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The Alchemist and the Apprentice Myth-Hunter, Comments on Social Engineering in African Social Sciences

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Historians of science often emphasise the social conditions surrounding the appearance and acceptance of a particular reading of the world and the choice of techniques which underlie it. These contextual modalities describe the state of an order of knowledge, of a particular science. While the social dynamic shapes the emergence of an 'objective' approach, as part of a new social need, it always gives a firm steer at the same time to the modes and methods of knowledge towards a specific usage, which is socially legitimate, of an understanding of things which is always a function of the social system.

Although the relations between anthropology and colonialism are still the subject of heated debate, the social sciences, as they are practised both within and concerning contemporary African societies, seem to have escaped this epistemological examination, even though it is essential for them as sciences. It seems that this category carries with it a strong suspicion of inbuilt pedantry. Looking at social demands, as expressed in the predominant historical current of social engineering, this chapter will attempt to determine its influence on both the procedures and the results of social research.

In the field of studies of African societies, this involves a point of departure somewhere between the removal of received ideas (the hunt for myths), which involves the intention to uncover hidden meanings in social practices, and the conceptual and methodological fixing (the alchemy), almost incantatory, of utilitarianism, which a certain standardised usage of 'knowledge' in social matters attempts to impose. Perhaps we will thus be able to expose the issues at stake, as well as the ways they express themselves, as an accompaniment of the social struggle to define the truth on social questions in Africa?

A Second Colonisation of the Facts

The universal celebration of the genetic and spiritual unity of humankind should not allow us to forget the long and often painful way in which man affirmed his difference from nature – hence from the other components of the world of feeling. This has been a complex process of establishing a hierarchy between different forms of humanity. The question of these breaks makes the differentiation on which the essential part of the relationships of men to other natural beings (including man's own stages of evolution) is still based.

The specificity of 'we human beings,' which affirms the uniqueness of mankind, results from a double movement: a distinction of type, by the establishment of an order of classification of all the elements of the world of feeling, and a distinction among the 'self,' by the creation of a cultural gradation, based on an active positivism, responsible for defining the distance from the world of nature. Despite the constant determination of Africans to emphasise the nobility of being black, we must admit that slavery and colonisation have created images that make us reconsider this African humanity, which has been challenged by Europeans, because it has been definitively affected by memories of humiliation, deposited inside every one of us, based on the moral results of a crisis of domination. It can be understood, therefore, that the issue of the relationship of the African to himself first makes it necessary to enquire into the results of the old hierarchisation of humanities on the basis of a reformulated history of the identity of the African of today.

Two aspects of this affirmation, which will soon concern the African continent, should be considered. The first is closely linked to the internal differentiation of men, which establishes a classification of human beings, according to the combined criteria of biological and cultural origin; the second, which is a corollary of the first, taken as a tool of these principles of classification, defines the concrete modes of action to be applied to elements of nature. The Western taxonomic system insists that the European, whose colour is 'normal,' and who enjoys perfection of body and soul, possesses a moral superiority. In 'following all the gradations,' affirms Dr Charles White, Member of the Royal Society, 'we end up with the white European, who, being the furthest removed from brute creation, can from this fact be regarded as the finest member of the human race' (cited in Easlea 1986:297). We should note that at the other extreme of this spectrum is the black man, the African, recognised by everyone as being the still unfinished product of human evolution, as being the primitive or 'natural' person – the alternative name of the African. According to the accepted opinion of scholars at that time, monkeys were at the bottom of the scale, with rudimentary mental powers, followed by the 'orang-utan', the prototype of man and of the negroes of Guinea' (Easlea 1986:298)

In the same way, the process of identifying the second nature of humanity, as established by the philosophers and naturalists of the Enlightenment, leads to the question of the unity of mankind being raised, starting from the diversity and hierarchy among humankind. The definition of the degree of evolution of human society, coming from the 'second birth,' distinguishes between the republic guided by reason

and the state of nature, which in turn is distinguished from the 'savage state,' the realm of wickedness and of the savage, that 'limited and stupid beast.' The criteria which define the advance of reason are in accordance with 'the local economy of nature' (Scott 1990:27). Men, just like plants, according to the scheme of understanding then in vogue, are controlled by an implacable logic that continually creates a range of exotic elements, according to a hierarchy established in the West. So-called natural law, based on physical criteria, legitimised the conquest of non-European peoples, who were classified by the then accepted raciology, according to the degree of resemblance of their cultural and physical aspects to the ideal type, as it was established in Western thinking. Naturally, the shock of the primitive, by raising the question of the level of humanity enjoyed by each new group of people encountered, led to the idea of progress and of how to admit all the members of the human race into the great family of human civilisation. This theological debate became biological and cosmological, and then drifted toward a geographical awareness of the world. The fables of geography, inherited from the Ancient World, were gradually replaced by a concrete geography, fuelled by accounts of travellers. The concept of difference poses a problem for the West, and calls for a solution that could be both practical and symbolic at the same time.

The principle that encouraged and organised the colonisation of Africa was the superiority of whites over blacks. Racial hierarchies went together with colonisation. This sense of superiority expressed itself in the free use of zoological terms in discussing the blacks. The comparison with animals, which this led to, made the natives – 'this savage race' – into absurd and ugly monkeys and gorillas, or into faithful and lovable dogs, or else into swarming insects, just like the huge and incomprehensible world of those colonised. Colonisation, both in its ideology as well as in its practice, was based on this monkey-like conception of the black man, who was firmly relegated to the animal kingdom. With respect to the colonial activity of France, Jean Loup Amselle (Amselle 1996) has clearly demonstrated the role of 'republican raciology' in French colonial expansion in Africa. Colonial ideology devalued the native, and exaggerated natural elements as the source of wealth. The white man who penetrated into Africa kept a great distance, both physically and culturally, from the African, who remained a savage being. Anthropologists who specialised in colonial Africa held and spread a view of a continent that was inhabited by beings prone to spontaneous feelings, the very instinct that kept them permanently relegated to the animal kingdom.

In just this fashion, Griaule (Leprohon 1945:185) wrote about a film made on the Dogons:

The shots were all taken live, just like a newsreel. You can't expect the natives to stage a performance or even a rehearsal. Everything is spontaneous with them, and if you bother them with details, they're lost... The Dogons are wonderful actors. They all have the instinct of public theatre, and every one of them has his own way of reacting and expressing the feelings that move him.

The animal nature of Africans is also referred to in order to explain the consistency of their innate behaviour. In the early days of the colonial conquest of Africa, one of the officers most involved, A. Baratier (Ouédraogo 1991), expressed the motives that lay behind the civilising mission of France in florid language, without mincing words. In the black woman, he saw the 'luscious fruit of Sudan,' while the local people were 'these immobile natives, their height exaggerated by a long *boubou* of blue Guinea material, watching the steam train (progress) go by, wondering perhaps what had brought us to the Sudan, understanding our activity as little as their lack of it.' These natives without needs, desires, or activities were not men. These Blacks were not members of the great human family, and knew nothing about love: 'How could Blacks know anything about love? They don't even know how to express it. They do not have this softest of all words. They do not copulate or only copulate like animals.' So completely absorbed into savage nature, the African is seen as a natural element in the development of the conquered territories.

This animal comparison affected the 'scientific' perception of African social realities. Paradoxically, the confusion of the native world, likened to the animal kingdom without any qualification, but potentially unmanageable, emphasised its dangerous side. Based on this, external domination looked for essential points that would allow for better control of the people it dominated. The themes based on relationships, kingdoms and brotherhoods were responses to this imperial command. The need to control bodies driven by primary 'mentalities' led, on the other hand, to an oversimplification of indigenous activities and to an unjustified reduction in the diversity of local social practices. One can, therefore, imagine the influence of this perception on the 'object' of African social sciences after independence. There was no need for a complicated methodological structure nor an advanced conceptual combination to arrive at a profound conclusion about a reality that was very simple. This habit of looking at things made the native at best an informed witness, an innocent relay for European thought, but never a scholar of his own society, whose nearness to him exacerbated his already highly subjective approach and destroyed any scientific objectivity. Without any possibility of appeal, access to European areas of activity was completely denied him. Any unthinkable autonomy was regarded as the undesirable beginning of some dangerous subversion and to an unjustifiable claim to moral equality with the authorised representatives of the wise old civilisations.

There is no point in revisiting the well-known influence on anthropology of this conception of African societies or about the ways in which the results of 'indigenous' studies were used. We should remember, however, that this period of colonial domination, confident about its old racial classifications, denied Africans any capacity for practising conceptualisation or for formulating any conclusions about nature with the help of reasoned arguments. Based totally on instinct, any reflection from a distance or any scientific objectivity were both foreign to Africans. We now know how far this discriminatory ideology was itself based on a falsehood. The results were disastrous. Left to colonial anthropologists, African societies have only recently become the subject of investigation by a very small minority of local researchers,

who are trying to develop an autonomous academic space. Since the beginning of contacts with the West, any attempts to develop local knowledge have been systematically ridiculed and those who tried to create them denounced as charlatans. Differences noted in the way of implementing colonial domination (assimilation on the French model and 'indirect rule' on the English pattern) change absolutely nothing in the deep denial of local knowledge. Research institutions (universities and research centres), inherited from the colonial period, even though now transferred to local administration, have been decisively influenced by the weight of the past, the damaging consequences of which still compromise the function of science in the development of African societies.

We should recognise that in indigenous society itself, knowledge had to serve the needs of daily life. The circular universe of local philosophy was incapable of creating a distance between a man and those around him, so that an individual who was detached could exploit the world for his own benefit. Knowledge thus appeared in systems of this kind as a guide for daily action, based on experience and on approximations that could still be of use in this framework. There were two reasons for seeking knowledge. The first was the day to day functioning of the social order, which called for well-established prescriptions, of forms of knowledge that wore well and could be repeated, in order to take on the force of law and commonly accepted rules. The second was the need to master the surprising onset of disturbances to the natural order (rain, thunder, death, etc.). To do this, specialists in danger control and maintenance of good relations with the ancestors were established. Even though the technical function of myths (Abelès 1976) has been well analysed, this activity in the technical field is relatively limited and effective. The world of magic does not lend itself to criticism and experiments, which African pharmacopoeia uses with a greater or lesser degree of success. Magic, myths and traditional medicine are certainly directed towards the exploration of the unknown, but they remain enclosed by experimental reflexes, which have little capacity to construct theories and propel social change. This intellectual environment is not a fruitful inheritance, from which a new generation of researchers trained in the Western epistemological world could draw much inspiration. In any case, all the old figures of African intellectuals were rejected by the colonial powers who occupied Africa up to the 1960s. The opposition between the two logical approaches led to an irremediable rupture, and to an unexpected strengthening of an original science that was really African. Even today, a number of researchers on the continent refer mainly to the body of Western concepts, the famous 'colonial library' of Mudimbé, to write about African realities.

The stated intention among the elites, immediately after independence, to defend the history of the logical heritage of Africa, as a reaction to colonial negation, was soon overtaken by a general move towards compromise, thanks to personal ambitions and to a gradual deterioration of scholarly activities. There followed a break up of learned institutions and a redirection of vocations towards a search for political benefits. Alongside these benefits began a ruthless struggle to acquire wealth and

also an increase, more or less virulent, of competition among researchers. The social sciences provided a fertile ground for such rivalries to develop in the search for material resources. Thus on the one hand while at the time of decolonisation teachers and other interpreters lost the social weight they had earlier enjoyed from their position as intermediaries, on the other hand the new emerging elites, who believed for a time that they could reproduce locally the Western academic tradition, soon came to realise that the function of researcher was undergoing an irreversible process of decline in the social scale. During the 1980s, the illusions of an intellectual career evaporated with the deterioration of the material conditions of life for a researcher, stuck between high social capital and seriously diminished economic capital. The institutions with the responsibility within the academic tradition to take on this work of the intellectual and social advancement of researchers either no longer existed or were in a state of advanced breakdown. Other organisations were gradually taking their place and would establish new standards. New forms of collective action, represented by international associations and organisations, still needed to justify themselves intellectually and required means to measure trends in social change, so as to minimise conflicts as they arose. One could well expect that in our market society, every activity had to be based on the principle of financial gain, money, the new mediating factor in social life.

The devaluation of research was a result, in the first place, of a poor level of homogeneity in the local criteria for scientific ability, which could barely establish themselves as a central social value. In the world of 'experts,' individualisation and extraversion were defined from the outside, blocking communication among researchers and maintaining and even strengthening personal faults as well as rivalries over the control of the scarce resource: money. All means were used to keep open and expand the networks for making the researcher more marketable. This resulted in a situation which increased the subordination of local scientific practice to arrangements that had little to do with the needs of learned enquiry. This subordination of science, as a procedure for revealing the facts and means of production of a local identity was, in reality, an insidious colonisation of African facts and problems. It is by setting the questions itself about what is blocking its progress that a society takes charge of its own destiny. Knowledge about the world, which constitutes science, is a powerful means for collective emancipation.

A brief typology enables us to distinguish two main trends among researchers. Most of them take on consultancies and join all the devotees of the 'sociology of development,' which some hostile critics call ironically and with not a little condescending jealousy, the 'sociology of the digestive tract.' This operational sociology, which directs its energy exclusively to 'development,' is hostile to theory, on the grounds that it already possesses *a priori* the great model that explains everything, that is to say 'development.' It advocates a sort of 'social engineering' that is meant to go along with the 'basic development' of the people, who should 'look after themselves.' A minority, it must be said, takes as a starting point a highly academic concept of research and of the legitimate ways of validating it, and holds that

research into the basic mechanisms of society is a priority, which cannot be achieved except by the use of rigorous scientific methods. The researcher in this idealised classic world is in charge of the whole range of his work.

Innovations, Effectiveness and the Control of One's own Time

The aforementioned perspective is contrary to the gospel of proximity with the 'target populations', which explains why a presence on the ground is exalted, even when there is no epistemological justification for it that can accommodate all the controlled variables of systemic 'approaches' of all kinds. Starting from a pronounced holism, which reactivates the tribal vision of African social realities, we rediscover the 'paradigm of actors' (Long 1994) as an epistemological basis for development research. These phantom paradigms, often built on reputations and beliefs, turn round in the development world like profitable prayer-wheels. Novelties appear under such conditions, like so many forms of 'cultural' management of the valuers' market.

African intellectual activity thus appears to be something like a market of second hand or recycled goods. Conceptual objects are seldom new when they are imported and they are hardly ever invented here. To add some credibility to a social activity with staged intentions, this practical system adopts a rigid methodology as a way of fighting against academic theorisation. From the ordinary viewpoint, this asks too many questions without getting many answers. We need answers, even wrong answers – expert investigation will look for the error. But the heuristic power of this domain is extremely limited, in many cases, by the constraint of a methodological monism, which blocks the discovery of anything original and imposes an ideology of local demand that is supposed to be authentic, sacred but still pre-fabricated. In the background, one can detect the implementation of a modernist model, which is based on a bipolar and static perception, expressed in terms of what is 'modern' and what is 'archaic'. The calm application of these approaches leads to a sterilisation of the scientific approach. But for us, the question is still one of defining the way in which knowledge of the social world can contribute to the development of collective well being.

Even if the declared objectives seem similar – the ideology of the human rights will soon be two hundred years old – it cannot be denied that the methods of implementation are often sharply opposed. This contradiction necessarily calls for a definition of the social function of a researcher and of his scientific undertaking. Taking on this classic function limits the researcher's collective usefulness as such, while involving him in a new social life, directed solely by an economic purpose. This accusation of 'notability,' applied to the researcher, who enters the political arena under the cover of his scientific 'competence,' becomes a trader or a 'business patriot' (Maran 1938) leads him on, through one compromise after another, towards a radical opposition between his own personal interests and those of the group to which he belongs. It is worth noting that family pressures, to which many of them quickly give way, do not prevent remorse and other personal concerns connected

with this often painful contradiction. Personal solutions of keeping up research activities are rarely successful in the long term, or at least impose an unbearable social cost.

It is clear that the subordination of scientific work to questions of money involves important epistemological consequences and inevitably compromises the validity of any sociological analysis. In obedience to the commands of development institutions, this so-called 'interventionist' sociology abandons all scientific rigour and uses the most fanciful kinds of methodology, in keeping with the wishes and moods of those who commission these 'studies,' which are in reality simply an expression of 'interventionist policies' translated into pseudo-scientific terms. The field of sociology, which includes a whole area of interactions, is thus transformed into meaning little more than 'social assistance' and/or a scientific excuse for social projects.

This state of affairs is based on a confusion between the social sciences of those trained as engineers and those of 'basic' researchers. The result is that what should be a symbiosis between fundamental research, which leads to fresh awareness, and engineering science, concerned with putting into intellectual practice serious questions about the local value of knowledge, is converted by the sociologists whom one consults and by evaluators of all kinds, who favour a radical empiricism, into an arbitrary separation between complementary practices, and also – paradoxically – a drawing from the 'public domain' of items of sociological knowledge that serve as a learned decoration, which give an illusion of immediate clarity, but can lead only to erroneous and useless applications. The programmed blockage of development policies is also based on this artificial exploitation of 'information'. Yet, to set oneself up against this unduly narrow kind of utilitarianism is something akin to 'madness', so strong is the social power of this 'new science' and so expected is its final triumph.

It seems that this trend, which encourages an instrumentalist reduction of the link between information and action, that is to say one that firmly turns the increase of knowledge about society into a 'technical' treatment of social reality, also has the aim of dispossessing and, therefore, of removing from local society its own means of increasing knowledge about its own development, based on its own ability to achieve this. Jean Copans notes this confusion and deplors its results:

There is straightaway discrimination between knowledge said to be created on the ground and knowledge that really is created in a scientific way. This 'secondarisation' of research work is encouraged by the fact that the 'patrons' allow themselves to be increasingly corrupted by contracts for studies and consultancies, both national and international, and both public and private. Multi-national co-opting is alive and well: there is no time left for basic research or applied research that is overtly public (Copans 1990:319).

This instrumentalisation of scientific practices conceals a form of social domination. The aim of this critique is to complete a perspective of knowledge of the social world, which does not regard action as the carrying out of instrumentalised

knowledge, and which does not consider that the activities that a society undertakes for itself to make its own history can be reduced to some kind of system of technocratic regulation, ordained by outside domination and aimed at imposing as a future system, one that is necessarily based on the unbalanced functioning of the present version. Scientific work, as one understands it, requires an absence of time constraints. But the person who commissions research is in a hurry to use his time to make money. This means an emergency use of scientific practices is so necessary which makes nonsense of the cautiousness that all experience of the past indicates.

Plato, for example, makes a point of insisting that 'a free man always has time at his disposal', to examine whatever questions it occurs to him to consider. At the other end of the scale from Plato, Feyrabend commented ironically that both the slave and the expert have to follow the timetable of some superior, who sets out the list of questions they have to consider and points out the time still left to them by the inexorable hourglass (Feyrabend 1979:63). Here is a problem that seems at first to be of no importance. One always has the impression of being able to arrange one's own time and also of time being, in any case, a necessary constraint, the disagreeable aspects of which one can never avoid. Still, Plato (and Feyrabend as well) implicitly make one think that an expert or a slave, from the moment that he is no longer in control of his own time, can probably no longer avoid making statements that are unduly hasty and erroneous. This may seem to be a peculiar statement, but it nonetheless concerns an essential dimension of conditions for undertaking research. Haste is a more significant handicap than is generally believed. One should not be in too much of a hurry, not harried by external time pressures, when one is involved in research. As Whewell frequently insisted, there has to be a 'eureka' in any discovery, that is to say a moment of fortuitous intuition. Until this wonderful moment, time is needed for questions to ripen, for 'fortuitous connections' to be made, and for helpful analogies to be discovered. In the studies which we are discussing, constraints linked to the pressure of time limits, imposed by the need to act, operate in the direction of making it impossible for the researcher to reach any conclusion that is consistent with the caution required by the scientific method. Faced with the need to produce results within a certain time limit, the researcher gives up the slow pace of a rigorous testing of hypotheses. This encourages him to take positions that are 'reasonable,' which means to take commonsense positions, and present them as the result of methodical research. There is a twofold interest in making commonsense statements: first, they are immediately available, because they are given statements and do not have to be constructed; secondly, and above all, they at once set up the idea of 'commonsense,' something that can immediately be agreed on. This spares the researcher from having to make a laborious effort to justify something in order to make it appear to be true. For those who want 'to get on with things,' it is sufficient to throw together a 'scientific presentation' – or in other words, to set out conclusions in the formal framework of ritualised rhetoric.

One can see how great the damage done by this is:

1. Science no longer has the aim of discovering the truth. Research lays down other aims or perhaps it pursues no particular aim at all; and
2. Science has to follow the rules of common sense, and so the critical spirit, which should in principle control all scientific research, is regarded as a source of endless anxieties, and is thus rejected as vain and useless intellectual folly. It is hardly surprising, therefore, to see methodological protocols, designed to contain a break with spontaneous presentations, put to the service of a business whose aim is to endorse prejudices by promoting them into authentic scientific information.

Wittgenstein wrote that in grammar, there are no minor differences. Small variations in grammatical rules have the result of producing substantially different languages. In the same way and *mutatis mutandis*, one can say that in scientific activity, nothing can be left out without consequences. In particular, one has to take the time necessary to apply the scientific method in all its rigour. To the tyrant, who asked him to produce a rapid way, easy but sure, to learn the rules of geometry, Archimedes replied, 'Sire, there is no royal road to geometry.' There is an urgent need to believe that in the social sciences too, there is no 'royal road' to reach anywhere that is worth reaching. If scientific research is ruled by practical requirements that militate against scientific principles, it will no longer be able to convince the community of the validity of the results it has reached. In particular, the need to observe time limits that cripple the rigour of the research makes science run the risk of seeing the principle of moving away from any preconceptions collapse in the face of the practice of sticking to spontaneous presentations.

In the face of the failure of academic institutions and of the growth of the social crisis, the patient deciphering of social realities is giving way to another way of carrying out research, which will be turned into widespread research for easy gain. Good intellectual intentions will soon give way to commercial pressures.

From External Proof to Blind Actions

Epistemological prejudices affect both methodology and areas of investigation. The wise observer of the African research world soon learns an almost systematic and one-sided definition of research themes that are 'interesting' for wealthy sponsors, for 'experts' and for international organisations. These organisations and 'partners' constantly interfere to define a hierarchisation of problematics, which often has nothing to do with the concerns of researchers themselves and even less to do with any local perspective of building up and using information. In this situation, the African researcher is reduced to being nothing more than a collector of 'facts'¹ on the ground, for the 'partner from the north' to analyse and to write in a language that is suitable for such raw material. This skill moves further and further away from the spirit of discovery, and its arrangements are made in accordance with market forces. One cannot say often enough that the symbolic benefit of academic recognition is devalued in favour of the doubtful advantages of acquiring material possessions.

What legitimises this ‘mercenarising’ of scientific representation is, according to Etienne Leroy,² ‘a mixture of scientific knowledge, bureaucratic skills, political blindness and ethical irresponsibility...’ The author asks himself the question: ‘Is this the sign of maintenance or rebirth of a connection with colonial domination?’ Every ‘African’ science runs up against strategies for neutralising its efforts to set out its own theoretical and methodological requirements, in accordance with its role of revealing the hidden meaning of the social future, the leading instrument for progress. ‘Freedom is to know what is needed,’ Engels said somewhere. It is clear that we should not claim a special scientific status for African societies, but rather state the need for a local and ‘objective’ relational configuration, which is necessary for all sociological distancing. This proposition is essential for any untested sociology, imbued with a relationship of ‘equivalence’ for untested methodology, of some happy partnership with falsely fraternal aspects. Scientific domination imposes its own laws. ‘The categories that limit discourse created particularly by social relationships. These impose their own space by declaring it to be rational and neutral. They put forward the idea of reciprocity, where they alone hold any power, and they say to those who challenge this reciprocity that they lack objectivity’ (D’unrug, Moreau de Bellaing 1982:133). We shall try to show below how and to what extent the triumph of this kind of logic can be overthrown. It soon appeared to us that the career of sociologist cannot sustain this monopoly and this social neutralisation of the social science researcher’s ability to shed light on things. An enlightened scientific practice involves also a complete refusal to listen to these monologues on African realities.

Just as the work of the researcher can be a source of power, so too must he bear the heavy burden of defining the interests he serves. Whatever choice he makes, one thing is certain, his choice will not be without consequences. It will make its contribution to the construction of the city. One must still recall that it would be an illusion to believe that scientific practices are immune from all debates, or from subjective views about social conflicts in which the researcher is involved. Judith Schlanger interprets this necessary engagement when she writes:

As far as the desire for knowledge is concerned, it is involved in the clash of interests, and it is mixed up in all kinds of interest. Indeed these interests make use of it, but it also derives sustenance from them. They distract it, but it distracts them also. Just as it is their mask, it is also their parasite (Shlanger 1979:9).

And in the midst of its solitude, this over-determination concerns what she describes as the ‘deep thinker.’ At any rate – and this leads us back to the thinking of Elias – the influence of the milieu or of the collectivity in formulating scientific dialogue carries with it a dialectical argument: the ‘externalist’ dimension simultaneously takes on its opposite, as an inevitable reflex. In the scientific discussion, Judith Schlanger goes on to emphasise: ‘As well as understanding what is immediately under consideration, it is also necessary to state one’s own position and point of view. A problematic has its own problematic, in its cultural dimension’ (Shlanger 1979:14). The social analysis that enables a researcher to ‘see himself as he looks at himself’

settles the problem of his ambivalent social position as an engaged observer. Aware of this situation, the researcher can adjust his aim, so that with this correction, he no longer fires blank ammunition. This reflex is the one condition of any effective reasoned and enlightened action.

Technicist Illusion, Ends and Responsibilities

The basic question seems to be the following: what is the purpose of knowledge? If it is simply a question of given facts, available for immediate exploitation, then knowledge crushes and concretises and is just a matter of 'preconceptions.' On the other hand, reasoned and problematic judgment is helpful when it contributes to the creation of conditions for social well-being and where, to do this, it seeks continuously to define the terms of its own existence, as a collective subject of social change (Cornu 1997).

The consequences of this engagement are in large part dependent on the intellectual evolution of the society in question. Elias indeed explains that social science becomes a possibility only at the state of development where there is a clearly stated transition from self-constraint to self-control. One is aware that Elias's theory states that any scientific activity worthy of the name depends on distancing as a factor of 'emotional disenchantment,' which makes autonomous both the object and the hidden social relations behind it, which give it form. The privileged position of the researcher, if it does not lead to his transformation into a sterile intellectual elitism, can only be understood by setting it into the evolution of its social context. The social framework for research in Africa, whose sociology has still to be carried out, has not yet set out a formulation of the need for a scientific control of the human and natural environment. Uniformist categories seem to dominate these research perspectives. The consequences of an attitude of this kind do not yet seem to present a visible threat for individual and collective existence. The extraversion of ways of life and of social control by dominant groups leads us to neglect, or rather not to see, the complexity of local realities. These can appear, when observed from the point of view of action, to be without contradictions, especially when seen through the over-simplified classifications provided by colonial ethnology and the most radical theories of development. It is thus that

the way in which the individual members of a group react to everything that affects their senses, and the significance they attach to their perceptions, depend on their depth of knowledge and, therefore, on the degree of conceptualisation that, case by case, their society has reached in the course of its development (Elias 1993:12).

The power of the process of social disqualification that transforms traditional native knowledge into a matter of folklore does not leave unaffected current efforts to construct references that compete with those that have been imposed. Historians of science often repeat that a social 'ambience' propitious for scientific progress is a necessity. The 'pre-scientific' context of the current situation shows that the alchemist

is not just a creature of metaphor. As A. Koyré shows, the alchemist is the central character of the 'next world.'

It is not the material impossibility of carrying out his tasks that halts the alchemist. He does not make use of them, even when he has them all to hand. It isn't the thermometer that is missing. It's the notion of heat as something that can be precisely measured. So he is content with terms taken from common experience: a fierce fire, a slow fire, etc., and he makes no use or hardly of a -scale. (...) That is precisely the reason why the alchemist does not use one. If he did, he would be a chemist. And even to have the idea of using one, would make him a chemist already (Koyré 1971:350).

And so one can see why he limits himself to speaking in vague terms. For him, the meaning of science is not the search for the unknown. It is the 'technique' which he hesitates over, while the object of the exercise to which it would be devoted, is already known to him. The experiment is sovereign. Koyré emphasises later on that modern applied science is characterised precisely by the control of the practical by the theoretical. Accepting a certain model of society, this positivism exalts the carrying out of transformations by the use of 'applied tools', which then become ends in themselves. Y. Schwartz thus rightly observes that 'Rationalisation does not become degraded into a technicist illusion, except to the extent that it starts to neutralise or to consider as predetermined the questions of the ends for which it provides its faculties for arranging things' (Schwartz 1995:113). The least of heuristic preconceptions is to refuse any end that is not hypothetical.

The African researcher, either as a happy clown or as a sad and obstinate Prometheus, painfully tries to master the dilemma that overwhelms him and to refuse to retire into internal exile or to deny his own identity. Forbidden any access to realities, the apprentice alchemist has only one eye fixed on the almost mythical search for gold. 'Gold alone is the object of his desires. Gold is his legitimate son, because only gold can be a legitimate object to produce' (Eliade 1990:19). From the epistemological point of view, therefore, we find ourselves in an exclusive and enchanted relationship, that of the 'Golden Mirror gazing at the Golden Mirror' (Eliade 1990:19) At a basic level, the history of the alchemist who sells the 'common soul' defines in miniature another scale of virtues, which claims to proclaim a counter-discourse, this time a political one, and to define a new episteme. 'Scientific production' has something in common with social life, and the contradictions contained in the latter are reflected in scientific activities. We have reached the moment of decision. The difficulties in the way of developing scientific activities that are directed at local problems come from an increasingly widespread socialisation of knowledge and of the stakes involved. 'The socialisation of science,' writes J. Bonitser 'complicates its ethics. The proper ethic of science, that of wise scientific activity, is increasingly mixed up with the ethic of the man of science's responsibility towards society considered as a whole' (Bonitser 1997:180). It is obvious that 'society' is divided by contradictions and that these divisions affect singular identities. Debates are conducted

and scientific activities defined around the philosophical definition of social perspectives. All philosophies can claim to be legitimate at a strictly formal level. But it seems to me that the line of ethical division includes the researcher's responsibility and also his methodology and therefore an historical appreciation of science. The alchemist is set on his need to understand final ends – the 'eternal truths' – and tries to impose a dogmatic view of the social space, reinforced by a certain moral perspective that also sets out a vocation of scientific practice. When faced by this concept of scientific practice, we can soon see how monolithic it is. Refusing to examine any social presuppositions, hastily described as 'sociological,' some developmentalist approaches do not acquire the means of affirming a methodological autonomy that is essential for any investigation of the social order. They conceal more than they reveal. But the principal vocation of the sociologist, according to Elias, is to hunt down myths. He writes, 'This hunt for myths, the denunciation as worthless of the contents of myths which underlie presentations – that is the task of science...' (Elias 1981:58). This function of science is not compatible with its diversion into channels of gain, which creates an illusion of intelligibility and of practical effectiveness as a coherent system for immobilising the social dynamic.

Universalism, Objectivity and Disinterestedness

There is a need to formalise and to theorise, while always maintaining a constant relationship between abstractions and facts. As M. Callon notes, 'The scientist never works directly with nature itself, but only with representatives of nature that are more or less faithful, and more or less numerous and remote' (Callon). It is nonetheless true that too great a tendency towards speculation risks confining the sociologist to unduly narrow limits, to a kind of glossy but fruitless narcissism. Do we have to emphasise that the distinction between *learned sense* and *common sense* is what forms the social sciences? It should be underlined that the scientific practice of sociology necessarily links together demonstrative and conceptual logic with empirical facts. Elias asserts that 'Sociological theories that are not verified by the work of empirical sociology are worthless. They do not even merit the status of theories.' To sustain this perspective is an invitation to modesty in the face of the complexity of the social world, which never immediately reveals the logic of its working. The concrete is also a complexity that some 'Africanists' obstinately refuse to apply to 'African matters' – even such a simple human relationship as that of the famous local 'networks' would clear up this point.

One may have the impression that some of the 'commissioned studies' in social sciences reintroduce into a study of matters human the classic distinction in natural sciences between basic and applied research. Alongside research that is concerned solely with discovering the truth, whose only aim is knowledge for knowledge's sake, there are studies that are carried out by teams and in laboratories financed by business. We know that such research has rendered important services to science, and also how much the great adventure of computer science owes to research carried out in the United States for military purposes. It is undeniable that today research

into the science of matter cannot easily do without private financing. And since human sciences receive less attention from governments than hard science, we can look favourably on the search for help from development institutions for studies which they finance about problems which they have defined. Is this not the way for the social science researcher to have the certainty of getting a grasp of the good and the ill of mankind? Is this not the only way that the science of man can prove, according to a famous formula of Marx that its theories are of this world? One also recalls the words of Auguste Comte: 'to know is to foresee; to foresee is to act'; and one can argue that studies commissioned by development institutions are an effective way of fulfilling the destiny that was appropriately mapped out by a founding father.

There are a few considerations that can help to moderate any such optimism. In the first place, it is clear that we are not dealing here with structured teams, working for the long term. In the natural sciences, there are properly integrated teams, enjoying a certain autonomy, and also enjoying adequate means and time. Competition can certainly sometimes impose time limits, which may, to a greater or lesser degree, be incompatible with the methodological precautions that would guarantee scientific objectivity; but without some reasonable time limits, one would hardly be able to reach worthwhile conclusions in any complicated research. In the research which concerns us, however, we are often confronted with what are rightly termed 'ad hoc teams,' assembled to deal with specific programmes, in such a way that their research experience cannot be built on by the wider group. Against this background, any new research often has to begin again from scratch. This kind of research seems, above all, generally to be carried out in a context that vitiates scientific norms as defined by Merton (Merton 1957): universalism, communalism, disinterestedness, organised scepticism and autonomy. These norms, which form what Merton calls the ethos of science, were subsequently submitted to more or less severe criticism by authors who fostered the relativist current in the sociology of science (Barnes, Dolby 1979:3-35). In a nutshell, they blamed Merton's point of view for idealising science and not treating it as a human activity like any other. For such critics, science was culturally determined both by its institutions and by its content. As far as we are concerned, we have to consider science as a specific activity, which needs to be examined through the characteristics that form its identity. And it seems that the norms defined by Merton touch on something that is fundamental for scientific enterprise.

According to Merton, the principles by which scientists control their actions form what he calls their 'scientific conscience.' Linked to the principle of autonomy, this means that the man of science has to reply to his conscience alone for having done work that is rigorously scientific. It seems, however, that the area of 'commissioned studies,' with all its networks, its time limits, its epistemological compromises, etc., imposes other requirements on research than purely scientific ones.

Merton defines universalism by the idea that scientific statements must be subject to previously established and impersonal criteria, and should conform to already existing observations and knowledge. This way of looking at science has prompted

the idea that it is deeply theoretical. The idea of criteria and of pre-established knowledge goes in the direction of a specific culture. Scientific research should be conducted in a particular cultural environment, which confers on it the cachet that is its due. This is not a question of jargon, but of an approach and of a group of concepts that contribute to the definition of a community, and form the bases for the possibility of an accumulation of progress. One of the requirements of a scientific culture is indeed that a corpus of scientific knowledge can be built up. Without any such dynamic for recording knowledge as it is acquired, we are destined to stumble uselessly around. In the social sciences, circulating concepts seem to be of fundamental interest because concepts can pass from one researcher to another and acquire their own autonomy and a validity independent of the context in which they were originally formulated. In addition, it is only through such a process that they can be made more precise, more refined and, in the end, better controlled. It is particularly interesting to see concepts used in the context of one study being employed in an illuminating way in a completely different area. Since in the social sciences, a rigorous replication can hardly be envisaged, this process can be regarded as a test, which can provide an acceptable substitute for an experiment. By demonstrating the proof of its heuristic validity, a concept puts itself forward as an illuminating tool for investigating a particular field of social reality.

One can thus see that scientific culture is an area in which the researcher is talking to the scientific community. It is not simply a methodological ritual that places the work of a researcher in a given scientific space. A knowledge of and the use of certain concepts are also highly necessary. In the type of research we are talking of, the 'practical' spirit can often become allergic to any effort to theorise. Men of action who are in charge of development institutions are mistrustful, sometimes almost pathologically so, of anything that they profess to regard as useless and empty discussion. This is why the researchers who work with them soon learn to be 'practical,' and turn away from any subtleties which might complicate matters, when what is needed is something simple that makes action easily understood and effective. One can thus often see the methods of social scientists reduced to a collection of recipes to 'find' what the men on the ground need to conduct their work. One can understand the remarkable phenomenon that the development studies we are talking about use, without any critical hesitation, the concepts worked out by the technocrats of development institutions, which they then impose on others as so much popular jargon. In this way, such concepts as sustainable development, sustainable human development and good governance, etc., are used by researchers, who never query their relevance. It is seriously stylish to use them again and again, often with a complete lack of clarity. If the Mertonian norm of communalism emphasises the idea that the results of research should be a common good, it implies equally the need for an appropriate use of concepts by the scientific community. One could almost say that scientific concepts only wear out when they remain unused. But as one can see, development research leads to a culture that does not encourage the creation of a useful heritage in the field of social science.

Accepting uncritically concepts put into circulation by the development institutions, for practical rather than theoretical reasons, runs against the norms of disinterestedness and organised scepticism. It is indeed clear that important financial considerations explain the collusion between social science experts and development technocrats. The principle of disinterestedness should obviously be at the heart of the objectivity that characterises science. Disinterestedness is the fact that the researcher, in his research work, should have no reward in view, whether it be material or moral. This is the guarantee of emotional neutrality and, therefore, objectivity. The 'operational' social sciences, which are only a form of ideological social immobilism concealed by claims to practical effectiveness, on the lines of 'social engineering,' are in fact the expression of a negative shift in the capacity of African societies to take charge of their own history.

In a work devoted to inequality in the face of science throughout the world, Charles Morazé emphasises that wherever science has been able to develop freely, it always operates in favour of equality. He sees equality demonstrating itself in two ways in this context. First, it brings together scientists from every geographical and racial area and from every level of wealth in the 'universalism of one and the same logic.' And subsequently, it contributes to the improvement of living conditions for all people. This point, indeed, corresponds more with results from the so-called exact and experimental sciences, but it also fits with the social sciences. He then makes a highly penetrating remark:

The consequences of this are particularly serious for developing countries. The less they are present at the cutting edge of future scientific development, the lesser their chance of making their point of view prevail in the scientific community. The more they are dependent on decisions taken by external authorities, situated at the poles of discovery, the more they will suffer from the deficiencies of being at the periphery. Science is always a herald of the future, but it builds this future on what has been acquired in the past and on decisions which, in the last resort, are also based on ambitions and interest inherited from the past. Developing countries have so much the less chance of using science for their own benefit, because they have themselves been the victims of a history that has particularised the progress of knowledge (Morazé 1979:5).

This recalls the principles that direct scientific activity helps to underline its importance for society, but more especially to show that its performance depends largely on the conditions in which man has placed it. There is nothing fatalistic about anything that has been said here. In the face of the deteriorating conditions for scientific endeavour, individuals create new strategies, consisting mainly of giving up its practice and in turning to other, more lucrative, activities, political ones in particular. These strategies are also to be seen in the movement of people to brighter horizons. The brain drain allows individual scientific projects to be carried out after they have been thwarted by deplorable national conditions. Getting around such blockages might

happen in a utopia which minimised all constraints and exalted abnegation and tenacity. Do conditions exist in Africa on which to base such a perspective? Perhaps they do. But in either case, is it still possible for Africans to do otherwise? Basing themselves on their pride on what they have acquired in logical and practical fields and by remaining sufficiently modest about undergoing fresh apprenticeships, African societies may perhaps reach the point of marking out new ways for a prosperous future.

Notes

1. A French technical assistant, who announced himself to be an 'expert in social sciences,' insisted, without any reservations, that African students should justify their theses by experimental work on the ground. His idea was to strike down African pretensions to the plane of abstraction. One original way of realising 'The Great Divide', that has been so well analysed by Bruno Latour. See in particular his article 'Comment redistribuer le grand partage', *Revue de synthèse*, n° 110, April-June, 1993.
2. 'L'expertise internationale en Afrique: le cas de l'expertise juridique sur les questions foncières', *Bulletin de l'APAD*, n°2, December 1991, p.16. The new wave of development anthropology, a new subjects for experts, concerned with the material rejected from 'populisms', maliciously raised the question of the third kind of researcher: 'to be relevant and to take account of the fact that they were supposed to involve themselves in specific activities, did not those who embodied it have to play the role of negotiator or mediator between the developers and the developed, and thus press on the needs of their activities to the very end even if they were not completely on the side of those who were carrying it out?' J.P. Dozon, 'Le dilemme connaissance-action: le développement comme champ politique', *Bulletin de l'APAD*, n°1, p. 15.

References

- Abelès, M., 1976, *Anthropologie et marxisme*, Brussels, ed. Complexe.
- Barnes, S.B., and Dolby, R.G.A., 'The Scientific Ethos: A Deviant Viewpoint', *Archives Européennes de sociologie*, X (1979), pp. 3-35.
- Blackburn, P., 1989, *Logique de l'argumentation*, Montréal, Éditions du Renouveau pédagogique.
- Bonitser, J., 1997, *Les chemins de la science. Questions d'épistémologie*, ed. Sociales.
- Cornu, R., 1997, 'Le voisin sait bien des choses, le voisin peut bien des choses', In *Reconnaisances du travail*, collectif, PUF.
- D'unrug M.C. and L. Moreau de Bellaing, 1982, *D'une sociologie de la méconnaissance*, ed. Anthropos.
- Dozon, J.P., 'Le dilemme connaissance-action: le développement comme champ politique', *Bulletin de l'APAD*, n°1, p. 15.
- Easlea, B., 1986, *Science et philosophie. Une révolution 1450-1750*, ed., Paris: Ramsay.

- Eliade, M. 1990, *Le Mythe de l'alchimie*, ed. L'herne.
- Elias N., 1981, *Qu'est-ce que la sociologie?*, Pandora/des sociétés.
- Elias, N., 1993, *Engagement et distanciation*, Fayard.
- Habermas, J., 1973, *La technique et la science comme 'idéologie'*, Paris: Gallimard.
- Habermas, J., 1976, *Connaissance et intérêt*, Paris: Gallimard.
- Koyré, A., 1971, *Etudes d'histoire de la pensée philosophique*, ed., Paris: Gallimard.
- Latour B., 1993, 'Comment redistribuer le grand partage', *Revue de synthèse*, n° 110, April-June.
- Leprohon P., 1945, *L'exotisme et le cinéma*, j. Susse.
- Leroy E., 1991, 'L'expertise internationale en Afrique: le cas de l'expertise juridique sur les questions foncières', *Bulletin de l'APAD*, n°2.
- Long, N., 1994, 'Les champs de bataille de la connaissance. L'interpénétration de la théorie et de la pratique dans la recherche en sciences sociales et en développement', *Bulletin de l'APAD*, n° 7.
- Long, N. and Long A., eds., 1992, *Battlefields of Knowledge: The Interlocking of Theory and Practice in Social Research and Development*, London, New York: Routledge.
- Maran, R., 1938, *Batonala*, Albin Michel.
- Merton, R.K., 1957, *Science and Democratic Social Structure. Social Theory and Social Structure*, Freepress, Glencoe.
- Mudimbe, V.Y., 1988, *The Invention of Africa: Gnosis, Philosophy and the Order of Knowledge*, Indiana University Press, Bloomington and Indianapolis.
- Mudimbe, V.Y., 1994, *The Idea of Africa*, James Currey, London.
- Morazé, C., 1979, *La science et les facteurs de l'inégalité. Leçons du passé et espoir de l'avenir*, Paris: Unesco.
- Schwartz, Y., 1995, 'De l'inconfort intellectuel ou comment penser les activités humaines', in *La liberté du travail*, Syllepse.
- Scott A., 1990, *Cognitive Foundations of Natural History: Towards an Anthropology of Science*, Cambridge University Press.
- Verret, M., 1992, *Eclats sidéraux*, ed., Du petit véhicule, Nantes.
- Weber, M., 1963, *Le savant et le politique*, Paris: U.G.E.

