Kasumpa village is lucid and convincing to a point. However, choosing Kasumpa as his focus, the representativity of this village for Zambia as a whole is of some importance. On this point I have considerable doubt. Bates selected an area that, while rural, distant from the line of rail, and Bemba-speaking, would at the same time satisfy his research requirements of « housing, access to office equipment (...), night classes taught in English at the secondary school level » (p. 270). Kasumpa is adjacent to one of the major Christian missions in the area, including a secondary school and a hospital. This hardly sounds like the rural Zambia I am familiar with. Bates' attempts to correct for any bias inherent in the choice of Kasumpa, were confined to the « other villages in the area » (p. 271) and

<sup>6</sup> I. HENDERSON, *The Origins of Nationalism in East and Central Africa: The Zambian Case*, in *Journal of African History*, 11, 4, 1970, p. 591-603; for some support for Henderson's position, however, cfr W.M.J. VAN BINSBERGEN, *Religious Innovation and Political Conflict in Zambia*, in: W.M.J. VAN BINSBERGEN & R. BUIJTENHUIJS (eds), *Religious Innovation in Modern African Society (African Perspectives)*, Leiden, 1976, p. 101-35, especially p. 112f.

therefore would not counteract the major bias inherent in the selection of a rather « progressive » research site. It is a pity that Bates is so reticent on the material he collected locally on the influence of mass media, teachers and church ministers. We are merely told that this material indicated an « obvious relative insignificance of these influences » (p. 272) ; yet in this « progressive » setting these influences may have been significantly greater than in rural areas truly remote from modern agents. Politically the Kasumpa material also seems to stand out. Active participation in the struggle for independence ; close if not unconditional identification with UNIP ; and rather successful exchange of local votes against government benefits — these features do not reflect a general pattern in rural Zambia. Instead they seem peculiar to Luapula, with possible parallels elsewhere in the northern and eastern parts of the country, but contrasting sharply with the political situation in e.g. Western (formerly Barotse) Province. However, the possibly unique features of Kasumpa do not render Bates' argument immediately invalid : just as one case in anthropological or legal analysis may help to define the structure and limits of a complex system without having to be fully representative for all elements within that system.

A more serious objection is that Bates, emphasizing Kasumpa's being part of a wider scene, does not adequately study the internal structure and dynamics of this village society. I shall return to this point towards the end of my argument, when we shall be in a better position to appreciate it.

A specific theoretical perspective forms the second device Bates employs to connect the variety of topics, pertaining to different academic disciplines. The success of the synthesis of course depends on the merits of this perspective. Here all the difficulties that so far have discouraged others become apparent. How does one discuss, within one unitary framework, and without sacrifice of clarity and theoretical profundity, such diverse issues as pre-colonial state systems, labour migration, government expenditure, and the growth of sectional conflict ?

Africanist writing provides numerous examples of one particular solution to this problem : the historiographic method. Characterized by both a meticulous treatment of qualitative data, and a refreshing lack of concern about systematic concept formation and formal theorizing, the historiographic method (which is also used in many political and developmental studies) has proved to be suitable for the explorative phases in the study of African social change.<sup>7</sup> Where data are still scarce and the provisional frame-

<sup>7</sup> Zambian examples include : G.L. CAPLAN, *The Elites of Barotseland*, London, 1970 ; R. HALL, *Zambia*, London, (1965) 1968 ; A. ROBERTS, *A History of Zambia*, London, 1977 ; R.I. ROTBERG, *The Rise of Nationalism in Central Africa*, Cambridge (Mass.), 1967.

work has to be heuristic rather than explanatory, the historiographic method has yielded comprehensive insights often far superior to those derived from less « soft » methodologies (e.g. as in economics or sociology). However, Bates wants to reach beyond historiography; he wishes to explain systematically and on a high level of theoretical sophistication. Groping then for a method that will enable him to explain it all, he sees no other solution but that of methodological individualism, more specifically the theory of rational choice. The units of analysis in this approach are not social entities, groups, classes, etc., but real or hypothetical actors, who perceive and interpret their social and natural world; this approach views social action as these actors' choices, made on the basis of their perceptions and interpretations; such choices are not random but betray some underlying social logic, which this approach seeks to describe.

Methodological individualism has a long history in the social sciences.<sup>8</sup> However its sociological status is controversial. For the social sciences could emerge, over the past century and through the works of Comte, Marx, Durkheim, etc., precisely by virtue of the discovery of social structures and regularities that confront individual man *irrespective* of whether he consciously perceives them. These fundamental structures and regularities largely determine man's social life, even if they do not enter into his conscious rational choices; what is more, they largely determine his very perceptions and choices! Subjective, rational choices do not contain the crux of social life, for these choices are made within the very narrow confines of an objective structure which we have to explain in the first place. No matter if we adopt the functionalist, marxist, or any other brand of the current criticism of methodological individualism, Bates' approach calls for explicit theoretical justification; and this he fails to provide. Below (section 5) I shall try to identify the structure behind Bates' apparently deliberate choice for methodological individualism.

But, one might argue, the proof of the pudding is in the eating. Perhaps Bates' analysis may turn out to be so convincing that it amounts to a fresh defense of methodological individualism. If not, failure of his explanatory device means that his laudable attempt at synthesis is doomed.

Let us consider his method in more detail: « I posit actors of various kinds; I assume that they behave purposefully; and I assign rules by which they make choices so as to attain their goals. I then argue, in effect, that given certain initial con-

<sup>8</sup> Cf. M. WEBER, *The Theory of Social and Economic Organization*, Glencoe, 1964, p. 88f; S. LUKES, *Methodological Individualism Reconsidered*, in D. EMMET & A. MACINTYRE, *Sociological Theory and Philosophical Analysis*, New York, 1970, p. 76-88, and references cited there; J. O'NEILL (ed.), *Modes of Individualism and Collectivism*, London, 1973, parts 3 and 4.

ditions, the choices these actors would make if their goals were in fact those I assigned to them and if the rules they observe were in fact those I set for them — the choices they would make if these things were « true » would then generate the empirical realities I seek to account for. The actors I posit are the following: public investors, private investors, producers, consumers, voters, and politicians » (p. 6). The variety of actors enables Bates to link all the main topics in Zambian social change. The growth of the line of rail is presented as the outcome of the rational choices of public and private investors, responsible for creating an industrial and administrative infrastructure there. This created markets of labour and agricultural produce, access to which was to determine the rural responses to industrialization in Zambia. The labour market offered such differential incomes to villagers off the line of rail that rural out-migration emerged as an individual, if massive, rational choice. Other villagers, notably those closer to the line of rail, began to pursue commercial farming, allegedly as an alternative but equally rational and individual choice, to enhance their incomes through operation of the produce market. Government is claimed to ultimately aim at maximization of its own revenues, support and the realization of ideological goals: to succeed in this, government relates to the private markets as an influence upon their opportunity structure: either promoting the interests of some actors (e.g. white settlers, capitalists) over others (e.g. Africans) by taxation, legislation, etc. — or offering substitutes for private markets in areas where they do not penetrate. An example of the latter is the creation of government marketing agencies off the line of rail, where transport is so costly as to deter the private market. Thus political participation (including the struggle for independence and the post-independence growth of sectionalism, regionalism and political protest) is explained as an indirect device to attain rational maximalization of individual incomes: government is brought to substitute what participation in the private markets has failed to provide. The strife for income maximalization in fact becomes a refrain that sounds with disconcerting regularity in all chapters of this book.

A number of problems arise at this point. First, the reader is to be persuaded that the actors' goals and rules as propounded by Bates really closely resemble those in operation in the true-life situation. Might not the permutation of millions of other goals and rules have produced, at the empirical level, the same outcomes? Bates is remarkably quick in passing over this point. Thus we hear of the presumably universal preferences and strategies of private and public investors (p. 16, 28 f. 108 f) without much evidence to substantiate the author's claims. Explanation then rapidly degenerates to become a-prioristic assertion.

A second problem has to do with the minimalization of ex-

planatory hypotheses in the argument, in other words: Occam's Razor. Bates realizes how narrow his explanation in terms of individual actor's rational choices is, particularly when exclusively revolving on maximalization of their private incomes (p. 275 f). But this does not worry him, for, as he declares towards the end of the book, « An individualistic model appears to have done better than any alternative I can think of » (p. 258). Did he think hard enough? Energetically wielding Occam's Razor, Bates clears through the bush of Zambian social change, seldom stopping to consider alternative, more complex tools. The fundamental confining structures that, as I claim, we have to explain in the first instance, remain hidden under the vague phrase « certain initial conditions ».

A third problem has to do with the handling of empirical data. To keep Occam company we could name it after that founder of experimental science, Francis Bacon. Even assuming that the actors' goals and rules have been realistically defined and that Occam's Razor has not cut too finely, there is still the question of treating the actual data so as to enable a fair test of the theoretical construction.

Having already dealt within the first problem, I shall now discuss the second and third, starting with the latter.

### 3. *Tribute to Francis Bacon: Bates' Quantitative Analysis*

Bates makes extensive use of quantitative data, which he analyses by means of standard statistical techniques, particularly regression analysis. In the present section I shall expose the errors in his quantitative approach. As quantification forms the main basis for Bates' interpretation of the transformation of Zambian society, I cannot limit myself to brief general remarks in passing, but have to go to the roots of the data and methods applied. A technical and at times tedious discussion of details is necessary here.

Regression analysis<sup>9</sup> is one of the most powerful multivariate techniques. It enables the researcher to express a dependent variable,  $Y$ , as a linear function of a series of independent variables  $X_1, X_2, \text{ etc.}$ :

$$Y = A_1X_1 + A_2X_2 + A_3X_3 + \dots + A_nX_n \quad (1)$$

where  $A_1, A_2, \text{ etc.}$ , are the standardized regression coefficients. The associated multiple correlation coefficient,  $R$ , is a measure for the extent to which the polynomial predicts the values of  $Y$  as found empirically.  $R^2$  is therefore an estimate of the fraction of the total variance of  $Y$  explained by the regression equation. A

<sup>9</sup> Cf. Kim JAE-ON & F.J. KOHOUT, *Multiple Regression Analysis*, in: N.H. NIE et al. (eds), *Statistical Package for the Social Sciences*, (2nd ed.), New York, etc., 1975, p. 320-67, and references cited there.

more conservative and often more reliable measure is « adjusted  $R^2$  », which is a function of :  $R$  ; the number of independent variables in the equation ; and the sample size,  $N$ . As Bates does not give the values of adjusted  $R^2$ , I computed those quoted below. An F-test indicates the extent to which the fraction of variance explained may be attributed to chance. Instead of standardized regression coefficients (on the normalized variables, i.e. transformed towards a mean of 0 and a standard deviation of 1), one can use unstandardized ones :  $A'_1$ ,  $A'_2$ , etc.; in that case the polynomial contains a constant,  $C$ . Simple t-tests may be performed to assess if  $A'_1$ ,  $A'_2$ , etc., differ significantly from 0, i.e. if the associated independent variables do or do not make a significant contribution to the equation.

Regression analysis becomes meaningless if employed on bad data, if interpreted with violation of statistical conventions, or if stretched beyond the actual information content of the equations. Bates' use, I am sorry to say, falls victim to all these errors. Remarkable, though venial, is his reluctance to state sample sizes, which the reader then has to estimate from  $t$ ,  $F$ , and  $R$  values and their combination. This omission occurs not only in the national-level analysis, but also in the Kasumpa case study, so that the reader can only guess even at the order of magnitude of the population of Kasumpa. More serious is when Bates misrepresents the significance of  $t$ -values,<sup>10</sup> and continually switches from accepted (.05, .01 and lower) to spurious (.1 ; p. 193) and even ridiculous levels of significance (.25 ; p. 128, 193).

An example of where this leads is Bates' attempt to substantiate the hypothesis that the post-independence UNIP government has a preference for public investment in opposition (African National Congress, ANC) areas, allegedly in a bid to win the ANC votes. Regressing the public expenditure against the ANC vote and agricultural potential (the preponderance of cattle and plows), all per district, Bates builds a complex argument on  $R^2$ -values as low as .14<sup>11</sup> or even .06.<sup>12</sup> The regression equations thus

<sup>10</sup> E.g. on p. 171,  $t$  [ $df = 27$ ] = 1.00 is presented as « significant », although the associated probability is as high as .16. On p. 200,  $t$  [ $df = 90$ ] = -1.076, and  $t$  [ $df = 90$ ] = -1.221, are presented as significant at the .1 level, although at that confidence level  $|t|$  [ $df = \infty$ ] =  $|z|$  = 1.28, while for any  $df < \infty$ , per definition the following inequality holds :  $|t| > |z|$ , at any confidence level.

<sup>11</sup> Using formula (32) in JAE-ON and KOHOUT, *op. cit.*, p. 335, I computed  $N$  from the given values of  $R^2$ ,  $F$ , and the number of independent variables in Bates' equations no. 2 and 3 (p. 128f). Here  $N$  turned out to be 40. The information is insufficient to assess whether the same  $N$  applies in equation no. 1 (p. 127), whereas the same computation applied to the parameters of equation no. 4 (p. 129) yields a value for  $N$  of 43.27, which is odd for more than one reason. Bates presents all four equations as referring to the same sample. With  $R^2 = .14$ , and assuming  $N$  to be 40, adjusted  $R^2 = .10$ ;  $F$  [ $df = 3 ; 36$ ] = 1.98 (Bates finds  $F = 2.161$ ), neither  $F$ -value being significant at the .05 level.

<sup>12</sup>  $N = 40$ ;  $R^2 = .06$ ; adjusted  $R^2 = .01$ ;  $F$  [ $df = 3 ; 36$ ] = .74, not significant at the .05 level.



derived could explain only about 10 % of the variance. Yet Bates does not consider other factors.<sup>13</sup> Instead, he justifies his equations by claiming that the very high simple correlations between his independent variables (ranging from .76 to .88; this condition is technically known as « multicollinearity ») should cause a downward bias on the statistics, in other words more variance would be explained than the R, F and t statistics indicate (p. 304). This claim is ludicrous: multicollinearity is generally considered to make the results of regression analysis blurred and unreliable, which is the opposite of more significant.<sup>14</sup> The standard way-out is to avoid multicollinearity, either by excluding one of each pair of highly correlating independent variables from the analysis, or by recombining the information contained in them. The latter can be done by factor analysis upon the independent variables, revealing the underlying principal components; by computing « factor scores » on the basis of the original variables, more useful new variables can be constructed that are chosen to be as unrelated as possible, while largely retaining the original amount of information.

Regression analysis also dominates Bates' analysis of *migration* in post-independence Zambia. His approach is in principle quite sophisticated. He selects a measure for the migratory performance of Zambia's 40-odd districts, takes this index as his dependent variable, and regresses it with a number of independent variables (see my table 1, *infra*) that fit into his conception of migration as being dominated by the actors' desire of income maximalization.<sup>15</sup> Let us consider his approach in detail.

Bates claims that a reasonable estimate of district migratory performance can be found in Jackman's index<sup>16</sup>,  $Y_i$ , which Bates defines as

$$Y_i = \frac{P_{i\ 1969} - (P_{i\ 1963} + K \times P_{i\ 1963})}{P_{i\ 1963}} \times 100 \quad \dots (2)$$

where P is population, i is a particular district, and K is the overall national population increase between the 1963 and 1969

<sup>13</sup> In this context, Bates might profitably have consulted RASMUSSEN (*op. cit.*, p. 59f), where such other factors are spelled out; Rasmussen concludes moreover that the ANC situation demonstrates « that voters do not make their choices solely on grounds of material interests » (*l.c.*; *cf. infra*, section 4).

<sup>14</sup> *Cf.* Kim JAE-ON & J.H. KOHOUT, *op. cit.*, p. 340f, and the references cited there.

<sup>15</sup> *Cf.* the separate and in some respects more extensive report of the same analysis, containing the same gamut of errors, in: R.H. BATES & B.W. BENNETT, *Determinants of the Rural Exodus in Zambia*, in *Cahiers d'études africaines*, 14, 3, 1974, p. 542-64.

<sup>16</sup> *Cf.* M.E. JACKMAN, *Recent Population Movements in Zambia*, Manchester, 1973, p. 8f.

census (in Zambia,  $K = 16.2\%$ ). A number of striking deficiencies are observed here. First, Bates' formula significantly differs from Jackman's index. Although Jackman does not explicitly give a formula, the numerical data she tabulates<sup>17</sup> establish beyond doubt that in her method the numerator is as in (2), but the divisor is not  $P_{1969}$  but  $(P_{1969} + K \times P_{1963})$ . The latter is somewhat more meaningful and at any rate implies a 14% decrease of the absolute values of  $Y$ , as compared to (2). We may assume that for the actual regression analysis Bates used the indexes from Jackman's table rather than computing them afresh with his own, different, formula. However, he obviously does the latter when, for an initial analysis of variance, he recombines the 42 Zambian districts into urban/rural and line-of-rail/off-the-line-of-rail dichotomies.<sup>18</sup>

Having thus given an example of the caution which he claims (p. 164) to handle Jackman's index, Bates proceeds to arrange his whole migration analysis around this index. But no matter its use by previous authors,<sup>19</sup> it is absolutely *invalid* as a measure of district migratory performance. It cannot differentiate between the effects of internal migration within Zambia, and those of international migration across Zambia's borders. Given the very massive influx of immigrants,<sup>20</sup> as well as the considerable international out-migration due to the repatriation of foreigners (attainment of independence in 1964), migrant labour in Southern Africa, and the exodus of at least 20,000 Lumpa adherents after the 1964 rising,<sup>21</sup> we do not know which portion of the 16.2% figure is due to natural increase (fertility gains minus mortality losses), and which to international migration. Following Ohadike,<sup>22</sup> Bates claims that the great majority of immigrants into Zambia was absorbed along

<sup>17</sup> M.E. JACKMAN, *op. cit.*, tables 1 and 2. The index appears in the right-hand column of her table 2, p. 9. To demonstrate how she arrived at the index values, let us consider e.g. her figures for Chipata district.  $P_{1963} = 240,158$ ;  $P_{1969} = 261,070$ ; Expected  $P_{1969} = 1.162 \times P_{1963} = 279,064$ ;  $Y = -6.5$ . With these data, this value of  $Y$  can only be obtained as I say. Division by  $P_{1963}$ , instead of Expected  $P_{1969}$ , would have yielded a value of  $Y$  of  $-7.5$ .

<sup>18</sup> Tables 8.4 and 8.5, p. 165.

<sup>19</sup> M.E. JACKMAN, *op. cit.*; M.D. VEITCH, *Internal Migration, 1963-69*, unpublished paper presented at the Zambian Economics Club, Lusaka, 1970; Jackman justifies her approach by reference to G.W. BARCLAY, *Techniques of Population Analysis*, New York, 1958/1966, and J.I. CLARKE, *Population Geography*, London, 1965. For an equally crude index of Zambian internal migration based on sex ratios, likewise justified by further references, cf. H. HEISLER, *The Pattern of Migration in Zambia*, in *Cahiers d'études africaines*, 13, 1973, p. 193-212, especially p. 197 f. A rather more sophisticated index of 'rural male absenteeism' in J.C. MITCHELL, *Factors in Rural Male Absenteeism in Rhodesia*, in D. PARKIN (ed.), *Town and Country in Central and Eastern Africa*, London, 1975, p. 93-112, especially p. 96 f.

<sup>20</sup> The 1969 census found nearly 300,000 people to be living in Zambia but born outside Zambia: 7.3% of the national population; Central Statistical Office, *Census of Population and Housing, 1969: First Report*, Lusaka, 1970, p. B27 f.

<sup>21</sup> M.E. JACKMAN, *op. cit.*, p. 51 f.; *Zambia Mail*, 4th and 21st June, 1968.

the line of rail; consequently, Bates' main sample of 28 districts used for regression analysis was confined to the rural areas. However, there has also been a significant rural influx of international migrants, which cannot fail to affect Bates' data. Not unaware of this fact, Bates even decided to discard some rural districts (Solwezi, Senanga and Kaoma), since there the index suggested a rural influx instead of rural exodus — which Bates interprets, probably correctly, in terms of the immigration of Angolan refugees. But two of these districts are further away from Angola than several others that remain in the sample: Kalabo, Zambezi, Mwinilunga, Kabompo, Mongu, Sesheke; Angolan immigration has been considerable also in the latter districts, even though the index suggests an exodus balance there. This point illustrates both the invalidity of the Jackman index and Bates' biased data selection.

Neither can we assume that natural increase is evenly spread throughout Zambia. Bates realizes this point, referring to Mitchell's studies of differential fertility among urban Zambians hailing from various parts of the country (p. 311).<sup>23</sup> To this one could add reports on extremely low fertility in the western part of the country.<sup>24</sup> Again Bates' solution is inadequate. Admitting that fertility seems to increase along the south-west/north-east axis of Zambia, he claims that differential fertility would not influence the regression analysis, as none of his independent variables would have a gradient in the same geographical direction (p. 311 f). My calculations show that this statement is not correct.<sup>25</sup> The Jackman index itself has a gradient along the north-east axis;  $Y_1$  tends to be more strongly negative towards the north-east, suggestive (i.e. for those who take the index seriously) of higher rates of rural exodus there.<sup>26</sup> Moreover, at least one of Bates'

<sup>22</sup> P.O. OHADIKE, *Some Demographic Measurements for Africans in Zambia*, Lusaka, 1969.

<sup>23</sup> J.C.I. MITCHELL, *An Estimate of Fertility among Africans on the Copperbelt of Northern Rhodesia*, in *Rhodes-Livingstone Journal*, 13, 1953, p. 18-29; *Id.*, *Differential Fertility amongst Urban Africans in Zambia*, in *Rhodes-Livingstone Journal*, 37, 1965, p. 1-25.

<sup>24</sup> A.J. EVANS, *The Ila V.D. Campaign*, in *Rhodes-Livingstone Journal*, 9, 1950; A. HANSEN SPRING, *Fertility, Marriage and Ritual Participation among the Luvale of North-Western Province, Zambia*, unpublished seminar paper, Institute for African Studies, University of Zambia, Lusaka, 1972; my own field data on the Nkoya of Western Province, to be published in W.M.J. VAN BINSBERGEN, *Ritual, Class and Urban-Rural Relations: The Nkoya of Zambia*, forthcoming.

<sup>25</sup> I calculated the gradients as follows. On the 1:1,500,000 map of the Republic of Zambia (Surveyor-General, Lusaka, 1969) the line Sesheke-Isoka turned out to be almost perfectly south-west/north-east. The capitals of the 28 districts featuring in Bates' main regression analysis of migration were projected orthogonally onto this line. The order of these projections from left-hand bottom to right-hand top was taken as a district's rank on the north-east axis. Per district the values of the variables were entered, and a Spearman rank-correlation was computed between each variable and district rank on the axis.

<sup>26</sup>  $N = 28$ ;  $r_s = .58$ ;  $t [df = 26] = 3.64$ , significant at the .05 level; source: JACKMAN, *op. cit.*

independent variables (and the one that scores as the most significant in his regression equation!) turned out to have a significant north-east gradient: « the number of head of cattle » per district, which tends to be higher in the south-western parts of the country.<sup>27</sup>

There are yet other reasons to reject Bates' migration analysis wholesale, even though he comes up with values of  $R^2$  as high as .71.<sup>28</sup> Two pairs of his independent variables correlate so highly that multi-collinearity alone renders the analysis meaningless: « per capita government expenditure on agriculture in the years 1963-68 » with « total per capita government expenditure » over the same period (simple  $r = .88$ ); and « cattle per capita » with « plows per capita » (simple  $r = .89$ ); all variables are measured per district.

As Bates does not give the simple correlation between  $Y_1$  and each of his independent variables, it is impossible to check his regression analysis. However, the correlation matrix between the independent variables is presented, and in view of the multi-collinearity problems arising I performed a factor analysis on it, with some interesting results. Of Bates' eleven independent variables, one had to be rejected straight-away: the district « percentage of the population aged 10-14 in 1963. » Inclusion of this variable rendered the correlation matrix non-positive definite, so that it could not be inverted.<sup>29</sup> This variable had better be excluded from the analysis; moreover, it appears as the least significant

<sup>27</sup>  $N = 28$ ;  $r_s = .41$ ;  $t [df = 26] = 2.29$ , significant at the .05 level. Source: E. WILSON, *Commercial Livestock Production*, in D.H. DAVIES (ed.), *Zambia in Maps*, London, 1971, p. 74-5. Having no access to the figures of per capita number of cattle (Bates' variable), I worked on the basis of the district totals of cattle, i.e. Bates' variable multiplied by the human population per district. District population shows no significant north-east gradient:  $N = 28$ ;  $r_s = .22$ ;  $t [df = 26] = 1.17$ , not significant at the .05 level; source: Central Statistical Office, *op. cit.*, p. B30. Measurement is such that the positive correlation coefficient indicates a slight tendency for district population to increase from south-west to north-east; therefore, even though this effect is not significant, the  $r_s$  associated with the « number of cattle per capita » gradient will be more likely to be higher, than lower, than the .58 figure found for « number of cattle per district ». Two of Bates' other independent variables turned out to have no significant north-east gradient: « percentage of people with some education » ( $N = 28$ ;  $r_s = -.03$ ;  $t [df = 26] = .13$ , not significant at the .05 level; source: Central Statistical Office, *Statistical Yearbook 1968*, Lusaka, 1969, p. 5 f); and « male/female ratio » ( $N = 28$ ;  $r_s = -.02$ ;  $t [df = 26] = -.10$ , not significant at the .1 level; source: *op. cit.*, p. 2 f). For Bates' other independent variables, I had no ready access to the raw data.

<sup>28</sup> On p. 172,  $N = 28$ ;  $R^2 = .71$ ; adjusted  $R^2 = .53$ ;  $F [df = 11; 16] = 3.49$ , significant at the .05 level.

<sup>29</sup> For a description of the method used, see: Kim JAE-ON, *Factor Analysis*, in NIE, *op. cit.*, p. 468-514. Matrix inversion problems usually arise when an independent variable is a perfect linear combination of some of the other variables used in the analysis. However, regression analysis of the rejected variable with the ten other independent variables does not warrant such a conclusion in this case, in view of the low resulting  $R^2$ . Using the method

in Bates' regression equations. Factor-analysing the remaining ten variables, a four-factor solution is found. On the fourth factor, however, only one variable (no. 4) turns out to load significantly (.78), so that the data-reducing potential of this factor is nihil. Repeating the analysis for the other three factors, I obtained the results as in table 1:

Table 1

FACTOR ANALYSIS ON INDEPENDENT VARIABLES IN BATES' MIGRATION ANALYSIS<sup>20</sup>

Variable		Three-factor solution				Four-factor solution (extract) Factor-loads
		Factor-loads			Simple correlation coefficients variable 4	
		Factor I	Factor II	Factor III		
no.	Description (unit of measurement is the district)					Factor IV
1	Percent of population with some education	.37	.43	-.06	.24	.40
2	Male/female ratio	.13	.78	-.16	.31	.28
3	Number of cattle per capita	.98	.09	.05	-.34	-.30
4	Brick rooms per capita	-.39	.44	-.08	1.00	.78
5	Percent of population in cash employment	.48	.37	-.11	-.25	-.34
6	Government expenditure on agriculture	.11	-.06	.97	-.18	-.18
7	Total government expenditure	-.00	.06	.89	-.02	.09
8	Percent of population seeking work	-.10	-.57	-.14	-.14	-.08
9	Distance to nearest town	-.26	-.74	-.11	-.23	-.11
10	Percentage of population aged 10-14	—	—	—	-.17	—
11	Number of plows per capita	.86	.26	.18	-.17	-.13

described in JAE-ON and KOHOUT, *op. cit.*, I found as the best-fitting regression equation:

$$V10 = .51(V1) - .52(V2) - .47(V4) - .25(V8) - .08(V6) \quad \dots (3)$$

where V = variable (numbered as in my table 1), and the decimal fractions are standardized regression coefficients. Of this regression equation,  $N = 28$ ;  $R^2 = .39$ ; adjusted  $R^2 = .28$ ;  $F [df = 5; 22] = 2.80$ , significant at the .05 level.

<sup>20</sup>The table shows the factor matrix after varimax rotation with Kaiser normalization, *cfr* JAE-ON, *op. cit.* High factor-loads are italicized. In addition to the three-factor solution, the simple correlation coefficients between the various independent variables and variable 4 are shown. Apart from the unity, only  $-.34$  is significant at the .05 level;  $N = 28$ ;  $t [df = 26] = 1.84$ . The last column gives an extract from the rotated factor matrix of the four-factor solution, showing that factor IV had to be replaced by variable 4.

Factor analysis indicates that Bates' variable set can be profitably reduced to three factors and one simple variable: the prevalence of *brick housing* in a district. Bates uses this variable as an operationalization of rural prosperity, but in view of the last two columns of my table 1, it appears to have a cultural as well as an economic dimension. For variable no. 4 is negatively correlated with the prevalence of cattle; economically brick housing might therefore represent an alternative investment to cattle. Bates rightly argues (p. 217) that prevalence of cattle constitutes a major precondition for successful small cash-crop farming. The cultural dimension however is indicated by the fact that education, though positively related to prevalence of cattle (cf. note 37, *infra*), also loads medium-high on factor IV. Turning to the three other factors, their identification does not pose similar difficulties. Factor I, combining the «cattle» and «plow» variables, clearly refers to a district's *potential for small cash-crop farming*. It is interesting that variable no. 5, «percentage of the population engaged in cash employment,» should have a medium-high load on this factor. Further research is required in order to assess whether this relation between cash employment and agriculture derives directly from agricultural employment, or from a systematic co-occurrence of a developed small-scale agriculture with developed non-agricultural sectors — a situation prevailing along the line of rail. Factor II combines «sex ratio» and, inversely, «distance to town», with medium-high loads on «percentage seeking work» (inversely), «brick housing», and «percentage educated». This factor attains maximal values where there are relatively many men as compared with women, where distance to town is minimal, where many people are employed, where there is plenty of brick housing and where education is above average: it simply measures the degree to which *urban-type conditions* obtain in a district. Factor III, finally, measures *government expenditure* in a district, with some extra weight being given to expenditure in agriculture.

The reduction of Bates' variable set to these four factors is not so much a point of criticism (although subsequent regression analysis with these four factors would make the results much better interpretable), but rather a suggestion as to how some of the research problems jeopardizing Bates' analysis might be solved.

A second necessary step for such a re-analysis would be to find a valid measure for the district migratory performance. This is less difficult than Bates' and Jackman's clumsy treatment suggests. On the national level, the available demographic material consists of the reports on the 1963 and 1969 census, along with some secondary analyses of this published material.<sup>31</sup> A simple

<sup>31</sup> Central Statistical Office, *Census . . .*, *op. cit.*; *idem*, *Final Report of the May/June 1963 Census of Africans*, Lusaka, 1968; Ministry of Finance, *Preliminary Reports of the May/June 1963 Census of Africans in Northern Rhodesia*.

standard approach to internal migration is the so-called « life-time migration » analysis.<sup>32</sup> The necessary raw data were collected during both censuses, and presumably the Central Statistical Office of Zambia could make them available in the future.

Let me give one final example of the way Bates abuses regression analysis so as to give illusory support to essentially unfounded hypotheses. Examining the Kasumpa villagers' economic situation, Bates arrives at a « human investment model »: peasants allegedly invest in children (i.e. in the latter's well-being, education, and affection towards their senior kinsmen), and then have these children go to town to earn money for their sponsors. With this model Bates seems capable of explaining a considerable portion of the variance on such dependent variables as (a) « number of children in town » (an index of migration per extended family); (b) « number of children employed in town » (an index of migratory success); (c) « number of children making remittances from town » (an index of the alleged pay-off of human investment in children); (d) « value of these remittances » (as (c)). Bates regresses these dependent variables with the following independent variables: « the number of a man's live children »; « their average age »; « their average education »; and « that man's present income as derived from participation in the rural economy ». But contrary to appearances, regression analysis does not confirm the human investment hypothesis at all.<sup>33</sup> In the natalistic societies of Central Africa, where every adult tries to have as many children as possible, the number and age of one's legitimate children depend not on differential individual strategies of investment but on the vicissitudes of demography and the pattern of social organization (e.g. inter-generational relations of authority and financial assistance, as factors that regulate a man's access to wives). Moreover I fail to see how, as Bates suggests, the senior kinsman's present rural-based income can be considered a direct factor in the pay-off of human investment: Bates claims that children remit more money the lower their sponsor's rural-based cash income is, but this effect is not significant.<sup>34</sup> This leaves only education as the main variable

Lusaka, 1964; Id., *Second Report of the May/June 1963 Census of Africans in Zambia*, Lusaka, 1965; G. KAY, *Social Geography of Zambia*, London (1967) 1971; DAVIES, *op. cit.*; JACKMAN, *op. cit.*; OHADIKE, *op. cit.*

<sup>32</sup> For a collection of valid and reliable measures of internal migration, cf.: M. PICOUET, *Les migrations*, Paris, 1974; and especially: NATIONS UNIES, *Méthodes de mesure de la migration interne*, Etudes démographiques, 47, New York, 1971.

<sup>33</sup> For his four equations, Bates (p. 200 f) finds  $R^2$ s ranging from .39 to .17 (with  $N = 88$ , adjusted  $R^2$  is .37 respectively .14), explaining 1/3 to 1/6 of the total variance of the dependent variables. However, my point is that only a minute portion of this explanation is actually in terms of his « human investment » hypothesis.

<sup>34</sup> On p. 191,  $N = 105$ ;  $r = -.14$ ;  $t [df = 103] = -1.40$ , not significant at the .05 level.

indicative of human investment. However, on the two measures of investment pay-off ((c) and (d)), education does not enter as a significantly contributing variable.<sup>35</sup> Bates' contention that regression analysis « suggests at least partial support » (p. 201) for his human investment hypothesis, is not tenable. My factor analysis (table 2) on the regression coefficients on which his regres-

Table 2

FACTOR ANALYSIS ON INDEPENDENT VARIABLES IN BATES' « HUMAN INVESTMENT » MODEL <sup>36</sup>

Variable no.	Description (unit of measurement is a senior male inhabitant of Kasumpa)	Two-factor solution		One-factor solution	
		Factor loads		Factor loads	Simple correlation coefficients
		Factor I	Factor II	Factor I	Variable 4
1	Number of his live children	.78	-.08	.69	-.02
2	Average age of these children	-.47	-.25	-.52	-.18
3	Average education of these children	.55	.17	.59	.15
4	His rural-based income	.06	.51	.15	1.00

sion analysis is based, suggests why, with « number of children » and « their average age » already entered into the equation, « their education » fails to add a significantly new element to the analysis. Children's average age and education load medium-high on the same factor that accounts for the number of children. Without further data involving a larger number of variables it is difficult to precisely identify this factor. The important point however is that education, instead of a sign of differential investment, turns

<sup>35</sup> In equations no. 3 and 4 (p. 200), the unstandardized regression coefficients of the education variable have associated t-values of 1.580 respectively 1.527 (Bates' figures);  $N = 105$ ;  $df = 103$ ; not significant at the .05 level.

<sup>36</sup> This table has the same structure as table 1, cfr note 30. Apart from the unity, none of the simple correlation coefficients is significant at the .05 level. That with the highest absolute value,  $-.18$ , is actually  $-.1750$  before rounding-off, and has an associated probability of .051 ( $N = 88$ ;  $df = 86$ ;  $t = -1.65$ ). The obvious time dimension of factor I ties in with Chayanov's well-known views concerning the temporal dynamics of the peasant family, in terms of the ratio of working versus consuming members; cf. B. KERBLAY, *Chayanov and the Theory of Peasantry as a Specific Type of Economy*, in: T. SHANIN (ed.), *Peasants and Peasant Societies*, Harmondsworth, 1971, p. 150-60.



out to depend to a considerable extent on a factor whose main dimension relates to demographic chance phenomena, not directly subject to human strategies. Meanwhile, the time element in this factor is obvious. In modern Zambia, the later children have been born, i.e. the younger they were when Bates did his research (= variable no. 2), the greater the chances that they could benefit from the post-independence expansion of both the medical facilities (hence, the higher would be their survival rate = variable no. 1), and educational facilities (hence, the better educated they would be = variable no. 3). Bates' educational data appear to depend largely on the place a family occupies on the time scale, as measurable by the father's age, the year of first marriage, etc.

Developing his human investment hypothesis on this shaky basis, Bates goes on to claim that human investment in juniors, mainly through education, and in the hope that they will turn into profitable migrants, has an alternative in the investment in cattle. Therefore in the major cattle areas investment in education (and hence, presumably, the average educational level) should be relatively low, and so should be the level of out-migration. All this however is at variance with the data presented elsewhere in the book.<sup>37</sup>

In this section, more has been involved than irritation at a researcher's incompetence. Sophisticated quantitative methods are rapidly winning ground in the social sciences; yet the number of social scientists, including Africanists, who can judge a colleague's quantitative performance, is limited. Criticism tends to be levelled against verbal conclusions or ideological biases, rather than against data and their handling. The latter type of criticism takes up considerable printing space, as is manifest here. To many who are not quantitatively-minded, formulas and tables are sufficiently awe-inspiring to silence or divert their criticism (cf. note 64, *infra*). Thus quantitative « results » often lead a life of their own within the literature, unchecked but yet accredited with some value. Finally, analyses of modern African society are read by the people they deal with. Politicians and bureaucrats may glean scholarly works to find solutions for their problems and superior legitimation for their policies. In such a situation it is frivolous to propound such statements as: « if one district had a percentage point more

<sup>37</sup> Bates found a significant positive correlation between « cattle per capita » and « percentage with some school education », per district (p. 173):  $N = 28$ ;  $r = .46$ ;  $t [df = 26] = 2.66$ , significant at the .05 level. Even the Jackman index, which Bates after all considers valid, somehow suggests a positive, though non-significant, relation between « out-migration » and « cattle per capita », per district (p. 166):  $N = 42$ ;  $r = -.18$ ;  $t [df = 40] = -1.16$ , not significant at the .05 level, the associated probability being .13. The index is lowest when the phenomenon it is supposed to measure (district out-migration) is highest; therefore the negative sign of the correlation coefficient suggests a positive relation.

ANC voters than another in 1964, it received roughly 7 kwacha per capita more in government investments over the next five-year period » (p. 127)<sup>28</sup>; and « expenditures on rural health facilities were found to decrease the rates of rural out-migration significantly (...) Nonetheless (...) the government would have to spend a great deal to produce a moderate decline in rural out-migration (1 kwacha per capita in 1963-68 to secure 3.4 percent less out-migration) » (p. 314).<sup>29</sup>

These are deceptively simple statements relating to key issues in modern Zambian society. They could easily be turned into political slogans or public-health policy. The point is however that they are pseudo-scientific artefacts, without roots in the reality they attempt to comprehend.

Now, having paid tribute to Bacon, let us turn to Occam.

#### 4. Occam and the Limits of Income Maximalization

According to Bates, the rural Zambians have in mainly three ways responded to the private markets of labour and produce and to government substitutes of these markets: through migration, cash-crop farming, and political protest. The major claim of the book is that these three responses all hinge on income maximalization. This « radical simplification » (p. 275) of the problem of the transformation of Zambian society is offered as an alternative to rival approaches. First it has to do away with « romanticism »: the belief that industry is evil; that rural behaviour is « determined by cultural beliefs, the forces of tradition, or religious values »; or that villagers are « too lazy, irrational, or unmotivated to take advantage of expanding economic opportunities » (p. 2). Further, and more specifically with relation to the peasants' political responses, Bates views rural politics in Zambia as the « actions of economic men vis-à-vis the state » (p. 258), denouncing the four major rival approaches by which the contemporary theoretical literature seeks to explain similar phenomena (see below, section 5). If income maximalization can do all this, we had better acclaim Occam as the founding father of modern African Studies.

Even apart from his unfortunate quantitative excursions, Bates does not succeed in substantiating his claims. To a limited extent

<sup>28</sup> Reference is to equation no. 1, cf. note 11.  $R^2 = .11$ . Assuming that  $N = 40$ , adjusted  $R^2 = .11$ ;  $F(df = 1; 38) = 4.61$ , significant at the .05 level. 1 Kwacha (K) was about B.Fr. 60. The very low value of  $R^2$  shows that the scatter around the K 7 figure is enormous; the regression equation, containing only one independent variable (« percent ANC vote, per district ») leaves as much as 89 % of the variance unexplained.

<sup>29</sup> Cfr R.H. BATES and B.W. BENNETT, *op. cit.*, p. 558 f.  $N = 28$ ;  $R^2 = .75$ ; adjusted  $R^2 = .68$ , and  $F(df = 7; 20) = 8.72$ , significant at the .05 level. The misleading point here is not the unexplained variance of the dependent variable, but the fact that this variable is not even remotely valid as a measurement of district migratory performance.

he realizes this, and footnotes are to provide such qualifications as the main text itself lacks. As a result the book almost consists of two separate arguments, one elegantly Occamist in bold print, and one hesitant and unconvincing in small print. Needless to say I like the latter better, and would have liked to see much more of it. However, an author deserves to be judged on the basis of his main argument.

Also on the descriptive level Bates goes in fact far beyond his naive theory. This is particularly clear in his analysis of migration. Following such liberal economists as Elkan and more recently Harris and Todaro,<sup>40</sup> Bates views migration entirely as an individual act by which a peasant, having estimated his expected income in town and in the village, chooses that side of the urban-rural divide where his estimation takes maximal values. On this basis Bates attempts to explain the preponderance, in rural out-migration during the colonial era, of male young adults (as against adolescents, elderly men, and women), and of the better educated. Following an argument that has been standard in Central-African studies since the writings of Gluckman, Van Velsen and Watson,<sup>41</sup> he attributes the urban migrants' continued interest in their rural kinsmen (to wit: remittances, visits, and final rural retirement) to the small size of the informal urban sector of income and housing, to urban insecurity and the lack of urban retirement opportunities prior to Independence. In order to secure a social foothold after retirement from urban employment, the migrant continued to invest in rural relationships and in his access to rural land. So far, income maximization seems to hold out as an explanation. However, problems begin when Bates attempts to account for such typical colonial migration patterns as high labour turn-over and family separation. It has long been recognized<sup>42</sup> that the liberal-

<sup>40</sup> W. ELKAN, *Migrants and Proletarians*, London, 1960; M.P. TODARO, *A Model of Labor Migration and Urban Unemployment in Less Developed Countries*, in *American Economic Review*, 59, 1, 1969, p. 138-48; J.R. HARRIS and M.P. TODARO, *Wages, Industrial Employment, and Labour Productivity*, in *Eastern Africa Economic Review*, 1, 1, 1969, p. 29-64.

<sup>41</sup> M. GLUCKMAN, *Tribalism in Modern British Central Africa*, in *Cahiers d'études africaines*, 1, 1, 1960, p. 55-70; Id., *Anthropological Problems Arising from the African Industrial Revolution*, in A. SOUTHWALL (ed.), *Social Change in Modern Africa*, London, 1961, p. 67-82; J. VAN VELSEN, *Labour Migration as a Positive Factor in the Continuity of Tonga Tribal Society*, in A. SOUTHWALL, *op. cit.*, p. 230-41; Id., *Some Methodological Problems in the Study of Labour Migration*, in: K. LITTLE (ed.), *Urbanization in African Social Change*, Edinburgh, 1963, p. 34-42; W. WATSON, *Tribal Cohesion in a Money Economy*, Manchester, 1958.

<sup>42</sup> G.K. GARBETT & B. KAPPERER, *Theoretical Orientations in the Study of Labour Migration*, in *The New Atlantis*, 2, 1, p. 179-97; G.K. GARBETT, *Circulatory Migration in Rhodesia*, in PARKIN, *op. cit.*, p. 113-25, especially p. 117 f.; J.C. MITCHELL, *Labour Migration in Africa South of the Sahara*, in *Bulletin of the Inter-African Labour Institute*, 6, 1, p. 12-46; Id., *Structural Plurality, Urbanisation and Labour Circulation in Southern Rhodesia*, in J.A. JACKSON (ed.), *Migration*, Cambridge, 1970.

economist approach to African migration fails to account for its circular nature, as well as for its variability. For apart from such fairly unique conditions as the Great Depression (which made a very severe impact on Central-African labour migration in 1929-34) one would not expect the rural-urban income differential, as perceived by an «able-bodied man» in his twenties or thirties, to dramatically decline overnight. Yet these men would frequently exchange their considerable urban income for a much lower rural income, only to return to town after many months, if at all. And while most rural dwellers would temporarily join the urban labour market, one would often have to look not for economic (in the liberal-economist sense), but for social and local-political factors in the evolving social process of the home area, to explain why certain individuals would migrate to town at a particular time, when others would stay behind.<sup>43</sup> Bates (p. 47) rejects Mitchell's useful distinction between economic and socio-political factors — presumably because, in claiming an explanation that lies outside simple liberal-economist reasoning, it has a «romanticist» ring. But then, Bates himself introduces such non-economic notions in his discussion of family separation: «Were the family to live entirely in the urban areas, the family head's annual share of his income would be £3.6<sup>44</sup>; were he and his family to remain in the rural sector, he could then expect his income to be at most £4. But were he to forsake his family financially and live alone in town, he could keep for himself the full average wage of £18. (...) The migrants were forced to choose between *family integrity* and economic gain. Most devised a *painful* compromise — one that enabled them to take advantage of the higher earnings to be got in the city while maintaining their family ties. The compromise took the form of circular migration» (p. 60; *my italics*). Not the cynicism, but the romanticism of this argument is important here. By taking recourse to a postulated value of family integrity, which is unrelated to individual maximalization strategies, Bates implicitly admits that income maximalization alone cannot account for the facts; yet he does not broaden his theoretical perspective accordingly.<sup>45</sup>

<sup>43</sup> This distinction runs through many of Mitchell's numerous publications on labour migration, some of which have been cited above.

<sup>44</sup> I.e. his average urban income of £18 shared with an average of four dependents.

<sup>45</sup> Bates' argument is unconvincing for yet another reason. From it would follow that among the married men, who allegedly feel the rural pull of family integrity, labour turn-over would be higher than among the unmarried men; both categories would enjoy, to a similar extent, what Bates suggests to be urban benefits — somewhat of a misnomer, considering conditions of housing and work, colour-bar regulations, assaulted identity, etc., as experienced in the towns during the colonial era. However, the figures Bates quotes for a Zambian copper-mine in 1930, show that the married men stayed in employment for an average of 20.3 months, the unmarried men for only 9.8 months (p. 315).

It is not the only occasion in this book that the family serves as a *deus ex machina*. Bates' national-level discussion of migration in post-independence Zambia leads to a discussion of the same topic focussed on Kasumba. Developing his « human investment » hypothesis, Bates claims that migration becomes a form of income enhancement for other people than the migrant himself: « ... Parents seek to gain returns from children by having them migrate » (p. 197). In a way that Bates might have elaborated upon, here we seem to have a mirror image of the urban migrant investing in rural ties so as to safeguard his rural retirement. However, at this stage Bates has already told us (p. 179 f) that in post-independence Zambia urban retirement opportunities have greatly increased, due to the expansion of the informal urban sector of housing and income. So why are these children sending money back home? Surely not just to maximize their future incomes (i.e. their chances of rural retirement), but probably for reasons whose elucidation is the proper task of anthropology: these reasons may well turn out, at least in the first analysis, to relate to « cultural beliefs, the forces of tradition, or religious values » (cf p. 2). How else could the senior generation take the risk of investing in juniors, if only on the basis of reasonable certainty that the latter, as migrants, would honour their claims in future, even if these migrants would be increasingly unlikely to return and retire in their villagers? What powers do the elders have, first to have their juniors migrate, secondly to have them make remittances? What enforces these powers, and what counteracts them? What is obviously needed here is a theory of the viability of family-based social control across the urban-rural divide. The first attempts at such a theory are now coming up.<sup>46</sup> Therefore I do not blame Bates, a political scientist, for not solving the immense theoretical difficulties involved here. In fact he makes an attempt at construction of such a theory, on the basis of the writings of Fortes and Sahlins. My objection however is that he smuggles into his case study much more subtle interpretations, without working them into his main theoretical argument.

Significantly, while Bates does make the connexion between post-independence migration and the rural kinship system, he does not back up his claims with an extensive case analysis<sup>47</sup> of the

<sup>46</sup> J. GUGLER, *Life in a Dual System*, in *Cahiers d'études africaines*, 11, 1971, p. 400-21; ID., *Migration and Ethnicity in Sub-Saharan Africa*, in H.I. SAFA and B.M. DU TOIT (eds), *Migration and Development*, The Hague, 1975, p. 295-309; T.A. WEISNER, *One Family - Two Households*, paper presented at the Universities' Social Science Conference, Nairobi, 1969; W.M.J. VAN BINSBERGEN, *Ritual, Class and Urban-Rural Relations*, in *Cultures et développement*, 8, 2, 1976, p. 195-218.

<sup>47</sup> In Central Africa, modern standards for such an analysis have been set by: V.W. TURNER, *Schism and Continuity in an African Society*, Manchester, 1957; J. VAN VELSEN, *The Politics of Kinship*, Manchester, 1964; ID., *The Extended-*

actual structure and dynamics of kinship in Kasumpa; on this point his evidence is almost exclusively quantitative, and, I am afraid, superficial. Judging on the basis of both the massive literature on Central-African village society, and my own field-work in that setting, I get the impression that Bates has failed to grasp the social process of this rural community. We hear how its individual members « respond to industrialization » by means of migration, cash-crop farming, co-operatives and political action, but we are hardly introduced to the main internal structural features of the community within which these individual responses arise. In addition to these responses to the outside world we need to have such fundamental data as how production and reproduction are organized (i.e. the rural economy outside cash-crop farming, the kinship system, the marriage system, and their interrelations). Without such information, inter-generational relations of power and authority (on which Bates bases his idea of human investment) remain suspended in the air. Only insight in the local social process can throw light upon the continuing competition for historical leadership roles (village headmanship), the antagonism versus the former Lunda overlords, the ways in which these historical political concerns intersect with political action within the modern party framework, and the significance of sorcery accusations that, in the context of life-cycle crises (illness, death), tend to bring out the underlying local-political divisions and alliances.<sup>48</sup> Bates claims that « anthropological methods suggested the basic hypotheses for [his] research » (p. 271). But conducting interviews in a village setting does not make one's work anthropological. I am not saying that anthropology possesses some unique secret without which no valid statement can be made about society. Yet, failing to apply the exceptionally rich Central-African anthropological tradition in his case study, Bates' understanding of Kasumpa stops short at the outskirts of the village.

A number of further points must be raised at this juncture. I have already argued that the data do not bear out the human investment hypothesis, nor the latter's extension to investment in cattle. More important from a theoretical point of view is the implicit shift in Bates' approach to the place of the migrant and his family. Discussing pre-independence migration, emphasis is laid on the individual migrant, who allegedly negotiates between a maximal urban income, and his concern for family integrity. The migrant is viewed as fairly senior himself, with dependents (a

*Case Method and Situational Analysis*, in A.L. EPSTEIN (ed.), *The Craft of Social Anthropology*, Manchester, 1967, p. 129-49.

<sup>48</sup> Cfr I. CUNNINGSON, *Headmanship and the Ritual of Luapula Villages*, in *Africa*, 26, 1, 1956, p. 2-19; ID., *The Luapula Peoples of Northern Rhodesia*, Manchester, 1959; M. GLUCKMAN, *Custom and Conflict in Africa*, Oxford, 1955; M.G. MARWICK, *Sorcery in Its Social Setting*, Manchester, 1965; V. TURNER, *op. cit.*; V. VAN VELSEN, *Politics*, *op. cit.*

wife, an average of three children) that allegedly make claim to his presence as well as to part of his income. The unit of reference is the nuclear family, and the migrant is its head. By contrast, in the analysis of the post-independence migration emphasis is laid on the strategies of senior relatives near retirement age; the migrants are now adult junior kinsmen who, while involved in the urban labour market, still respond to the claims of their rural seniors; the unit of analysis has become the extended family. Are post-independence migrants on the average younger than their colonial predecessors? Has the extended family grown in importance over the years, despite the fact that increasing incorporation into the capitalist mode of production, with its atomization of labour participation and wages, tends to lead to a breakdown of the extended family? Or is it rather that the model of the nuclear family, as a dominant social formation typical of North-Atlantic society under capitalism, has been projected (not so much by Bates but by the authors he quotes) into the colonial Zambian migration data, irrespective of the actual kinship structures in which the migrants of that period were involved? The quantitative data available on migration in the colonial era<sup>49</sup> derive from urban surveys that seem to have taken for granted that, given the context of an urban capitalist system, individuals or at best their nuclear families of procreation constitute valid common-sense units of analysis. These studies hardly consider the enduring social and economic relationships, both rural and urban, that surround these units and partly determine the latter's social behaviour. The problem of the imposition of categories derived from North-Atlantic society is a well-known one in surveys in the Third World.<sup>50</sup> The problem of which type of kingroup, located where, prevails in which social situation is crucial in the study of urban-rural migration. We cannot just, in an off-hand manner, impose, and shift, analytical distinctions, in this domain of urban-rural relations. For the very essence of the social processes involved seems to be that participants define, maintain and cross boundaries: between geographically distinct settings, but particularly between modes of production, and between the systems of authority and symbolic orders which both enshrine these modes of production and derive from them.<sup>51</sup>

<sup>49</sup> D.G. BETTISON, *Numerical Data on African Dwellers in Lusaka, Northern Rhodesia*, Lusaka, 1959; M. McCULLOCH, *A Social Survey of the African Population of Livingstone*, Manchester, 1956; J.C. MITCHELL, *African Urbanization in Ndola and Luanshya*, Lusaka, 1954; G. WILSON, *An Essay on the Economics of Detribalization in Northern Rhodesia*, I and II, (1941) 1968, Manchester.

<sup>50</sup> Cf. E. LEACH, *An Anthropologist's Reflexions on a Social Survey*, in D.G. JONGMANS & P.W.C. GLYKIND (eds), *Anthropologists in the Field*, Assen, 1967, p. 75-88.

<sup>51</sup> Cf. Cl. MEILLASSOUX, *Femmes, greniers et capitaux*, Paris, 1975, and references cited there; P.Ph. REY, *Colonialisme, néo-colonialisme et transition au*

Anthropologists have often been guilty of isolating kinship-dominated social processes, thus divorcing the dynamics of co-residence, authority and morality from the material basis of rural society: production and reproduction.

A modern approach to migration in Zambia would not be satisfied with exploring the extended family behind the individual migrant, disentangling the politics of kinship; it would attempt to account for the very existence of migration in the context of processes of rural transformation through which pre-capitalist modes of production (particularly the domestic one hinging on kinship) have responded to the encroachment of and incorporation in capitalism. Migration, as in Bates' approach, could thus be coupled to the study of rural development or underdevelopment — but then on the basis of a structural analysis instead of atomistic individuals. Examples of such an approach have been available for years. There is Arrighi's work on Zimbabwe<sup>52</sup>; Bates might have assessed the parallels and differences with the Zambian situation, instead of merely citing Arrighi's work without taking up the challenge such work obviously contains to a liberal-economist analysis. There is, moreover, Amin's work on West-African migration, which offers a scalding, comprehensive critique of the liberal-economist approach to migration and rural development.<sup>53</sup>

Finally, one might somewhat qualify Bates' optimistic views as to the dramatic growth of urban opportunities since Independence. Surely, the great volume of revenue available to the Zambian government in the mid-1960's<sup>54</sup> led to the expansion of the urban formal sector; industry and government attracted large numbers of new employees. However, this expansion called particularly for skilled, educated workers, of a standard which the average rural migrant would not readily meet. A weakness of Bates' national-level migration analysis is therefore that his education variable, distinguishing only between « no education » and « some education », is too crudely measured to assess an individual's opportunities in the urban formal sector. For there education only begins to count at a level of upper-primary, and particularly secondary education. The problem of unemployed primary-school leavers is too real in Zambia, as elsewhere in the modern world, to consider education, irrespective of its level, as a sure entry to

capitalisme, Paris, 1971; Id., (ed.), *Capitalisme négrier*, Paris, 1976; J.-L. AMSELLE, (ed.), *Les migrations africaines*, Paris, 1976.

<sup>52</sup> G. ARRIGHI, *Labour Supplies in Historical Perspective*, in G. ARRIGHI & J.S. SAUL, *Essays on the Political Economy of Africa*, New York, 1973, p. 180-234; and his other contributions to this book.

<sup>53</sup> S. AMIN, *Modern Migrations in Western Africa*, in Id. (ed.), *Modern Migrations in Western Africa*, London, 1974, p. 65-124.

<sup>54</sup> A situation which has since dramatically changed; cfr J. MARKAKIS & R.L. CURRY, *The Global Economy's Impact on Recent Budgetary Policies in Zambia*, in *Journal of African Studies*, 3, 4, 1976-77, p. 403 f.



urban employment.<sup>55</sup> Still other factors are at work to make the urban formal sector less open than is often assumed. The decreased labour turn-over in recent years<sup>56</sup> means that those who have secured urban jobs, are anxious to keep them, instead of making them available to newcomers. In the mining industry, at least, the rate of expansion of the labour force is not sufficient to curb this effect,<sup>57</sup> and a similar pattern might prevail in other branches of the Zambian economy. Moreover there is a certain amount of ethnic or regional control over access to urban markets of employment, both in the formal and in the informal sector.<sup>58</sup> A case in point is the preponderance, in a sample I studied in Lusaka, 1973, of lowly-educated Nyanja-speakers in the informal sector: hawkers, marketeers, etc. A well-established ethnic accommodation structure enables these migrants to get launched in the informal sector; entry to the formal sector is more difficult for them due to their lack of formal education. In this respect the Nyanja-speakers, forming an ethnic majority in Lusaka, contrast sharply with a small ethnic minority like the Nkoya, who never got much of a foothold in the informal sector and, with average levels of formal education only slightly higher than the Nyanja-speakers, have similar difficulty in entering the formal sector. As a result, the Nkoya in Lusaka have only limited opportunities of individual stabilization as townsmen. Instead, they are forced to circulate between them such limited resources as they command; they maintain intensive network-relationships as well as collective actions (puberty ceremonies, cults of affliction, informal courts of law, funerals) to pattern this circulation, to strengthen intra-group ties, and to exert social control over the members of this ethnic group. But even so the group proves increasingly unable to accommodate new arrivals from the rural home, or those townsmen who have become jobless. As a result, a steady urban-rural return migration approximately balances the rural-urban exodus among the Nkoya.<sup>59</sup>

<sup>55</sup> For Zambia, cfr T.C. COOMBE & C. ANGI, *The Primary School Leaver Crisis and Youth Programmes in Zambia*, Lusaka, 1969; A.J.F. SIMMANCE, *Urbanization in Zambia*, New York, 1972, p. 24 f.

<sup>56</sup> Bates reports (p. 176) that at the Zambian copper-mines, annual labour turn-over dropped from 69% in 1950 to 8% in 1965.

<sup>57</sup> Although fluctuations occurred in the years between, the 1967 figure of 42,821 employees in this sector was almost identical to the 1957 figure of 42,489; Central Statistical Office, *Yearbook*, op. cit., p. 59.

<sup>58</sup> Perhaps because the point is so obvious, it is implied, rather than explicitly stated, in the Zambian studies dealing with kinship and network relations in town: e.g. J.C. MITCHELL (ed.), *Social Networks in Urban Situations*, Manchester, 1969 (especially the contributions by Epstein, Boswell and Harries-Jones); A.L. EPSTEIN, *Politics in an Urban African Community*, Manchester, 1958, especially ch. vii; HARRIES-JONES, op. cit. A clear case however is KAPPERER, op. cit., p. 86 f. which deals with the significance of kinship and ethnic ties in finding employment in the Zambian town of Kabwe.

<sup>59</sup> Cfr VAN BINSBERGEN, op. cit., forthcoming. For a stimulating general dis-

Thus the enduring social relationships that surround the migrant at both ends of the urban-rural divide, and the differential distribution of strategic resources between regional and ethnic groups, help us to understand migration. The liberal-economist approach to migration assumes a totally open urban labour market, ready to receive every migrant who as a result of his free and rational choice, enters the marketplace. But on the contrary, the migrant is caught in a complex structure whose sociological, economic and political outlines we are only beginning to perceive, but whose most conspicuous constraints make analysis in terms of individual income maximization unrealistic. Once again, Bates is not entirely blind to this fact. At least, the reader is surprised to suddenly come across a category of villagers who are said to be « too disadvantaged to escape » [through rural-urban migration — WVB] (p. 254) — a point that, in its departure from the free market model (for some obviously cannot even enter the market) does not tie in with the income maximalization approach. Probably this is the reason why this point is not elaborated upon by the author.

Bates' methodological individualism centring on income maximization decidedly fails to account for urban-rural migration. Without revising his central thesis, Bates is yet compelled to invoke additional explanations, particularly those based on the structure and functioning of the family. The place is lacking to examine in detail his treatment of the two other main rural responses: cash-crop farming and politics. However, there similar criticism can be made. If the enhancement of individual income is so paramount a concern, what to do with Eastern Province farmers who stay put in their villages even though « they could have done better, given the level of their skills, in wage employment » (p. 309)? Or with Luapula farmers who, failing to make a profit on maize farming for the national market, yet do not turn to horticultural production for the local market, despite the local demand from nearby schools, a hospital, and the district centre (p. 308)? Surely we need a more penetrating analysis here than Bates' minimal theory can provide. Even more limited seems Bates' approach to Zambia's recent political history in terms of individual income enhancement. In his view the desire for material betterment was at the root of the struggle for independence.<sup>60</sup> Yet the minor reforms of local taxation, net-size regulations for fishermen, hawkers' licenses, etc., as advocated by nationalists prior to independence, or the expectation of employment in the public sector as a price for political activism, hardly seem to have formed the

discussion of this and related issues, cf.: J.C. BREMAN, *Een dualistisch arbeidsbestel? Een kritische beschouwing van het begrip « de informele sector »*, Rotterdam, 1976, especially ch. 2.

<sup>60</sup> Cf. HALL, *op. cit.*; B.S. KRISHNAMURTY, *Chachacha*, Lusaka, 1972; MACPHERSON, *op. cit.*; D.C. MULFORD, *Zambia: The Politics of Independence 1957-1964*, London, 1967; ROTBERG, *op. cit.*

main mobilization factor in Zambian nationalism. The history of ANC on the Copperbelt during the 1950's was not one of ostentatious and unconditional support for the material demands of the mineworkers' unions.<sup>61</sup> Nor can the ANC action against infuriating racial discrimination in the retail trade be understood as an attempt to get better value for African money! In this context, the weakness of Bates' « radical simplification » is particularly apparent from his emphasis (p. 77 f) on the alleged White threat to African rural land off the line of rail, in Zambia during the Central-African Federation (1953-63). Rumours concerning such threats are cited, but not actual cases. The mobilizing effects of such rumours seem to have derived, not, as Bates views it, from an actual assault on the economic basis of rural life and on the rural retirement opportunities of urban dwellers — but from the symbolic and ritual value of land as a cornerstone of individual and communal identity, within a social setting where, due to the persistence of a precapitalist mode of production (including the communal holding of land, as the major means of production), land had not yet become a commodity.

Similar problems of interpretation arise concerning the political responses in the post-independence period. At the level of the subjective self-perception of his informants, Bates' emphasis on income enhancement may be rather true to life — but then, these informants are not social scientists, and their self-perception is determined by the very structures we are trying to identify and understand. At any rate, Bates' data clearly show that material well-being plays an important part in the world-view of the Kasumpa villagers, and in their remonstrations vis-à-vis government officials. Yet there is unequivocal evidence of the villagers' strong concerns outside the domain of income enhancement. Thus their petitions to government agents, as quoted by Bates, do not just emphasize income opportunities through mines, agricultural schemes, the establishment of a market, agricultural advice, etc. The villagers also clamour for the improvement of such community amenities as the well and the school; they point out health threats that confront their children, and voice their concern about current conditions in ways that clearly derive from non-economic communal and moral values: « see how our villages dwindle »; « do not consider us lazy »; « do not force us to become criminals . . . » (p. 213f).

Material betterment alone is as sterile an explanation of the transformation of Zambian society, as communal and moral values alone. Material betterment for what? Communal and moral values

<sup>61</sup> The evolution of the relationship between the unions, ANC, and later UNIP, is traced in: Bates' own book *Unions, Parties and Political Development*, New Haven and London, 1971; E.L. BERGER, *Labour, Race and Colonial Rule*, Oxford, 1974; EPSTEIN, *op. cit.*; HARRIS-JONES, *op. cit.*

on what material basis? Occam's Razor cuts too thinly, and a better theory than Bates', applied in a much more consistent manner, is urgently needed.

### 5. Conclusion: Towards an Alternative

Far from providing the unique insight by which all the various aspects of the transformation of Zambian society can be linked in one masterly argument, Bates' methodological individualism, and particularly his fixation on income maximization, denies him any real understanding of this transformation.

It seems not exaggerated to claim that the basis of his argument lies not in the facts concerning modern Zambian society, but in an ideological block on his part. His belief in the redeeming qualities of free market forces and in the viability of the atomistic human individual as the ultimate unit of social analysis are for instance manifest in his interpretation of the failure of the Kasumpa cooperatives. Having described in vivid detail how the farming cooperatives failed due to the enormous dependence of local farmers upon outside factors (produce prices, loans, marketing and supply agencies — in short, their encapsulation in outside structures of domination and expropriation), he gives as his final conclusion merely that « they failed because they failed to serve the financial interests of the villagers » (p. 143). With the evidence of wider structural implications within reach, Economic Man is yet to remain the last word! Alternatively, the building cooperative, though « most had withdrawn from it » (p. 144) receives a more favourable assessment; Bates writes that it could survive because « it took refuge in the private market forces in Luapula (...). It appears that a key element in the continued functioning (...) was the ability of the officers to establish de facto private rights over collective property [notably by paying themselves excess salaries, and abusing the cooperative's lorry for private, and extremely profitable, transport runs to the distant urban areas — WVB] (...) That success [sic] was achieved only when private interests eroded the collective constitution of the enterprise suggests the basic weakness of the cooperative form of production » (p. 145).

Thus what could have been a masterly study degenerates into an ideological exercise. Communal values, principles that derive from and underpin modes of production preceding capitalism, are denied or distorted under the impact of Bates' projection of the capitalist ideology. Capitalism, as giving rise to the individualist atomization of economic life, is not recognised by Bates as but one particular, historical mode of production, but instead is taken as the universal standard of human action (hence his emphasis on individual actors maximalizing their incomes).

Even though the chapters in his argument follow a rough chronological order, his method is essentially a-historical. For

it can only deal with actors that perceive, estimate and act within an already well-established social field. Rules and initial conditions appear as input variables in the social processes that Bates seeks to understand, but in reality, of course, they are largely the dialectical outcomes of these processes. Let me give an example. Bates' political analysis can be summed up by the following statement: «... for those rural dwellers for whom exit is not a viable option, political protest can serve as an alternative — a way of compelling the state to divert the wealth of the cities so that villagers may benefit from the opportunities created by the growth of industrialization» (p. 255).

However obvious this may sound, the rational strategy outlined here requires that a number of conditions are met: peasants must have reached a stage where they subjectively accept the existence and particularly the legitimacy of the modern state; they must be prepared, and be able, to pursue their ends within the framework set by the state-dominated formal political institutions of the country, rather than in some other manner; and they must be sufficiently important for the state, e.g. as voters or as influences on national or international public opinion, to force the state to take their demands to heart. From Bates' description it is clear that in the case of Kasumpa these conditions have been met. But little, if anything, do we hear of the historical processes that led to this situation. Let us not forget that all three conditions (whose satisfaction Bates somehow presents as timeless and universal) obtained *nowhere* in Central Africa only eighty years ago! The outcome Bates describes (the contemporary rural political responses in Kasumpa) is by no means the only possible outcome. In Zambia, the spate of religious innovation (e.g. African Watchtower, or the very large Lumpa church) constituted major peasant responses outside the political channels. A fundamental dimension of these movements is their rejection of the authority of the state, and their withdrawal from modern political institutions. Moreover, the pattern of regional inequalities in Zambia offers examples of areas (e.g. the Nkoya home area and surrounding areas in the Western and North-Western Provinces) whose inhabitants' claims obviously make less impact on government policy concerning the allocation of public funds.

Elsewhere<sup>62</sup> I have attempted to study these alternative responses (religious movements and political withdrawal), emphasizing their significance for our understanding of modern Zambia in terms of the rural population's incorporation in the state-dominated capitalist mode of production, in other words: the growth of a peasant class that is increasingly dependent upon and manipulated by the centre. Why do certain groups in the country

<sup>62</sup> W.M.J. VAN BINSBERGEN, *Religious Innovation and Political Conflict*, *op. cit.*

(e.g. Kasumpa villagers) opt for the formal political arena, and partially succeed there, while others pursue religious idoms or withdraw from confrontation with supra-local agents altogether? Before we can *take for granted* the resulting structures of political domination and economic expropriation (in Bates' terms: the rules and initial conditions that define the various markets and their government substitutes), and explain the individual actors' behaviour within them, we need to study the dialectical processes in the course of which imperialist capitalism produced these contemporary structures in Zambia, in confrontation with a considerable variety of local pre-capitalist modes of production (ranging from isolated groups pursuing the domestic mode of production, to very complex and extensive states based on trade and tribute). A future study along such lines might be properly claimed to « account for the transformation of Zambian society. » Far from emphasizing individual attempts at income maximalization (which in itself presupposes actors already completely steeped in the capitalist mode of production), such a study might consider the various social reconstruction movements (from religious movements to the struggle for independence) as forms of class struggle, aimed at collectively countering such alienation (both material and symbolical) as resulted from the expansion of capitalism<sup>63</sup>; cash-crop farming, migration, and participation within the formal political system of Zambia might then be interpreted as different forms of increasing incorporation of people and local communities into capitalism. An alternative to Bates would highlight the partial destruction of pre-capitalist modes of production under the impact of imperialist capitalism; the alienation of land around the line of rail, the direct exploitation of local Africans and migrant labourers within the capitalist structures that arose on that land, and the indirect exploitation of more distant rural communities whose adult male labour force was tapped without any contribution being made to the maintenance and reproduction of such labour; the growth of a colour-based class structure in the colonial era; the increasing inequality between town and country after the attainment of territorial independence; the growing dependence of peasant farmers upon the centre; and the emergence of a consumption-orientated urban bourgeoisie which, with the aid of expatriate manpower, ever increases its control over the country's urban and rural economy — partly to surrender this control again to international powers.

Such a programme calls not only for a new, and properly historical, study of national-level data, but also for a much closer look at Luapula village society. In addition to describing its contemporary economic and social internal structure, we must trace how local modes of production have been affected, first by in-

<sup>63</sup> *Op. cit.*, p. 107 f.

digenuous state formation in the last few centuries preceding colonial rule, then by increasing incorporation in capitalism and the colonial and post-colonial state. What crucial transformations occurred at the local rural level: in the allocation and the use of land; the pattern of agriculture, hunting, fishing and collecting; the relations between sexes and generations in which, in this kin-organized society, the basic relations of production are enshrined? Without these questions being asked and at least a tentative answer being given, any analysis of migration, cash-crop farming, the waxing and waning of cooperatives and the political responses of villagers, is bound to fail.

A further study of Kasumpa, or some such Zambian community, will immediately force us to reconsider the four rival interpretations of the transformation of Zambian society (more specifically its political aspect) which Bates now rejects in favour of his own approach: rural decline springing from the confrontation of pre-existing modes of production with capitalism; rural class struggle; the clash between on the one hand individualisms as engendered or intensified by capitalism, and on the other communal values pertaining to pre-capitalist modes of production; and finally the approach that sees in the formation of a peasantry, and the class struggles and class alliances in this process, one of the crucial aspects of contemporary Africa. These approaches (which in my present reformulation turn out to be very closely connected) are likely to contain the key that Bates sought in vain.

Only on the last page but one of his main text does Bates hint at the potential of a class approach to the Zambian data (albeit in the mystifying form of stratification) — immediately to lash out at the « Maoist » theory of the peasant class, of which he offers the typical mechanical, un-dialectical caricature. However, even such a caricature might have been preferable, as a framework, to the methodological and theoretical muddle with which Bates now claims to account for one of the most significant processes of transformation in modern Africa.

If the social science of Africa is to have any meaning beyond the enhancement of the individual incomes of us Africanists (to paraphrase Bates), this meaning should lie in our attempts to interpret these processes with methodological and theoretical tools that are more than mere projections of our own economic position. Bates' book and approach belong to a widespread pattern of scholarly production. Many Africanists (including Bates and myself) are relatively affluent scientific entrepreneurs who compete in an international professional market, and who are largely unheeding of the processes of domination and expropriation to which we are ourselves subjected, within our state system and capitalist economy. In such a situation the temptation is great to project the make-up of our own life-world into that of our African

subjects of research. However, we owe them something better than that. Our social science could conceal and thus reinforce the structure of their predicament; the best way of doing so is by building the premises of capitalism into our analysis, thus making the crucial problems invisible. It is in the hope, however, that social science has something more substantial and less ethnocentric to offer, that this review article has been written. Meanwhile I consider it unfortunate that the conventions of academic life impose, for such an exercise, the form of an aggressive display of intellectual competition. My aim has not been to attack a colleague, but to show why a book does not solve the fundamental problems that its author has had the vision and courage to confront. In this respect Bates' book is an inspiring work of scholarship<sup>64</sup>; without it, the present inventory of problems and tentative solutions could not have been written.

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<sup>64</sup> I do not agree with A. ROBERTS' review of the book, in *African Affairs*, 76, 1977. Although I largely share Roberts' irritations at the book, our more substantial views are rather opposed. Roberts sees the book as consisting of a core that « makes a useful and readable contribution to the study of local history in Zambia over the past twenty years », but superfluously and pedantically wrapped in nearly 300 pages of national-level material that everyone knows already. Not being a historian (Roberts is one of the major historians writing on Zambia), I claim that Bates' book is a-historical; that this material everybody supposedly knows already, largely consists of statistical artefacts and methodological naivety that no reader would care to claim any previous knowledge of; and yet I praise the book for being a major attempt at synthesis — an aspect that seems to be entirely lost on Roberts. I hope that, at this point, our common target can still appreciate the irony of the situation.