A Workshop for Married Women in Part-time Employment

Implications of an Experiment in the Netherlands

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The domestic and industrial issues are two aspects of a whole [2]

THERE CAN BE NO DOUBT about it—the relations between the parties on the labour market reflect their relative strength. When jobs are hard to get, when there is substantial unemployment, poverty and a low level of development in general, then what is traditionally known as the demand side, i.e. industrial undertakings and other employing units, dominates the situation; while what is traditionally called the supply side —workers of various classes and occupations—is under economic coercion, since the people concerned must earn a regular wage, wherever they can find it, in order to keep going. If workers so placed have any choice, it is not between one job and another but between " this job " and no job at all: in other words, when they seek employment their position of weakness prevents them from taking any but economic considerations into account.

During the past 15 years that kind of situation has largely ceased to exist in many countries and areas of Western Europe and North America. Instead—one may say, for the first time in history—not only is employment available for all but there is a structural manpower shortage, an expanding economy, with rising levels of income and consumption, of well-being and general development. As a result large groups of workers have for the first time been able to choose between one job and another, one employer and another, and have thus been in a position to take non-economic considerations into account in their choice of work.

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[2] P. JEPHCOTT *et al.*: *Married women working* (London, George Allen & Unwin, 1962), p. 176.

Industrial undertakings and other employing units—the demand side of the labour market—thus find themselves in a much more complex position. Not only are they faced by stronger and more fastidious supply groups; they also find themselves in competition with one another for the available work force. This situation obliges them to adjust their internal technical and organisational structure and their personnel policy; indeed, in the new situation continuity in recruitment has become a cause of concern and requires specific planning.

As yet the possibly revolutionary significance of the above-mentioned structural changes, both for the management of industrial undertakings and for public social, economic and general policy, is hardly suspected, still less translated into clear-sighted proposals for future action.[1] Local, pragmatic experiments with new kinds of organisation, working conditions, management, planning and control are still exceptional. However, some of the results of such experiments can be offered for the construction of future policy.

The present article describes a particular experiment, made because of such a changed situation. Though neither dramatic nor revolutionary, it may be considered, against the background sketched in the preceding paragraphs, as not without significance. But before the scheme itself is depicted, a review of the relevant conditions must be given.

National background

The above-mentioned structural changes began to be felt in the Netherlands in the middle of the 1950s and became increasingly pronounced in the years 1959 to 1965. The growing shortage of personnel was experienced everywhere and stimulated a more deliberate search for means of tapping non-traditional sources of labour. In addition to foreign workers [2], active interest was taken in the employment of women.

In the Netherlands in 1960 working women made up 23 per cent. of the gainfully occupied population and 26 per cent. of the total female population over 14 years of age. In both France and the Federal Republic of Germany the corresponding figures were about 34 and 40 per cent. In Britain and the United States working women made up about 34 per cent. of the gainfully occupied population, in Sweden and Switzerland

[1] Valuable data and suggestions in this regard may be found in the following: W. G. BENNIS: *Changing organisations* (New York, McGraw-Hill, 1966); J. F. FOURASTIER: *Les quarante mille heures* (Paris, Robert Laffont, 1965); E. JAQUES: *The changing culture of a factory* (London, Tavistock Publications, 1951); R. LIKERT: *New patterns of management* (New York, McGraw-Hill, 1961); D. LOCKWOOD: "The affluent worker", in *Sociology*, Vol. 1, No. 1, 1967; and H. J. VAN ZUTHEM: *Arbeid en arbeidsbeleid in de onderneming* (Assen, 1967).

[2] On this point, see R. WENTHOLT: *Buitenlandse arbeiders in Nederland* (1966).

about 30 per cent., in Italy 27 per cent.[1] So the percentage of women working in the Netherlands could be regarded as low.

But, as in other developed countries, substantial shifts have been taking place within the general category of gainfully occupied women. While their number and proportion have remained approximately constant, there has been a steady fall in the proportion of women who help in their husbands' businesses, and a sharp rise in the number and proportion working in non-agricultural, non-domestic activities. In general, the number of unmarried women decreased between 1947 and 1960, absolutely and relatively, as a result of the fall in the average age of marriage and of the declining surplus of women over men in the age groups under 35 years. Yet, despite the absolute and relative decline, in the same period the proportion of unmarried women going out to work increased by three points—from 55 to 58 per cent. of all unmarried women between 14 and 64 years of age.[2]

It is more interesting, having regard to the growing shortage of labour, to examine the position of married women and to compare this with the position in neighbouring countries.

Again in the period 1947 to 1960, the proportion of married women going out to work in the Netherlands increased sharply—from 2.5 to 4.7 per cent. of all married women. If wives helping in husbands' businesses are included, we reach a total proportion, for 1960, of 7 per cent. of all married women. In Belgium 15.4 per cent. of all married women were working in 1947 and the number has greatly increased since. In the Federal Republic of Germany, and in France, Great Britain and the United States, about 33 per cent. of all married women went out to work in 1960.[3]

There is thus a striking difference between the position in the Netherlands and in the neighbouring countries, where the married woman worker is a much more usual phenomenon.

This is due to various factors. For one thing, in the Netherlands industrialisation and urbanisation did not develop in real earnest until after the Second World War. For another, opinions and attitudes towards the employment of married women outside their homes changed slowly; the view that a married woman should look after the household, and nothing else, while the husband earns the family's living, is still strong and widespread in the Netherlands; it reflects the long-standing conception of the role of man and wife in the traditional Dutch family.

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[1] See International Labour Conference, 48th Session, Geneva, 1964, Report VI (1): *Women workers in a changing world* (Geneva, I.L.O., 1963), and the figures from the (Netherlands) Central Statistical Office, reproduced in Sociaal-Economische Raad: *Advies over de arbeid van vrouwen in Nederland, 1966*, p. 11. This report gives a good review of recent inquiries and publications on the subject in the Netherlands.

[2] Figures from the national census of 1960 provided by the Central Statistical Office, The Hague.

[3] See *Women workers in a changing world*, op. cit., pp. 15 ff.; and Viola KLEIN: *Women workers: working hours and services*. A survey in 21 countries (Paris, O.E.C.D., 1965).

An inquiry on this subject [1] among a representative sample of women with family responsibilities revealed that 56 per cent. were more or less opposed to work outside the household, while only 20 per cent. were positively disposed towards such work. According to these women, the great majority of breadwinning husbands objected to their wives going out to work; so their attitude was apparently much more negative than that of the wives themselves. This generally unfavourable opinion is found in all groups of the population—rather more strongly in those with religious affiliations, rather less so among people with more money and higher education.

However, there are indications [2] that the number of married women seeking employment is likely to rise further as a result of increasing urbanisation, the fall in the birth rate and the average age of marriage, the mechanisation of household work and the rise in the level of education. The proportion of unmarried working women in the lower age groups will, however, probably decline as a result of the extension of the period devoted to education and training, the disappearance of the surplus of women over men and (once again) the fall in the average age of marriage.

Probably, therefore, there will not be any marked change in the proportion of women in the total gainfully occupied population; it is likely to remain around 23 per cent.[3]

Shortage of labour was very acute in large parts of the Netherlands in the period 1960-65 and the demand for women was even greater than that for men. The shortages of men and women alike were greatest in industry.[4] However, there were considerable differences between the various sectors of the economy and the various regions.

Local situation

Eindhoven is a highly industrial city in the south of the Netherlands, with some 180,000 inhabitants. Of the gainfully employed population, 61 per cent. work in industry, 38 per cent. in the services sector and 0.9 per cent. in agriculture.

In the industrial sector the metal industry is predominant (employing 82 per cent. of the industrial workers) and its share of the gainfully occupied population has increased most rapidly. Far the greatest proportion of the work force—both men and women—in this industry are employed by Philips, which has its headquarters in Eindhoven.

[1] See Instituut voor Psychologisch Markt- en Motievenonderzoek (I.P.M.): *Arbeid buitenshuis door vrouwen met gezinsverantwoordelijkheid* (1962); and a report with very much the same title by the Family Council, published by the Minister of Culture, Recreation and Social Work in March 1966.

[2] See *Advies over de arbeid van vrouwen in Nederland, 1966*, op. cit., pp. 12 ff.

[3] Ibid., p. 14.

[4] As in the United States, most working women (73 per cent. of the total) are in commerce and the services.

Between 1960 and 1964 the demand on the local labour market so much exceeded the supply that departures from Philips' operative work force could not be counterbalanced by recruitment of new personnel. Contrary to the needs of the firm the numbers of male and female manual workers declined in those years by 8.3 and 14.1 per cent. respectively, while the population of Eindhoven increased by 7.4 per cent.

It is thought that the decline at Philips was due to the attraction of the services sector, which until 1960 had been relatively underdeveloped for a town of Eindhoven's size and then expanded rapidly. This process, together with the decrease in " daily migration "—particularly of women and girls from the neighbouring parts of Belgium, which were rapidly being industrialised—largely accounts for the fall in the supply of female manual workers.

Besides such local phenomena there was the fact that the shortage of unskilled workers was also a national problem at the time. Whereas in 1936, 53 per cent. of boys leaving primary school went straight to work, in 1952 the proportion was 27 per cent. and in 1961 only 9 per cent. In Eindhoven itself only about 6 per cent. of primary school leavers became immediately available for employment in 1960. So, apart from the various short-term causes, the decrease in manpower and the resulting shortage have also a clear long-term, structural element; it is this structural element that requires undertakings to adjust their policies so that recruitment may be kept going at a time of rising standards of living.

Accordingly, it was clear that the time had come at Philips to devote more systematic thought to rendering methods of operation more attractive, having regard to the human motivations of potential employees. New ideas in the social sciences were studied and shaped into a new concept of work organisation, specifically adjusted to the Philips concern.

Small groups of workers and group autonomy, broadening the job and individual responsibility, shortening the " line ", participation and consultation—these are the main starting points that led to the new concept that has become familiar in the Netherlands under the name of " job structuring ".

The situation was certainly ripe for experiment. The decrease in the number of manual workers, particularly of the female sex, at Philips, Eindhoven, occurred at the very moment when activity in electro-technical manufacture was greatly expanding and the demand for women who could do precision assembly work was therefore also increasing fast. Sales departments were making plans which the production departments could not carry out for lack of personnel. No more women workers could be recruited from traditional sources. The only way out was to recruit married women—still a non-traditional source of labour in the Netherlands, as pointed out above.

A special committee at Philips, Eindhoven, had already worked out proposals for a personnel policy aimed specifically at that objective.

Having applied these proposals, the Philips telecommunications works at The Hague—also struggling against a chronic labour shortage—had had encouraging experiences with an unusual scheme of working hours, specifically devised to provide part-time employment for married women; the scheme was advertised and the interest shown exceeded all expectations. Thereupon it was decided to begin a similar experiment in the much less urbanised neighbourhood of Eindhoven and—in connection with it—to put ideas on " job structuring " into practice.

In the immediate vicinity of Eindhoven lies the satellite town of Veldhoven, a typical dormitory area of about 25,000 inhabitants including a comparatively large number of young families. Most of its working population consists of manual workers and clerks employed in Eindhoven. A small workshop for precision assembly of hearing aids, which was intended exclusively for the employment of married women and arranged —as regards lay-out, equipment and organisation—specially to suit them, opened at Veldhoven in 1964.

Hours of work

One of the practical reasons why more married women do not go out to work, in the Netherlands and elsewhere, is of course the fact that a full working week of 45 hours is in many cases very hard to combine with the duties of a housewife. It can be assumed that a good many more married women would be disposed to take jobs, so as to earn something extra, if there were an appropriate opportunity not too far from home and suited to their requirements. So the first two important requirements are proximity and convenient hours of work.

As regards the first, a basic reason for choosing Veldhoven was to bring the jobs close to married women and indeed to put them not more than 15 minutes, on foot or bicycle, from their homes. Another basic reason may be expressed as a negative: *not* to begin in the middle of Eindhoven's huge complex of factories, which might have scared off many women in advance. The opportunity of doing part-time work close to their homes, it may be assumed, reduces the preliminary obstacles, both physical and psychological, which married women must surmount before going out to work. A still better adjustment of working conditions to their situation can be obtained if the women themselves are enabled to fix the distribution of their own hours of work over the day and week. If so, they can arrange, for instance, for their working hours to coincide with the children's hours at school. Moreover, some may prefer to work in the morning, others in the afternoon. The Philips telecommunications works at The Hague had been the first, in 1961, to introduce this special freedom for married women to choose their own hours of work.

For reasons of economy in operation, however, it is necessary to lay down a lower limit for the number of weekly working hours, because

part-time work inevitably involves higher costs for the establishment. (The question of costs will be discussed below.) At the works in The Hague the minimum number of weekly working hours for married women was fixed at 30. When taking up employment there, women can indicate their preference regarding distribution over the day and week. An agreement is then made, which—if desired—can be modified later. Time off, without pay, can be taken in case of unforeseen occurrences—for instance if the husband or a child falls ill. The system turned out to be a success: absenteeism and turnover figures in the department concerned were clearly favourable in comparison with the other parts of the same establishment.

In the light of this success, the following scheme was worked out for Veldhoven. Working hours range from a minimum of 25 to a maximum of 45 in the week. An individual contract is made with each employee, stipulating the number of hours she is to work and their distribution over the day and week. Distribution over the week must be such that the employee is present for several hours on not less than four days. This is regarded as a necessary condition, both for the employer, so that the workshop can be efficiently organised, and for the worker, so that she may keep up reliable, uniform standards of speed and skill. Women with children can split their daily hours, doing some in the morning and some in the afternoon; those with no children may complete their hours of work without a break, either in the morning or in the afternoon.

The agreement can be reviewed every three months if the employee so wishes; but experience has shown that a well-conceived agreement seldom needs modification. Time off, without pay, can be taken for a good reason, such as the husband's or children's sickness or holidays.

In March 1967, 60 women were employed at the Veldhoven workshop. Forty-one (68 per cent.) do the minimum working week of 25 hours; 12 of these are mothers who have chosen their children's school hours as their own hours of work, so they attend for a certain time in the morning and a certain time in the afternoon. The other women do more than 25 hours a week, but only three work a full week of 45 hours. Morning work predominates; the average number of women at the workshop in the afternoon is about 28, but towards the end of the afternoon only about four are left. None needs more than ten minutes to go from home to work.

Recruitment, selection, engagement

In all its planning, and particularly in its plans for recruitment, Philips had to make due allowance for the prevailing view that a married woman's primary job and responsibility lie in her family, and to ensure that any woman recruited could remain a housewife first and foremost

and regard her career in part-time employment as merely a chance to earn additional income. A form of part-time service that would interfere with this primary responsibility had to be avoided—by the employer as much as anyone; this was realised from the outset. The widespread Dutch opposition to the employment of married women thus called for a careful policy of " mutually recognised different responsibilities ", including due social sense on the employer's part. The hours-of-work arrangement is one aspect of this; the methods of recruiting, selecting and engaging the married women are another.

The consequence was clear: if proximity to the woman's home was to be an objective, recruitment would have to be restricted, so as to preclude travel over long distances. Furthermore, contact had to be personal, even at the stage of recruitment, if a real mutual adjustment of responsibilities was to be brought about. For these reasons an original approach was chosen: married women in Veldhoven and the immediate neighbourhood received a letter presenting to them a workshop intended exclusively for married women; it referred to the attractive opportunity of earning extra income, close to one's home, at times chosen by oneself and in comfortable surroundings; and, so that these various points might be explained and the working hours and other conditions discussed with those interested, the letter offered a personal visit by the future female personnel officer of the workshop.

A reply-card was enclosed in the letter, on which name and address and the times preferred for the visit could be indicated. About 1,500 copies were sent out; some 120 replies were received. That was only about 8 per cent., but, even so, much more than had been expected. All those who replied were visited at their homes.

In the course of the interview—for the above-mentioned reasons of policy—the prospective employee's family situation was discussed in detail and there was joint consideration of the extent to which it would be proper, in the particular case, for the woman to accept part-time work and for the undertaking to employ her. Mothers with children up to the " toddler " age were strongly advised not to apply, because their family responsibilities would be hard to combine with a job outside the home. (There were no collective nurseries, and no plans to establish any.) Consequently, part-time employment away from home would be appropriate mainly *either* for married women who had no children yet *or* for those whose children were at school or even at work. In terms of age, the job would be appropriate for women between 20 and 30 and for those over 36.[1]

[1] See Viola KLEIN: *Employing married women* (London, 1961), pp. 11-13; *Women workers in a changing world*, op. cit., p. 93; *Advies over de arbeid van vrouwen in Nederland, 1966*, op. cit., pp. 19 and 35; and M. DUBLIN-KEYSERLING: " Gehuwde arbeidskrachten in de Verenigde Staten ", in *Sociaal Maandblad Arbeid* (Alphen aan den Rijn), 5 Nov. 1966, pp. 7 and 11.

As a result of the visits to their homes, about half the respondents had to be dropped because their domestic situation seemed, on closer examination, to be hard to combine with part-time employment.

The remainder, about 60 in all, were invited to come to Eindhoven for a test and a medical examination. Testing was necessary because special standards of vision, intelligence, accuracy and dexterity must be met for employment in precision assembly work on hearing aids. The workshop was started gradually, in small groups. At the end of 1964 about 85 married women were working here. By March 1967 the number had been reduced, according to plan, to about 60—simply by not making up the natural wastage. But rising sales are now obliging the management to think once more of a substantial increase in the number of workers.

Conditions of employment

Apart from the special system of hours of work, conditions of employment at the Veldhoven workshop are very much the same as at other Philips establishments in the Netherlands. The workers on part time are entitled to sick pay, holiday allowance, etc., in accordance with the number of hours worked by each. A woman on a 25-hour week receives 15 days' paid leave a year (ten days of collective workshop holidays and five days to be taken individually). Where necessary, an individual arrangement for regular leave can be made, by the hour if need be.

In addition, as already stated, it is always possible to take time off without pay, for instance during the school holidays. In practice, however, at those times some arrangement can often be made at home—perhaps with the aid of the child's grandparents—in order to keep down the loss of earnings. Similarly, in the case of special circumstances or difficulties in the household or family, arrangements for absence can be made after personal consultation.

Penalties are not imposed at the workshop. In serious cases of fraud or abuse—which seldom occur—the person responsible is confronted with her record. This is discussed with her, and she may be advised to leave. If so, she herself resigns.

Membership in the pension fund is voluntary, except for widows, who are obliged to join. Like all other Philips employees, each woman receives a " personnel card ", with which she can obtain all Philips products at the same reduced prices as apply to anyone working with Philips.

Like the working hours, however, two features more peculiar to this workshop are the " structure " of the work and its organisation. Before these are described, it will be useful to give further information about the married women employed at the workshop.

Who comes to work, and why?

The married women employed at the workshop are all wives of manual workers and junior office personnel. Though some of the women worked in factories before their marriage, according to the chief of personnel, surprisingly many have never done so but were formerly typists in offices, salesgirls in shops, or domestic workers.

The same was found in the case of the above-mentioned experiment at the telecommunications works in The Hague, where 150 married women are employed and fuller data are available. Of the 150, only 9 per cent. had had factory experience, 7 per cent. had been typists and 11.5 per cent. saleswomen, 17 per cent. had worked in households and 39 per cent. had had no previous occupation. As regards education, 60 per cent. had been to primary school only and 40 per cent. had had some further education or training thereafter (17.5 per cent. at domestic science schools, 13 per cent. at junior secondary schools [1] and 9 per cent. at training courses for hospital nurses, teachers, children's nurses and educators, dressmakers, or at girls' trade schools). The average age of the married women at The Hague factory is relatively high: 39 per cent. are between 30 and 40 years, 45 per cent. are between 40 and 50. Nearly 90 per cent. have children over 6. The additional earnings are presumably intended, in the first place, to enable the cost of the children's education to be more easily borne, a second motive being to permit more expenditure on " luxuries " such as cars or holidays.

At Veldhoven the average age is lower: the age groups above and below 35 years are more or less equally represented. Forty-four per cent. of the married women have no children; the other 56 per cent. have children over 6 (22 per cent. have only one, 24 per cent. have two, 8 per cent. have three, and 2 per cent. have four). The additional earnings seem to be intended for purposes different from those mentioned in connection with The Hague—more to purchase durable consumer goods for comfort in the home (refrigerators, washing machines, television). But these data are subject to modification, since an average age can fluctuate over the years.

An important reason why married women go out to work is to earn extra money without any sacrifice on the part of their families.[2] This emerges clearly from their recruitment interviews. Conditions of work specially adjusted to their personal situation, as well as the proximity, the external appearance and equipment of the workshop, the kind of

[1] Schools offering courses lasting three or four years, leading *either* to employment *or* to further specialised training in domestic science (in the case of girls) or in technical colleges (in the case of boys).

[2] See JEPHCOTT, op. cit., pp. 87 and 100; Elisabeth PFEIL: *Die Berufstätigkeit von Müttern* (Tübingen, J. C. B. Mohr, 1961), pp. 304 ff.; KLEIN: *Employing married women*, op. cit., p. 11; and F. ZWEIG: *The worker in an affluent society* (London, Heinemann, 1962), Ch. VIII.

work, the presence of other women in similar circumstances, are then factors that make it easier for them to decide on part-time employment.

Other non-economic motives also play a part. In the inquiry among women with family responsibilities, to which reference is made above [1], it was found that readiness to go out to work does not coincide with objectively ascertainable differences of income, indeed the inhibitions seem rather less serious in the case of people with higher incomes and more education: this fact indicates the existence of other important motivational components, such as an objection to being confined to domestic tasks, dislike of the relatively isolated position of many housewives, and the attraction of being able to engage in some useful and creative work besides one's household duties.[2]

With a view to further study, it would be interesting to know what other women or classes or groups of women are considered as points of reference when a person is deciding whether she will take on part-time or other work in addition to her duties in the home.

Work, organisation, remuneration

The work of assembling hearing aids is particularly suitable for women: it is light, and it requires dexterity, care and precision. Such assembly work can be organised in various ways. The production process includes seven distinct phases: mechanical assembly, electrical assembly, electrical checking, casing, acoustic checking, packing, and preparation for dispatch.

Before 1960, at Eindhoven, all hearing aids were made on the production belt, so that each worker had only one short cycle of operations to perform, lasting a few minutes. The small sets passed through a great many hands, with every chance of error, damage, etc. Consequently, in 1960 the Eindhoven factory changed its method and began to organise production on the basis of small groups of workers, with broader jobs for the individuals. Each woman now carried out several operations, used several tools and was thereby responsible for a definite phase of production. Between adjacent workers space for " provisional stocks " of material was provided, so that a woman had greater freedom to work at her own speed. This method required a longer induction period and made greater demands on the worker's intelligence; but it also rendered the job more attractive.

From the employer's point of view, the new method of organisation meant less waste. There were fewer waits, fewer disruptions due to delay, a rather larger output and a rather higher level of quality. Individual

[1] I.P.M., op. cit.

[2] See also R. O. BLOOD and R. L. HAMBLIN: *A modern introduction to the family* (London, 1961), particularly pp. 137-143.

tempo and productivity remained the same; the improvements were due to better organisation and were obtained not by obliging the employees individually to work harder in an unchanged setting, but by providing a different setting—a more varied job content, greater responsibility and the possibility, within limits, of working regularly at one's own preferred tempo.

Production in the Veldhoven workshop is organised on the same lines. The women work mostly in groups of ten to 12. Each group takes care of a particular kind of hearing aid and is responsible for all the phases of its assembly. Each member of a group performs several operations, which together make up a phase. Via the " provisional stock ", the article then goes on to the next member of the group, who puts it through the following phase. In this way the whole hearing aid comes visibly into existence within the group. Each worker's individual place in the group and in the process is also physically emphasised by providing her with her own assembly table, which remains unoccupied while she is absent. The assembly tables are so arranged that the particular groups can be clearly distinguished.

There is one group which only makes the wires and packs the hearing aids. A small group of six makes self-contained elements which have to be fitted into the apparatus. For purely technical operations (repair of machines, fault-finding, acoustic checking) and for certain others requiring more physical effort, three men are employed.

As an experiment, the married women in the workshop are paid a fixed wage on the basis of the hourly rate laid down by collective agreement. A certain minimum level of output, which can comfortably be reached, is agreed on, and this entitles each woman to her starting wage, which is laid down in the terms of the agreement. If she produces more, her wage is raised after a certain time to an agreed higher rate. The running-in period lasts rather longer in the case of such part-time work than otherwise, but after four to five months almost everyone reaches the usual level of output without difficulty.

The jobs are analysed and classified by degree of difficulty. Each class has its own wage scale, which offers the possibility of financial advancement through promotion from the initial (adaptation) level to " good " and " very good ". The classes are entitled " second assembler ", " first assembler " and " general assembler ". A newcomer starts as second assembler. If she learns her job fast and seems able to take on more difficult work she becomes a first assembler and so enters a higher wage class. If she masters other production phases inside and beyond the range of her own group, so that she is outstanding as an assembler and at times of stagnation or peak can come in as a replacement in any phase, she is promoted to " general assembler " in a still higher wage class. There are only a few of these at the workshop. Half the remainder are second and half are first assemblers.

It is the *average* level of output which determines earnings: the worker is thus free to work a little faster for a time, and then a little slower, without any fluctuations in her earnings. This freedom is ensured also by the system of " provisional stocks ", which lie between adjacent workers. Evaluation is based on criteria relating to tempo, quality, degree of difficulty, and conduct.

The system of financial advancement is an experimental move to introduce, even in the case of manual work, a fixed wage that can be adjusted after periodical review, as is done with salaried employees. It is an attempt to escape from the unit system. An account of the results and experience obtained under the new system will be found below.

As already stated, the broadening of the individual's job does not lead to any increase in individual productivity, because each person's task becomes more complex. Apart from the increased productivity of the establishment as a whole, due to system improvements, a clear advantage lies in the pleasant working atmosphere, the absence of nervous tensions, and the spirit of consultation, co-operation and comradeship that characterises relations among the personnel.

All this probably means more to the married women concerned than just a convenient opportunity of earning something on the side.

Group leaders

As already stated, the married women work in small groups of ten to 12 persons. Each group has a leader. A significant detail of the preparatory work for the Veldhoven experiment was the plan to allow the groups to choose their own leaders. However, this idea was subsequently dropped because of the demands that would have to be made on the holders of such posts, particularly in the initial phase: apart from authority, impartiality, patience and tact, the leader must also have a thorough knowledge of all operations done in the group and be able to teach and co-ordinate these operations. Until the married women had acquired some industrial experience, the chance that their choice of leaders would be determined exclusively by personal sympathies and antipathies was too great. So was the risk that the chosen leaders would not meet the functional requirements that had to be attached to the role of leader in this particular workshop. The results of inappropriate choice would have been harmful for the persons concerned, the groups and the whole workshop.

So the group leaders are selected by the management and the woman personnel officer, who knows the women and is aware of relations within the groups. The leader is always drawn from the particular group itself, so that in principle every member of the group has the same chance of becoming leader.

But the leader remains an assembler and spends part of her time at assembly work. She is a *working* group leader and only leads when the situation requires her to (for an estimated 60 per cent. of her working hours). She gives help and advice in difficulties, arranges for supplies of material in good time, instructs, regulates, co-ordinates and sees to it that the others can work on steadily without being disturbed. She arranges the contacts with other groups, with the chief of department and the manager, and looks after the interests of her members. The leader is the central point for communications in and concerning her group. Every day there is a short discussion between the foreman-assembler and all the group leaders. The chief of department meets them twice a week to discuss any matters affecting work and relations in the workshop as a whole.

The group leaders earn, on average, only 8 per cent. more than a second assembler and 4 per cent. more than a first assembler. They wear no distinguishing uniform or insignia. All these points help to keep the personal distinction between leaders and members of groups as small as possible and to facilitate informal, friendly co-operation.

Unlike other Philips establishments, the Veldhoven workshop has no works council. This is because, organisationally and administratively, it forms a department of an undertaking at Eindhoven. Moreover, according to the personnel officer, the need for a separate representative body at the workshop has not shown itself—no doubt, among other reasons, because of its small extent, the frequency of consultation along the " line " and the part-time presence of most of the people concerned.

As already pointed out, recruitment is carried out by means of a personal approach; this same approach is characteristic of relations within the workshop. We have seen that, when unexpected situations and difficultues arise, they are examined and a reasonable solution is sought through personal consultation. The attitudes and speech that are current also differ from those of an ordinary factory: whereas most women factory workers are addressed in the familiar form of speech [1] and by their first names, the married women at the Veldhoven workshop are addressed as " Mrs. " with their surnames and in the more formal style. This practice endorses their independent, responsible status. It may be a detail, but it is a significant departure from customary factory manners.

Results

The workshop for married women at Veldhoven has now been in existence for three years. What have been the results of this experiment, for the employer and for the workers?

[1] In Dutch there are two words for " you ", one more familiar, the other more formal.

Results for the employer

The average output per worker per hour is approximately the same as in the comparable department at Eindhoven, working full time. Nor is unwarranted absence any more frequent at Veldhoven than elsewhere.[1] On the other hand, the possibility of taking time off without pay during the school holidays is widely exploited at the Veldhoven workshop, which often finds itself 25-30 per cent. understaffed at such times; but leave of this kind is often voluntarily made good, at least to some extent.

The induction period is longer, i.e. more expensive, than in the case of full-time work. Self-determined time schedules and an individual workbench for each married woman involve additional expense, because the available workplaces are occupied, on average, not for 45 hours but for only 28 hours a week. Consequently fixed costs per workplace per hour are 60 per cent. higher in the Veldhoven workshop than in other establishments; but as these overheads (rent, light, heating, etc.) amount to only 5 per cent. of total costs, the increase is balanced by advantages at the social and psychological levels.

These and other cost-increasing factors are accepted and regarded as the price that must be paid for a workshop specifically arranged and made attractive for married women workers. The net result, the productivity, is judged by the workshop and the general management to be clearly favourable. After The Hague and Veldhoven, special workshops for married women have been opened in two other places, Oss and Woensel; and further plans are ready for future action. This is proof that, all things considered, Philips regard the experiment as conclusive and as a success.

Results for the married women

The following features are important to the employees as human beings within the organisation: each woman has her own place at the workshop—in the material, the organisational and the social and psychological sense. She makes a distinct contribution, in freedom and independence, to the manufacture of a final product, which she can see growing within her own working group; she does so as a member of a small group of similarly situated women; she receives a fixed rate of pay and can be promoted in rank and wage; the group leader is chosen from the group and differs little from the other members. Lastly, all questions affecting the woman's position and activity at the workshop are settled by consultation.

How is this situation viewed by the married woman worker herself?

[1] See Viviane ISAMBERT-JAMATI: "Absenteeism among women workers", in *International Labour Review*, Vol. LXXXV, No. 3, Mar. 1962, pp. 248-261.

Unless there are exceptional circumstances, the staff turnover will normally give a first answer to that question, particularly at an establishment like this one where the employees are mainly seeking a *supplementary* income. It may be assumed that a decision to leave will be more easily taken in such a case than if the worker has to live on her earnings alone.

Owing to the special circumstances of the initial or induction phase, the turnover in the first few years compared quite unfavourably with the normal level at Eindhoven. The average annual turnover for women working at the Philips establishments there is 23 per cent. At the Veldhoven workshop the turnover of married women was 30 per cent. in the first year, 29 per cent. in the second, and 26 per cent. in the third (1966).

Analysis shows that the difference was partly due to the difficulties of the initial phase and partly to the specific character of the personnel. Some of the turnover in the first few years resulted from the many changes and regroupings in the work and its organisation, the teething troubles from which new establishments inevitably suffer. (When a person's work is altered he often loses touch with it and may prefer to leave.) Secondly, it turned out that despite careful selection some women had been taken on in the early years who found great difficulty in doing precision assembly work even after an induction period. Of those who were evidently falling behind, some left, while it was possible to transfer others to Philips establishments at Eindhoven. Both these groups of cases increased the workshop's turnover.

However, a great deal of the turnover was due to household or personal circumstances—sickness or death in the family, pregnancy, change of residence, etc. As at The Hague, such reasons have accounted for about 65 per cent. of all departures. This part of the turnover may be regarded as inherent in the employment of married women, whereas the two kinds of separations mentioned above are characteristic of initial difficulties in a newly established workshop of any kind.

A more stable situation is at last being established. Technical and organisational problems are settled, the three years' experience has contributed to a better understanding of the subject, and more wisdom is applied in the prospection and selection of personnel. The expectation for 1967, based on results for the first five months, is that the turnover will be very much lower than hitherto and will not even exceed 12 per cent.

As to the opinions of the married women workers themselves, no direct and systematic investigation has been made. So far no such investigation has been necessary at the Veldhoven workshop: the staff consists of a relatively small number of persons, about whom, on the whole, more is discovered by the personal approach than is usually known in larger factories with a more impersonal atmosphere. Owing to the frequent personal contacts and the regular consultation at various levels in the workshop, opinions and observations soon find their way

through. In particular, the personnel department is well integrated with the workshop and can in general be relied upon to know what goes on among the staff. (Questionable though such an assumption may usually be in respect of larger establishments, in this special case it is justified.) The consistent impression obtained through the various internal channels of communication and of personal and group consultation is that relations in the workshop are positively good, pleasant and comradely.

In all the special circumstances, this impression is not surprising; and it is confirmed by the fact that, on the whole, married women can be recruited without difficulty for the Veldhoven workshop. After all, the kind of employment it provides has all the appearance of suiting their particular situation—and seems to do so effectively.

A scientific comparative study, embracing several such workshops and extending to the repercussions on family relationships, would certainly provide interesting further information on the matter.

Conclusion

The Veldhoven experiment may be regarded as conclusive. This is due not least to the fact that it was an experiment in the true sense of the word—a trial of something new.

As shown at the outset, the employment of married women is not yet a general phenomenon in the Netherlands. The characteristics that distinguish married women, sociologically, from other groups of potential workers are the following: they already have a recognised position in society, implying a certain role with its consequential expectations, responsibilities and activities—the role of spouse, housewife and mother; they have, as a rule, no immediate subjective economic need to be employed outside their homes; and, finally, there is opposition, stemming from traditional standards and opinions, against their employment. In other words: they are already " somebody "; they already have a job; they do not need to seek another away from home; and—in this country—it is not expected, or even considered proper, that they should do so.

Against such a background, what precisely is the social innovation that the Veldhoven experiment has sought to bring about? The answer may be stated thus: by modifying certain components of customary conditions of employment Philips have sought to make employment in this particular workshop better suited to the position and needs of married women (deliberately envisaged as a class of potential workers) so that such women may be more easily motivated to offer themselves as employees. Practically all customary conditions of employment have been modified—the geographical, the contractual, the economic, the organisational, the social and the physical components. In other words, the novelty is not that Philips should have turned to married women with an offer of employment in a pre-existing setting, but that it should

have turned to married women *specifically* with an offer of employment in a *modified* setting.

This approach, which may be called revolutionary in several senses, is indeed new to current patterns of industrial life. It raises various questions, first and foremost what the effects the new approach may have on the women concerned, their marriages and families. Only a deliberate investigation can provide an answer to that question; as already pointed out, such an investigation has not been made; so nothing about these particular effects can be stated as certain. However, on the basis of practical experience and theoretical knowledge, conjectures may be put forward on certain important aspects of the matter. The characteristic features of the Veldhoven approach make it reasonably probable that the individual married woman comes to a responsible decision regarding the compatibility of a part-time job with her family obligations; it is also probable that, in the Veldhoven setting, she finds it relatively easy to strike the right balance between her two roles. The proximity of the workshop to her home, the broad freedom to choose her own hours of work (both number and distribution), to determine her own working tempo and to take time off, the personal consultation and the possibility of making appropriate individual arrangements—all this offers scope for combinations to suit each particular case; and from the very beginning the worker receives the full support of the personnel service. Inquiries undertaken elsewhere into the implications of part-time work for married women reveal, in general, significantly more positive than negative experience; positive results may be expected *a fortiori* from a set-up such as that at Veldhoven.

Prospects

More generally speaking, what can be the implications of part-time work for married women, for their marriages and families, and for society?

If a married woman finds a part-time job that she can combine well enough with her family responsibilities, she will at the same time have obtained a second opportunity for contacts and connections and a second activity, which makes a change from her household duties; she will hear new opinions and see new things, get more information, gain experience and with it more ability and recognition. If she adjusts psychologically to having two roles, and also combines them efficiently, she will be integrated into society not only through her husband and family, but also in another and different way; and this will give her a more varied sense of her own personality. It is reasonable to suppose that, for many people, the result may be a greater chance to attain a higher level of general satisfaction. One cannot be sure that such a result will be reached; but several researchers have reported that, where it is reached, great value

can accrue, both for the woman herself and for her marriage and family, especially with regard to the children's upbringing.[1] For instance there are indications that part-time employment of the mother has a favourable effect on the position of the elder children in the family—such mothers seem better able to strike a good balance, as educators, between guiding their children and giving them independence in the later stages of their upbringing than mothers who do not work outside the home and see their educational task coming to an end. It is most important that further research be undertaken on the effect of part-time or other work by married women on their marital and family relations.[2]

A second question thrown up by an experiment like that made by Philips at Veldhoven is the important one of the effect on the undertaking itself and on its social policy. One can, of course, hold the view that such a special approach is initially motivated by pure opportunism: when there is a manpower shortage the employer has to adopt a more personal attitude, particularly towards people who, strictly speaking, have no need of him. It is quite true that in an industrial undertaking the temptation to be merely opportunist in social matters is inevitably greater if the objectives seen are almost exclusively economic.[3] If such is the case the market situation and the relative strength of the two parties have only to change to the worker's disadvantage and it is all over with the " personal approach "—which is then seen, retrospectively, to have been just a market tactic: human labour was treated as a mere commodity.

An up-to-date social policy, on the other hand, takes up the challenge of proving that it does not regard men and women as a commodity, as mere manpower, but sees workers as human beings with their own personality, entitled to be respected as such, and fit to bear responsibility towards the undertaking as a whole. That principle has been officially laid down, as far as Philips, Netherlands, are concerned, in a blanket agreement with the trade unions that can always be revised and renewed if necessary. The authors of a modern social policy in industry know that often it is not " what " but " how " which matters. Everyone understands that conditions in modern society are dynamic and that changes constantly occur, some to people's advantage, some to their disadvantage. As undertakings make more effective use of available up-to-date knowledge when determining their social policy, so, when big changes occur,

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[1] On this point, see, *inter alia*, JEPHCOTT, op. cit., pp. 169 and 179; ZWEIG, loc. cit.; Mary ZELDENRUST-NOORDANUS and G. M. VAN DER KROON: " Arbeid buitenshuis door vrouwen met gezinsverantwoordelijkheid ", in *Sociaal Maandblad Arbeid* (Alphen aan den Rijn), 21st Year, No. 1, 1966, p. 53; I. GADOUREK: " Tevredenheid in een welvaartsstaat in een tijd van overvloed ", in M. MULDER *et al.*: *Mensen, groepen, organisaties* (Assen, 1963), Part 2, pp. 298 ff. and 316; F. I. NYE and L. W. HOFFMAN: *The employed mother in America* (Chicago, Rand McNally, 1963); and A. KORNHAUSER: *Mental health of the industrial worker* (New York, John Wiley & Sons, 1965).

[2] See JEPHCOTT, op. cit., pp. 101 and 109; and ZWEIG, loc. cit.

[3] See E. FROMM: *Man for himself* (London, 1950), pp. 67 ff.

there will be a more thorough search for appropriate procedures of consultation and participation in decision making, since it will be understood that such procedures improve the content of the decisions made, modify their unilateral character, and render them more acceptable and effective. Structural changes in the relative strength of the parties will therefore always be a challenge and a test both of the honesty and of the effectiveness of the social policy in any industrial undertaking.

Another aspect of the above-mentioned second question thrown up by an experiment like that of Veldhoven relates to its effect on future management. The following may be said in this regard.

If the situation of abundance in the western world is consolidated and intensified, probably the structural tendencies indicated in the introduction to the present article will continue and increase in strength. What is now done as, and felt to be, an experiment in an unusual situation for a special class of workers may well turn out also to have had the function of a trial run for a new kind of approach that may soon need to be used on a wider scale for larger classes of workers. Opposing trends—such as shortage of manpower and shorter hours of work on the one hand, capital-intensive automation with an increasing need for continuous operation on the other—are pushing us towards new systems of shift work for all industrial employees. The new shift systems will necessarily comprise four, five, six or even more shifts in each cycle, so that the plant can operate continuously, while each individual has more leisure. Individuals will then be able to combine two jobs more easily, and such combinations are therefore likely to become a widespread phenomenon. Old conceptions of the monolithic undertaking will have to give way all the more rapidly to modern conceptions of the undertaking as a pluralistic whole with complex objectives that can best be served by co-operation between the component parts on the basis of their relative autonomy, these parts being the various functional sectors and interest groups each retaining its own structure and values.[1] Managers of industrial undertakings and other employing units must learn even more thoroughly that social policy in the broadest sense of the term is of no less crucial significance to the success of the unit than its technical and commercial policy.

Consequently, research and a scientific approach will be just as important in the preparation, testing, correction and development of a

[1] See, for example, F. FÜRSTENBERG: *Wirtschaftssoziologie* (Berlin, 1961), pp. 52 and 62; J. G. MARCH and H. A. SIMON: *Organizations* (New York, John Wiley & Sons, 1958), p. 121; M. HAIRE: " The concept of power and the concept of man ", in G. B. STROTHER *et al.*: *Social science approaches to business behavior* (Homewood, Illinois, Dorsey Press, 1962), p. 163; W. BROWN: *Explorations in management* (London, Heinemann, 1960), pp. 232 ff.; R. DAHRENDORFF: *Gesellschaft und Freiheit* (Munich, 1963), p. 161; W. S. ROSS: " Organized labour and management ", in *Human relations and modern management* (Amsterdam, 1958), p. 101; L. VAN OUTRIVE: " Deelname aan de macht in de onderneming ", in R. F. BEERLING *et al.*: *Arbeid, vrije tijd, creativiteit* (The Hague, 1964), p. 64; LIKERT, op. cit.; and F. VOIGT and W. WEDDIGEN: *Zur Theorie und Praxis der Mitbestimmung* (Berlin, 1962).

social policy as they already are at the technical and commercial levels.[1] The trade union movements in the various countries concerned will also have to reorient their policies substantially so as to improve their position vis-à-vis their members and the employers at a time of abundance and individualisation.[2] This will become necessary as larger groups of persons are enabled, within their own field, to compose individually appropriate combinations of part-time jobs.

A third question posed by the Veldhoven experiment is none the less intriguing because it is mentioned last. What may be the effect of the experiment for workers in general and for society? To the individual worker such a development brings the opportunity for more intrinsic freedom and independence while doing a given job with a given employer, and also the opportunity to play a more varied role in society and to achieve greater self-expression.[3]

It is not possible, within the limits of the present article, to go into the opportunities and risks of this perspective, which may only be described here as a challenge to the individual citizen to seek with fresh zeal an appropriate development of his personality, his ideas and his social and political responsibility.

This kind of social reality may already be discerned on the horizon as perhaps the most likely to emerge in the not too distant future.

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[1] See, for example, BENNIS, op. cit., pp. 179 ff.; and VAN ZUTHEM, op. cit.

[2] See W. ALBEDA: " Vakbeweging in een veranderende wereld ", in *Evangelie en Maatschappij* (Utrecht), Sep. 1960, Nov. 1960, May 1963 and Mar. 1965; P. J. A. TER HOEVEN: *Arbeiderprotest en vakbeweging* (Leiden, 1963); I. P. VAN LEERDAM, J. G. LULOFS, C. POPPE and H. WALLENBURG: *Vakbeweging in beweging* (Meppel, 1964); C. POPPE: " De vakbond in het bedrijf ", in *N. I. O. Bo-kwartaalbericht* (Breukelen), 8th Year, No. 32, 1966, p. 15; M. VAN DE VALL: *De vakbeweging in de welvaartsstaat* (Meppel, 1963), pp. 102-103; and *Vakbeweging en onderneming* (The Hague, A.N.M.B.-Publikatie, 1965), pp. 18 ff.

[3] See, for example, R. F. BEHRENDT: *Dynamische Gesellschaft* (Berne, 1964); FOURASTIER, op. cit.; E. FROMM: *The sane society* (New York, Rinehart, 1956); and E. ZAHN: *Leven met de welvaart* (Amsterdam, 1962).