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## THE HUMAN FACTOR AND ECONOMIC PROGRESS

N. Westermarck

For many years it has been almost dogmatic in the theory of political economy to regard the input of labour and capital as the dominating factors. During more recent times, however, the conclusion has been reached that economic progress cannot be explained only by taking into consideration capital and labour, but that there is also a third factor, namely, *the human factor* which consists in education, improved techniques, the stage of knowledge, and so forth.

### PRODUCTION TECHNIQUE AND SKILL

From Norway we have available an interesting study by the economists Aukrust and Bjerke regarding the significance of the human factor from an economical and technical viewpoint.<sup>1</sup> The national product of Norway has increased during this century by about three per cent annually. Capital investments are responsible for a third part of the increase, labour power for a seventh part, but a full half of the increase depends on a factor which is called *improved production technique* which is so to say, the human factor. Happily, during the very recent past, political economists even in other countries have directed their attention towards the economic significance of the human factor.<sup>2</sup>

The figures obtained from the investigations call for reflection, and the only right conclusion would be that the tempo of progress can be increased not only by increasing investments but also by conscious measures to make man more skillful through greater contributions in education and research. In order to increase human skill, we must put our stakes on that; in other words, we must invest in man. This must not, of course, be understood as a desire to revert to a stage where man would be capital goods in a state of slavery, thralldom or feudalism.

### TRAINING OFTEN BY-PASSED

When one critically considers the activity which now takes place in many of the world's so-called developing countries, one is struck by the vast projects which are designed for the construction of dams, power stations, factories and perhaps above all, steel works. At the same time only insignificant sums are reserved for training and education, and so one asks: Can one really, in this way, bring about a harmonious utilisation of the available resources in these countries?

According to Yudelman,<sup>3</sup> Iraq during the post-war years has invested from its enormous oil resources four hundred million dollars on flood control and irrigation systems and similar other projects, while only a fraction of this gigantic amount has gone for instructing and educating farmers and others as to how to

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1. Odd Aukrust & Juul Bjerke : *Realkapital og økonomisk vekst 1900-1956, Statistisk sentralbyrå artiklar* 4. Oslo, 1958.

2. Theodore W. Schultz : "Investment in Man: An Economist's View" *The Social Service Review*, Vol. XXXIII, 2., 1959.

3. Montague Yudelman : "Some Issues in Agricultural Development in Iraq," *Journal of Farm Economics*, Vol. XL, February, 1958.

utilise these constructions effectively. This is one of the biggest mistakes that foreign experts consider that the government authorities in Iraq have committed.

The fact that coloured people in the United States earn, on the average, only a fraction of what white men do, is directly traceable to their lesser skill. The lower level of productiveness, again, follows from their neglected education. The assumption that a biological superiority is connected with the colour of the skin is theoretically ridiculous and dangerous in practice, according to American anthropologists, for which reason it cannot be assumed that the lower level of productiveness of the coloured man is linked with biological inferiority.

#### FARMBLINDNESS

Economic progress and profitableness of course depend on many things, as for example (the climate, the quality of the soil, the price level, etc. However important the collaboration between the natural and economic resources of agriculture is to successful activity, they only constitute the instruments of production. It is the personal contribution of the farmer-entrepreneur which is eventually decisive. How often has it not been seen that where one entrepreneur has been stumped by his task, another has come off with flying colours.

The reason that farmers do not always react to the desirable extent to advisory activities, depends, among other things, on the following: (i) the so-called farmblindness, (ii) insufficient capacity of conception, (iii) an all too strong dependence on prevailing local views.<sup>4</sup>

*Farmblindness* is a phenomenon which is met with in all professional groups. It occurs when a person works for a long period of time in the same *milieu*. In the farmer this characteristic appears especially strongly if he has worked only on his home farm from childhood on. In such cases some existing conditions are considered as fixed and unalterable, for which reason the farmers themselves are not able to overcome existing failings.

*An insufficient capacity of conception or imagination* manifests itself in that other than traditional ways of working cannot be imagined, nor can the effects of the changes of acting and management be conceived. Imagination has been stressed because there have not been possibilities of working outside the home farm and opportunities for comparison have not been at hand.

An all too strong dependence on the local opinion, the so-called *village opinion*, is a characteristic that makes its appearance with especial distinctness in localities where people live together in large villages. The phenomenon is not of course solely negative, but has its origin in the desire of the village to guard its ethical and material status. However, it is negative when people are afraid of freeing themselves from the village opinion and resorting to more radical acts.

A weighty argument on the farmer's side, when attempts are made to have him reorganize his production, often follows the following lines. How can an

4. H. Rheinwald: *Grundlagen und Methoden der Beratung*: Rheinwald—Preuschen *Landwirtschaftliche Beratung*, Bonn—München—Wien, 1956.

outsider after a quick survey, reach acceptable proposals to remedy insufficiencies, which the farmer himself, after having cultivated his farm for years, ought to know better, but notwithstanding, has not discovered? Undoubtedly, the entrepreneur is closely acquainted with, for example, the specific qualities of the fields, livestock and buildings of the farm. With regard to farmblindness, influenced by the village opinion, a thorough knowledge of the specific qualities of the individual fields, machines and domestic animals does not imply that opportunities for improvement have been realized. The farm business ought to be considered as an organism which is not made up only of material constituents (fields, buildings, machines, livestock, etc.), but the most important factor of which is the entrepreneur himself. This is especially the case with peasant farms. *The farmer and his wife in fact constitute a part of the farm organism itself, wherefore it is easier for an outsider to survey, judge and find out the eventual deficiencies.*

#### FARMERS' REACTIONS TO ADVISORY ACTIVITIES

In all activity concerning the improvement of farming there are difficulties to be met. A disadvantage is that we know altogether too little about the real effects of various measures. Our knowledge is quite superficial, for instance, as to why one method is preferred to another. Why are some farmers more bound by tradition than others? Why is it, for example, that silage fodder has not found acceptance although calculations indicate that it is a cheaper and better fodder than hay, or that the loose-barn system has not been accepted to the desirable extent in regard to animal husbandry?

Systematic research has hitherto, to a quite small extent, been made of the factors, the innermost human factors, which are the basis either of a certain development or a certain stagnation.

A systematic classification of farmers according to their reactions to advisory work, proves that many separate categories can be distinguished<sup>5</sup>. There are the so-called *innovators*, i.e., people who adopt new methods before others. The next group is formed by *imitators*, or early adopters who quickly follow the innovators' steps. The great *passive mass* only slowly puts into action new methods or techniques. There remains still a fourth group, which *does not react at all*. This category constitutes not seldom the majority.

#### INFLUENCE OF INDIVIDUAL ADVISORY SERVICES

In the year 1954 in Finland a programme of work was commenced with the aim of elucidating the influence of intensified individual advisory work on management and success of family farms. The activity lasted for five fiscal years, covering the period from April 1954 to the end of March 1959.

The main purpose was to gain evidence expressed in technical and economic figures of what may be brought about when the farm business—farm-firm—is looked upon as a whole.

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5. George M. Beal & Joe M. Bohlen: The Diffusion Process, Special Report 18, Agricultural Extension Service, Iowa State College, Ames, Iowa, 1957.

As the book-keeping farms have not been the objects of advisory activity other than that which is shared by all farmers, the diagrams clearly indicate that the manifestly higher increase of profitableness within the study farm group is obviously the consequence of intensified advisory activity. The results of the study are seen in the diagrams below.

FIGURE I—THE DEVELOPMENT OF PROFITABLENESS ON 32 STUDY FARMS VERSUS 48 BOOK-KEEPING FARMS IN THE SIZE-CATEGORY OF 10-20 HECTARES ARABLE LAND IN SOUTHERN FINLAND.

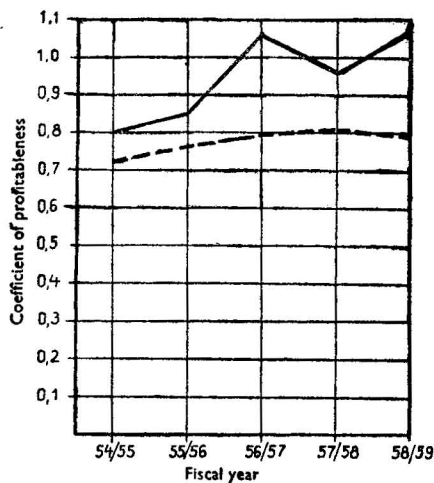
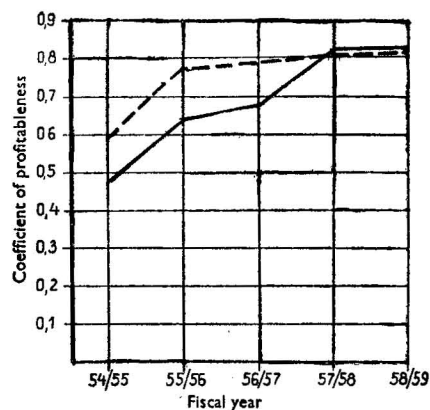


FIGURE II—THE DEVELOPMENT OF PROFITABLENESS ON 9 STUDY FARMS VERSUS 25 BOOK-KEEPING FARMS IN THE SIZE-CATEGORY OF 10-20 HECTARES ARABLE LAND IN OSTROBOTH-NIA.



Note:— ——— Family farms receiving individual advisory services.  
 - - - - - Book-keeping farms which have not received individual advisory benefits.

*The fact that profitableness has increased is largely attributable to the human factor which has been effected, stimulated and developed, thanks to the collaboration between entrepreneur and adviser.*

A study of opinions was also included in the research, i.e., the entrepreneurs of the study farms were asked about their opinion as to the advisory activity they had participated in. Among other things they were requested to give in the order of their importance the *three most beneficial measures* which according to their opinion have most effectively promoted profitableness. As of first importance came rationalization of pasture cultivation especially the establishment of seeded pastures; secondly, soil mapping and rational fertilization based on it; thirdly, the procuring of machines, particularly tractors according to an executed mechanization plan, and fourthly, the setting up of a cropping plan and its execution.

The entrepreneurs of the study farms were also requested to respond as to which of the performed *measures of rationalisation* would probably *not have been undertaken* without individual advisory services. All the 41 farmers would have omitted soil mapping, 19 would not have established seeded pastures or in any other way improved their pastures while 9 reported that they would not have made economic calculations or kept systematic notes.

It is apparent, that as long as advisory activity is not directed to individual farms with individual planning from case to case, a whole lot of measures will remain untaken. It is to be noted that the farms were quite common smaller ones and by no means model farms, but where the farmer has really felt interest towards promoting its economy. The inference would thus be that *greater stress should be laid on individual advisory activity.*<sup>7</sup>

#### THE TALENT RESERVE

Torgny T. Segerstedt<sup>8</sup> remarked in one of his essays: "In the old peasant community the chance of life depended upon the possession of land, forest and animals; in the earlier industrial community on the possession of means of production. In the community of tomorrow an individual's chance of life depends on his possession of education and talent."

With regard to the future of agriculture it is in the interest of all society to watch our talent. There is the feeling that in these times of regimentation this has been neglected to an unduly great extent. Farming has awakened to reflections only after the talents have been lost.

It may be pertinent to ask the question, what will be the situation in the future with regard to our intellectual resources? And it is true for long-run development we have to combine intellect with education, research and advisory work. In the meantime, we have to enquire what happens to the human material itself, intellectually viewed.

Without going deeper into the question of talent reserves in this connection *the significance of education remains one of the foundation stones, where all development is concerned.*

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7. See N. Westermarck : "The Human Factor and Success in Farming" *Acta Agric. Scand.* I: 2., 1951 and "Management and Success in Farming," *Acta Agric. Scand.* XI: 4., 1960; and Holger Mollgaard, In *Tyrannos*, 5 oplag, Kobenhavn, 1959.

8. Torgny T. Segerstedt: "Utbildning och samhalle," *Acta Univ. Upsaliensis*, 1957: 8 (1957).