Ethical Competence and Development

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Research in the natural, social and human sciences plays a major role in the development of the world today. In this paper I want to summarize some ideas which have emerged during my work with problems of research and development in the last few years. My experience with this problem area is based on taking part in three projects: one in collaboration with art historians and philosophers at the University of Bergen, inquiring into the foundations of the art historians' practice; another in collaboration with computer specialists and artists at the Swedish Centre for Research into Working Life in Stockholm, concerned with the effects of computerization in industrial life; and a third project concerned directly with the role of research in local and national development. The third project, which is still in the initial phase, is the joint responsibility of Håkan Törnebohm and myself, and may be regarded as a continuation of our collaboration at the University of Khartoum in the early sixties.

I shall use the words "science" and "research" in a broad sense to cover scientific research in the natural, social and human sciences as well as applied research and similar forms of organized knowledge-production.

1. Understanding and Development

1.1. *Understanding without development*

In the current ideologies of science and research one can distinguish at least three main conceptions of the role that the scientist ought to play.

The first conception I shall consider demands that the scientist should limit himself to acting as an objective observer of his chosen field of study. The scientist's task is to understand the processes in the field. His role does not include the duty of trying to change his field of study. On the contrary, it is obligatory for him to abstain from interfering with the field of study (*qua* scientist). Classical representatives of this conception are e.g. Max Weber and Wilhelm Dilthey.

Given the political conditions in the German Empire, the decision to draw a clear line of division between the realm of science and the realm of politics may have been a wise one. I am not interested here in trying to assess the political wisdom of historical figures like Weber and Dilthey. But I want to draw attention to an assumption which seems to lurk behind the "understanding without development" ideology, viz. the assumption that the scientist can and ought to be neutral with regard to change. Both parts of that assumption are untenable (I think): it is impossible to be neutral with regard to change when one plays the role of a researcher in the contemporary world, and it is in some sense undesirable to try to be neutral when doing research. The sense in which I think it is undesirable and my reasons for thinking so will, I hope, be clarified through the following pages.

1.2. *Development without understanding*

According to the second traditional conception of the scientist's role, the scientist has the duty of contributing to change, but only indirectly. The guidelines of development are drawn up by other people ("the politicians"). The task of the scientist is the subordinate one of trying to solve limited problems within the given framework, either within the enclave called "basic research" or as an "expert" in the field of applied research.

Basic research is then regarded as a source of change, which may be tapped by anyone for any purpose. And applied research is regarded as belonging to specialized roles with limited responsibility. The view according to which science is a vast reservoir open to anyone who may want to use it overlooks the vast differences in *resources available* to citizens at different stations in the kind of societies we live in. (Cf. the idea of equality before the law, which similary disregards the differences in power and influence which exist in our societies.[1] The trade unions, for instance, have only recently started to make use of research for their own purposes. The idea that responsibility may be delegated to others is utterly unacceptable to me. As far as I can see, trying to free oneself of responsibility means the same as choosing to leave the moral universe.

Further, it may be noted that the traditional conception of the role of the expert builds upon an oversimplified view of the relations between means and ends. The directives given by "the politicians" are of necessity vague, to some extent; the expert who wants to find suitable means to reach the ends must therefore contribute to making the ends more precise.

I conclude that the conception of the expert as a value-neutral specialist on finding suitable means is an ideology in the sense of giving a false picture of what is really going on. I refer to this ideology as "development without

understanding" for the reason that the development which the expert's activities eventually lead to is not based on the participants' understanding of the situation. Only the experts and the politicians are considered to have the grasp of the situation necessary to initiate change. Hence, the traditional role of the expert belongs to an authoritarian context not compatible with participation.

1.3. *Development through understanding*

The activities of a traditional expert might contribute to the solution of certain given problems, but they do not normally add to the participants' own resources. The people affected by development will not normally be in a better position to solve their own problems after having been made the object of expert analysis. If one has the ambition of contributing to the creation of new resources for the people concerned, one will have to resort to other methods than the traditional expert's work resulting in reports addressed to the policy-makers. Alternatives to the traditional approach might be indicated by phrases like "self-reflection" and "insight-creation".

Self-reflection and insight into one's own situation are ubiquitous; they are part and parcel of the human predicament (though often overlooked by theorists and political leaders). But one's self-reflection may be more or less systematic, and one's insights may be more or less clear and well articulated. Communication with other men and women and our understanding of their situations are dependent upon our possibilities of conveying our insights to them and vice versa. If one wants to contribute to long-term processes of change based on participation, it is therefore essential to raise the level of articulation amongst the people concerned. And in the same fashion, it is necessary to raise the level of self-awareness and articulation amongst the scientists concerned. Awareness of the role of the scientific enterprise in society is not included amongst the values given priority in the training of scientists today. The key question is then, how do you foster a stronger awareness of the needs and values of the people who will eventually be affected by the results of science among the scientists themselves? The answer I want to suggest is that some changes will be necessary in the demands required to play the researcher's role well. We need some changes in the conception of scientific competence.

2. Scientific Competence

2.1. *Competence and performance*

Any speaker of a language masters a complex set of rules which enables him to use the language adequately. The task of linguistics may be said to consist in the systematic reconstruction of the linguistic competence required in order to use language.[2] The distinction between competence and performance may be applied to all human actions. When we perform a certain action, we do so on the basis of having acquired the relevant competence. Accordingly, one could envisage a general theory of action (pragmatics, praxeology) divided into a theory of competence and a theory of performance.

Applying this distinction to the field of science, one could envisage a pragmatics of science consisting of a theory of scientific competence and a theory of scientific performance. The task of the theory of scientific competence would be the systematic reconstruction of the skills and properties required to take part in various scientific enterprises.

Scientific skills may be regarded as refinements upon everyday life skills. The cognitive, perceptual and motoric skills required in scientific contexts are not essentially different from the corresponding skills required in other contexts. When assessing an applicant's competence for a chair, for example, one naturally concentrates upon the specialized skills required to fill the post in question. In the present context, we can leave such specialized skills out of consideration and concentrate upon some general features of scientific competence.

Starting-points for reflection on scientific competence can be found in Thomas S. Kuhn's and Håkan Törnebohm's work on paradigms in science. In *The Structure of Scientific Revolutions* Kuhn did not attempt to make an exhaustive list of components of scientific paradigms.[3] For his historiographic purposes, he found it useful to single out four components: symbolic generalizations, general views on the nature of the field of study, shared values, and model examples which serve as precedents in research. Mastering such components is no doubt essential to the competence required to take part in the development of the disciplines Kuhn was concerned with in his book. In a slightly different context, Håkan Törnebohm has arrived at a systematization of the components of scientific paradigms into five groups: ideals of science, research orientations, world pictures, research ethics, and the aesthetics of research.[4] In the present context, we are particularly interested in the ethical component of paradigms of research, and in the corresponding demands on researchers which I shall refer to as *ethical competence*.

From a pragmatic point of view, one component of scientific competence may be singled out as fundamental, viz. the competence required to make use of concepts. The ability to use concepts is indeed fundamental to all human thought and action. In order to be able to play a role well, we must first of all be able to think and act; we must have the general action competence required of all normal human beings. To have general action competence means to have mastered some set of concepts, varying from culture to culture. Mastering a concept is again a complex of skills, cognitive, linguistic, motoric and perceptual ones. Our concepts constitute the worlds of meaning in which we live; hence the fundamental importance of conceptual development for the development of science (for instance). (Cf. 5 and similar works in the tradition building upon Wittgenstein's later philosophy.)

2.2. *Ethical competence*

Using the distinction between competence and performance, one may note a contrast between classical and recent moral philosophy. Moral philosophy in the utilitarian tradition has put a strong emphasis on the performance side (actions and consequences) to the neglect of the competence required to perform well. Older moral philosophy (up to, say, Hume and Kant) was more interested in the moral qualities required to lead a moral life than in the characteristics of the actions regarded in isolation from the agent. It was assumed that the notion of rightness of actions could be illuminated by clarifying the notion of the moral agent. Right action presupposes practical wisdom, which is Aristotle's term for ethical competence (or at least an essential aspect of ethical competence).[6]

Again comparing recent and classical moral philosophy, one may observe that recent moral philosophy deals extensively with "norms" and "values". The history of these concepts would be worth tracing in some detail. In Kant and earlier writers on ethics these notions do not occur explicitly, and neither does one find the modern emphasis on value consciousness as a determinant of moral action in classical writers like Plato and Aristotle. What we call "value consciousness" today is only one of the factors which are necessary for ethical competent action. Ethical competence requires experience, as Aristotle emphasizes, and the only way to acquire the relevant experience is by acting, initially under the guidance of the more experienced, gradually more on one's own. Ethical competence has to be built up over time.

In recent practical philosophy and social science, it has often been assumed that the main determinants of human action are norms and values. The

strategy for competence building and for changing existing patterns of action which naturally follows from this assumption is to attempt to change the existing priorities of norms and values and to raise the level of articulateness concerning norms and values. In the realm of science and research, this approach sometimes gives rise to attempts to formulate "codes of ethics" for various professional groups. The value of such attempts is bound to be limited if it is true that value- and norm-consciousness is only one of the determinants of human action, and perhaps not even amongst the most important ones.

Values and norms belong to the *resources* which are necessary to be able to act consciously and intelligently. The resources necessary for rational action may be divided into material and intellectual ones. The norms and values at the agent's disposal belong to his intellectual resources together with his *factual knowledge* which enables him to get a more or less adequate grasp of the situation he is in or will be in, his *imagination* which again will help him to get a more or less adequate picture of possible situations and developments, his view of the nature of man and society and perhaps the universe (anthropology, social philosophy, cosmology, theology). Perhaps one should add the individual's *social resources* as a separate item to the list (his contact net, power and influence).

Finally, yet another contrast between recent and older moral philosophy may be noted. In Aristotle, for instance, there is a strong emphasis on the necessity of learning from examples, which agrees well with the view of human action which emerges from Wittgenstein's *Philosophical Investigations,* but less well with the modern emphasis on abstract rules, norms and values. If it is true that the only way to learn the correct application of a rule is by trial and correction, then examples can no longer be considered as mere illustrations of general rules. On the contrary, the meaning of the rules can be seen to be internally related to the range of examples through which the rules are introduced. Hence the importance of "exemplars" in Kuhn's sense not only in scientific contexts but in all walks of life.[7]

2.3. *Reflection in science*

The role of reflection in science is often disregarded or suppressed. According to Kuhn, "normal science" consists of the transmission of established paradigms of thought and action. There is little scope for reflection on the meaning of the enterprise in the practice of "normal science" of this kind. It is obvious that the "normal" must not be allowed to be regarded as ideal if one cares for sensitivity in science, sensitivity not only to the internal aspects of science but above all to the concerns of the men and

women and children who will eventually be affected by the research one is doing. As Anne Buttimer has put it, "we need to understand competence as embracing the vision of its articulator, his subsequent reflections on its meaning, as well as the specific research skills which may be demanded by it".[8]

It is also obvious that a more reflective practice of science will not come about by itself. Current practices are supported by formidable centres of economic power, and it would be utopian to expect quick changes in this field. The long-term processes of competence building required will comprise tasks of articulation, critique and constructive work. The level of articulation could be raised through the institutionalization of reflection in the training of scientists and researchers. The philosopher could play the Socratic role of midwife in such tasks of articulation of hidden assumptions of existing research enterprises. Empirical and ontological issues will be at least as important as normative and evaluative issues, if the picture presented in the foregoing is correct. From an ethical point of view, it will be particularly important to analyse the social ontologies presupposed in science (anthropologies, social philosophies).

Existing practices can be criticized, by philosophers and others, and alternative practices can be worked out. To find motivated participants in experiments with alternative forms of research one would have to address oneself primarily to the young recruits of science. The task is thus the double one of trying to understand existing exemplars of science better and of trying to elaborate new exemplars which are more sensitive to the needs and interests of the people concerned.

3. Towards a Philosophy of Development

3.1. *Philosophy in development and philosophy of development*

In our joint paper "Research, Ethics and Development"[9], Håkan Törnebohm made a distinction between philosophy *in* science and philosophy *of* science. The reflective part of research could be characterized as a philosophy in science. The branch of philosophy called "the philosophy of science" can be said to have the task of reflecting systematically on the philosophies to be found in science.

Similarly, Håkan Törnebohm has suggested that one should make a distinction between philosophy *in* development and philosophy *of* development. By a *philosophy in development* is meant the assembly of assumptions concerning the nature of man and society, the nature of development processes, the aims of development, the methods for reaching those aims,

etc., which make up the basis for existing schemes of development. The task of the *philosophy of development* would be to systematize and improve upon existing philosophies in development. (Törnebohm's and my ongoing project "Research policies in the Sudan" is an attempt to formulate some of the key issues within the yet to be established branch of philosophy which we call "the philosophy of development", based on empirical material from a country in which we have both lived for several years. My present contribution might be regarded as background notes to this project.)

3.2. *Practical knowledge*

In *The Concept of Mind*[10], Gilbert Ryle made a distinction which might help to pave the way for an alternative view on the possibility of participation in science and research. Theorists in the Western tradition (he pointed out) have tended to be more interested in the theories we adopt than in the conditions which make it possible for us to make and entertain theories. There is a tendency to emphasize the kind of knowledge which we have when we know that something is the case, and a corresponding tendency to neglect the kind of knowledge we have when we know how to do something. "Knowledge" in our philosophical tradition means "knowing that" rather than "knowing how". The skills and properties required in order to be able to have theoretical knowledge tend to be neglected in the traditional perspective. The emphasis on theoretical knowledge at the expense of practical knowledge is no doubt one of the reasons for the prevalence of "expertise" today: it is tacitly assumed that lack of theoretical knowledge implies lack of insight and self-understanding. Starting from the practical knowledge every normal human being has of his own needs and desires etc., one can envisage alternatives to paternalistic strategies of development based exclusively on theoretical knowledge.

3.3. *Participation and competence building*

In countries as diverse as Sweden and the Sudan, there is an increasing awareness of the desirability of more participation in working life. The Swedish Centre for Research into Working Life was established in Stockholm in 1978 with the aim of furthering participatory democracy in the area of work; and when we interviewed leading researchers and research administrators in the Sudan recently, we found a similar emphasis on the value of participation.

The way from words to deeds will be a laborious one in this field. Trade

unionists, traditional tribesmen and others who are not wont to using the resources of research are bound to find it difficult to make proper use of researchers also in situations where both sides have good intentions and a strong desire to cooperate. The way out would seem to be to experiment with new forms of research which might be described as combinations of traditional research and education. The potential intressees of research must be trained to articulate themselves in new contexts, and they must get the training necessary to be able to take part in research processes to some extent. At the very least, they must get some realistic idea as to what research can do for them and what it cannot be expected to do. In order to safeguard the interests of the people concerned effectively, it will probably be necessary to draw them into the research processes to a considerably higher degree than what has been usual so far. The competence of the intressees must be raised in order for this to be possible.

The competence of the researchers must also be raised to enable them to take part in such research. The communicative competence of the researchers must be improved upon in order for them to be able to communicate effectively with scientifically untrained intressees. The researchers will have to develop maieutic skills in order to be able to play the roles of educators, catalysts and co-planners.

Joint competence building will thus be an important aspect of the style of research required to make research more sensitive to the interests, needs and hopes of the people concerned.

The research on such lines in which I have taken part in the last few years is in many ways similar to "action research". A main difference is the time perspective. Joint competence building requires time. It will usually be unrealistic to expect quick, spectacular results from the intervention of research which has the ambition of caring for sensitivity.[11] When it comes to development through understanding, there is no substitute for experience.

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