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VALUABLE UNDERTAKING BY THE PHILOSOPHY
FACULTY OF MOSCOW STATE UNIVERSITY

By P. V. Chelysheva

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FOREWORD

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[Following is the translation of an article by P.V. Chelysheva in Nauchnyye Doklady Vysshey Shkoly, Filosofskiye Nauki, No 4, Moscow, 1960, pages 150-154].

One of the main elements of the material-technological base of Communism is automation and the complex mechanization of industry. The introduction of automation and complex mechanization involves not only large economic benefits but also serious social consequences.

The study of the effects of automation is a sphere of activity not only of engineers, economists and technologists but also of people in the most varied professions including psychologists, philosophers, sociologists and physiologists. The necessity arises in connection with this of unifying the efforts of theoreticians and practitioners in a combined investigation of the consequences of automation by representatives of diverse sciences. The study of the social consequences of automation is inconceivable without a concrete familiarity with production.

The first steps in the resolution of this problem were taken by the Philosophy Faculty of Moscow State University. A group of 27 students under the guidance of instructors G. M. Andreyeva, G. M. Shestakov and A. D. Kosichev familiarized themselves during the course of two months with the work of three large Moscow enterprises where automatic production lines have been installed: the First State bearing Plant, the Ordzhonikidze Machine Tool-Instrument Plant and the "Red Proletarian" Machine Tool-Instrument Plant.

This familiarization with the above mentioned enterprises was accomplished in two basic directions: by elucidating the role of automation of production as a means of liquidating existing variations between physical and mental labor and the role of social organizations in the struggle for technological progress.

Each of the students had an opportunity to talk with the workers and to get answers to questions of interest which concerned the most diverse aspects of the worker's life: the workers' length of service, his general educational level and special qualifications, his attitude towards working in new conditions, his leisure activities, etc. These conversations with the workers were supplemented

by information provided by the managers of production.

As a result of this two-month project by instructors and graduate and undergraduate students a conference was arranged on the subject "Automation of Production -- The Most Important Condition for the Development of Productive Forces and Industrial Relations in the Period of the Extensive Construction of Communism" and took place on 5-6 April of this year in the Philosophy Faculty of MGU (Moskovskiy Gosudarstvennyy Universitet -- Moscow State University). At the conference, along with the undergraduate and graduate students and instructors of the faculty, were representatives of industry who discussed their experiences with the introduction of the first automatic production lines.

The dean of the Philosophy Faculty, Professor V. S. Molodtsov, opened the conference. He remarked that automation is the most important condition for the long-term development of production. V. S. Molodtsov dwelled on the important distinction of the consequences of automation under Socialism and under Capitalism and on the evolution of automation which took place in several stages. He said that the resolution of the tasks of the Seven-Year Plan by automation represents the highest stage in automation. In connection with the resolution of this task, representatives of various fields of learning must combine their efforts with the aim of crystallizing the consequences of automation.

Professor A. A. Zvorykin, Doctor of Economic Sciences, presented a report "Concerning the Features in the Development of the Material-Technical Base of Communism." The material-technical base of Communism, according to the lecturer, is characterized by three basic aspects: 1) by the nature, size and effectiveness of the means adapted to production, 2) by the level of science and the stage of its practical applicability and, 3) by the new combinations of social labor. The transition to automatic machine systems and then the conversion of them into a universal system of production will signify a revolution in the means of labor. The boldest change in the means of labor is appearing in electroenergetics. The speaker referred to the example of one of the largest electric-power stations -- the Kuybyshev -- which provides 2,300,000 kilowatts of energy a year and is operated by 15 men per shift.

In our day the solutions to the problems of automation have serious difficulties which are connected with the diversity of nomenclature of manufactured goods produced by separate factories. The first stage in technical reconstruction is the maximum reduction in nomenclature of manufactured goods, the classification of components and the regulation of their issuance. Specialization of production will be a result of this stage. Stamping must be another condition for automation which, in its turn, will lead to the substitution of presently used materials and, in particular, to the broad adoption of plastics.

Science will play a large role in the creation of the material-technical base of Communism. The lecturer pointed out the perspectives of future production at the center of which will be constructor associations.

An interesting speech was made by the chief of the automatic machine shop of the First GPZ (Gosudarstvenny Podshipnikovoy Zavod -- State Bearing Plant). He related his experiences with the creation of the first automatic machine shop for turning out mass produced bearings at the First State Bearing Plant. The automatic production line was started in 1955 in a shop for experimental research which replaced hand labor in 26 operations out of 30. With the planning of the automatic shop a host of scientific-technical problems were solved (problems of automatic control of components, of mechanization of the gathering of shavings, of transportation of component parts between machines, etc.).

Along with the purely technical questions were resolved once again questions of wages and the organization of labor. Here is practised the combination of trades which permits the progress of production to continue painlessly while for one reason or another separate specialists are out of action.

The comparatively short period of existence of the automatic machine shop makes it possible to make several deductions concerning the changes not only in the nature of labor in this shop but of the worker himself. M. A. Kuminskiy showed that the nature of the production process in the automatic machine shop favors the expansion of the technical outlook of the worker. For example, the adjuster of an automatic lathe, besides lathe work, must be familiar with the hydraulic system, pneumatics and electricity. A metal craftsman who specializes in repair must be a highly qualified technician. He must understand the schematic diagram of machine tools, know the principles of hydraulics, etc. Labor in the automatic machine shop is distinguished by great efficiency of production which also promotes a general advance in the efficiency of the worker.

Docent A. D. Kosichev, Candidate of Philosophical Sciences, gave a report on the subject "Automation of Production as a Means of Liquidating Existing Differences Between Mental and Physical Labor." He observed that contemporary automatic production is characterized by great precision, complexity, diversity of processes and great speeds. A system of automatic control and operation is taking the place of manual labor and manual control. The basic purpose of the development of automatic machines is characterized by the principle of self-regulation, when a machine will automatically adjust itself to changing work conditions, and by the principle of self-instruction which means that the machine will automatically learn the peculiarities of the production process and work out the optimal work program.

Automatic production virtually demands of the workers high efficiency with thorough and well-rounded knowledge. For this reason the process of automation will lead to the combination of professions.

As a result of technical progress, automation and mechanization of production, the number of narrow specialties is declining, especially the trades requiring laborous, unskilled labor. Thus, in the engineering industry at the present time are numbered 158 professions instead of the 2,960 which formerly existed.

Under the conditions of socialistic automation the production profession is raised to the level of the scientific-technical profession. The progressive workers themselves creatively alter and reconstruct the production equipment and create, in the main, the new machines. A. D. Kosichev gave practical examples of the First GPZ where workers Novikov, Svenokhov and Shchelokov designed and fashioned automatically operating machines which permitted the automation of the process of rolling coil. At this same plant, in the ball bearing shop machinists Viktorov, Karasev, Frolov and foreman Gorokhov designed and produced automatic machines for assembling and packaging bearings.

In an automatic production system the place of the engineering-technical workers is changed. They participate in the creation of material values and influence the articles of labor just as the workers do. In conditions when the deciding role in production belongs to the workers doing intellectual work, the latter are transformed into efficient workers and form a combined worker staff. The labor of the workers becomes a variety of engineering-technical labor, and the labor of the intellectual workers becomes productive labor. All this will lead in the end to the liquidation of the existing disparities between manual and intellectual labor.

The deputy chief engineer of the Plant imeni Ordzhonikidze, V. K. Smirnov, told of the rise in the technical level of assembled machine tools and automatic production lines produced by the plant. As a result of the introduction of automation the productivity of labor at the plant must increase by 40% during the Seven-Year Plan and the cost of production must decrease by 25% due to the modernization of production. In accordance with this task the engineering-technical workers of the plant are already occupied with studying those directions in which the reconstruction of production will go. V. K. Smirnov dwelled on the concrete problems of the work of assembled machine-tools, their virtues and imperfections, and on the perspectives of their long-term improvement.

The chief engineer of the Plant imeni Ordzhonikidze, A. M. Gurvich, explained the characteristics of present-day machine tools and automatic lines for turning methods. He outlined the difficulties connected with making automatic the processing of components with revolving bodies and the ways of overcoming them in the factory.

A graduate student of the Faculty of Dialectical and Historical Materialism, A. B. Mnushkin, in his lecture showed how the functions of the worker are changing and of his place and role in production due to changes and the perfection of technology. On the foundation of an acquaintance with the work of automatic production lines in the First GPZ and the statistical data of BRIZ (Byuro Sodeystviya Rasionalizatsii I Izobretatel'stva - Office For the Promotion of Industrial Efficiency and Inventions) of the plant, A. B. Mnushkin described the qualitative changes of the cultural-technical level of the worker and his functions, and also the changes in staffing of workers on the side of increasing the percentage of highly qualified workers and engineering-technical workers. Analysis of the data of BRIZ of the First GPZ shows that the greatest percentage of rationalizers occurs in the automatic machine shop. This indicates the rise in the technical level of workers in an automatic production system in a socialist society and unmasks the false contentions of bourgeois ideologists about the unification of the worker with the advent of automation.

S. V. Lifshits, deputy chief of technology of the "Red Proletarian" Plant, gave a report on the complexity of mechanization of serial production of lathes. Having spoken of the characteristics of machine-tool construction as the heart of the machine construction industry, he remarked that the perfection of machine-tool construction defines the countenance and methods of machine construction. At the "Red Proletarian" Plant technical development is being realized in two directions: the output of new machine-tools and the technological perfection of production. S. V. Lifshits gave a technical description of both trends. He underscored the fact that automation and mechanization in the plant, despite the considerable expenditures on them, are very effective.

The manager of the department (ofdel) of scientific-technical information of the First GPZ Plant, V. M. Genis, reported on the rise of the cultural-technological level of the workers with an example from his plant. The problem of transforming a plant into a model-demonstration enterprise according to the stage of automation, mechanization and technical equipment, he said, will necessarily lead to radical modifications in the organization of labor and in the occupational composition of the workers. Automatic production requires of adjusters high qualifications, combining the responsibilities of a worker-operator, adjuster, machinist-repairman and electrical repairman. The rising demands on the worker in automatic machine shops and production lines call for the necessity of increasing his general educational level. The lecturer cited figures testifying to the growth of the general educational level of factory workers as a means to the development of production. Professional training plays a decisive role in raising the qualifications of the workers. Polytechnical training, headed by ex-

perienced specialists, was introduced in the factory schools for the working youth. V. M. Genis showed that workers on automatic connections are approaching the level of engineering-technical workers.

Docent M. G. Shestakov, Candidate of Philosophical Sciences, delivered a report on the rising rôle of social organizations in the struggle for technical progress. The lecturer dwelled on the characteristics of the unfolding process in our country of the transfer of several control functions into the hands of the public.

The rôle of social organizations is growing in the struggle for technical progress during this period of gradual transition towards Communism. In production new forms of social control over the activity of administration have sprung up -- the party control commissions -- and the constantly active industrial conferences testify to the triumph of the Leninist principle of democratic centralism.

The advantage of these new forms of control lie in their attraction of large numbers of people for participation in the control of production. Thus, for example, at the First GPZ more than 400 people were elected for the all-plant party control commission.

The creation of new forms of social control over production represents one of the measures directed to the long-term overcoming of excessive centralization and to the elimination of bureaucratic obstacles. It promotes the development of initiative by the masses. New forms of control open a wide vista for a growing, conscious activity by the masses of the people in conditions of dictatorship of the proletariat and for their active participation in the construction of Communism.

V. A. Onushchenko, a student in the Fourth Course, spoke on the rôle of the party control commission at the First GPZ and the "Red Proletarian" Plant. The party control commissions created in the factories of the country by a decision of the June 1959 Plenum of the CPSU, were called upon to draw the broad masses of the party to the management of production, to enlarge the rôle of the party organization in the business of perfecting and developing production and to control the activity of administration. There exist all-factory and shop party control commissions. Thus, at the First GPZ there are five-all-factory commissions, each of which governs a definite sector of production, controls its activity and signals to the administration occurrences of failure of plan fulfillment and waste.

The composition of the all-factory party control commission is formed on the principle of unification of workers of different occupations, basically of department engineers, which allow for securing control of plan fulfillment along different directions of the production program. The party control commissions shop also consist mainly of workers of various trades. In such a way the commissions encompass a large collective of activists directly participating in the process of production.

The importance of the control commissions became evident immediately after their creation. Thus, in 1959 at the First GPZ as a result of the fulfillment of the enactments proposed by the party control commission for technology, 10,000,000 rubles in costs were saved after only six months time.

The party control commissions work in cooperation with other social organizations -- labor unions and Komsomol organizations; however, as Onushchenko pointed out in the example of the First GPZ, not all the opportunities of the social organizations are used in full measure because of the lack of strict differentiation in their activities.

A student, F. V. Lazarev, discussed the role of Komsomol organizations in the matter of technical progress. He remarked that the appearance of new forms of Komsomol work which promote the activity of the Komsomol masses, involves them more broadly in the work of perfecting the production process. The Seven-Year Plan staffs (shtab), Komsomol raids, and councils of young specialists belong among these forms.

Each of these forms carries out control over the correct course of productive life in the defined sector. For example, the Seven-Year Plan staff of the Plant imeni ordzhonikidze, looks after the automatic production line, helps the rationalizers and inventors to convert their proposals into life and renders aid to those fighting in the ranks of the brigades and shock troops of Communist labor. As a result of the constant control of the Komsomol members over the quality of production, in the course of the production process itself practically all production waste has disappeared here. The activity of the youth appears in participation in promoting efficiency. At the Plant imeni Ordzhonikidze, 127 out of 824 proposals for rationalizing the work process came from Komsomol members. The Seven-Year Plan staff follows the course of fulfillment by the First GPZ of needed orders from other factories and design organizations.

Student Shevelev delivered a report concerning several summaries of concrete research on the consequences of automation. Observing the necessity for such research, he pointed out the difficulties with which students are confronted in familiarizing themselves with work in the factories. The brevity of time during which the research was conducted limited the opportunity of tracing the process of change in the nature of the worker's labor with the advent of automation. One could make judgments about this change by the stories of the workers themselves. The absence of methods of concrete research on social life also has a bearing on these difficulties.

On the basis of conversations with 20 workers and two foremen of an automatic machine-shop, Shevelev gave the characteristics of the worker in such a shop. The worker in an automatic shop is a

highly qualified worker who performs observation and control over the work of two to four component sections of the automatic production line. Labor in the automatic machine shop is cleaner, easier and more pleasant; expenditure of physical labor is negligible. The workers of the automatic machine shop are constantly raising their cultural level; they study, participate in sports and faithfully attend movies and theaters.

G. M. Andreyeva, Candidate of Philosophical Sciences, delivered a report dedicated to disclosing the falsifications by contemporary bourgeois sociologists of the social consequences of automation. G. M. Andreyeva dwelled on an analysis of the sociological conception of the social consequences of automation under Socialism.

Progressive sociologists adhere to the idea that only a planned economy and control over social property as the means of production open the unlimited opportunities for raising the productivity of labor. However, several of them incorrectly understand the basic conditions of automation, attributing to them only the high level of economic development, the great size of exports, the high degree of industrial concentration and the strength of labor unions. Here the deficiencies in scientific methodology were discussed which do not allow progressive scientists to pursue the genuine stimuli of growth and perfection of production -- social relations.

A different group of bourgeois sociologists falsifies the processes taking place in the USSR in connection with the introduction of automation. Falsification, remarked G. M. Andreyeva, basically follows the line of identification of the character of automation under Socialism with that under Capitalism. Bourgeois sociologists (for example, the French sociologist, J. Friedman) proceed from the assumption that automation is connected with the breaking up of productive operations into the smallest and most basic parts. On this basis they conclude that all automation dooms the worker to thoughtless labor and under Socialism will lead to the appearance of exploitation, to the loss of freedom of the individual, etc. The lecturer showed the groundlessness of such conclusions which are founded on the substitution of understanding of automatic production by a conveyor type system and by a reluctance to understand the qualitative distinction of Capitalist and Socialist society in which the means of production belong to the workers and all the benefits of increased labor productivity accrue to them.

The conference and the research work which preceded it are a first attempt to undertake a complex study of the problems of the construction of Communism. At the conference along side the philosophers participated economists and representatives of production -- factory engineers.

Familiarity with the activity of factories has significantly enriched the students' knowledge and made more concrete their theoretical store of knowledge. However, along with the positive

results, deficiencies must be noted in the work which was begun by student raids on the factories. The absence of devised methods for concrete research on the social appearances of activity was spoken of negatively.

The necessity for continuation of the work is beyond doubt. The problem lies only in finding concrete ways of improving such research.