SKILFULNESS: "TASK ORIENTATION" AND "COPING" WITH WORN-OUT EQUIPMENT AT THE IRISKI TOFFEE FACTORY NEAR MOSCOW

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Abstract: The article is devoted to a conceptual analysis of the concept of "skilfulness" in the labour of industrial workers. On the basis of a critical reading of Ingold's "taskscape" theory, a series of questions is addressed. Can the labour of industrial workers be creative? Must one be skilled in order to work with industrial equipment? What part does the wearing-out of equipment play in the process of industrial labour? The empirical basis was formed by material from a year's participant observation at the Iriski Toffee Factory. The conclusion is drawn that, as a result of the equipment's disrepair, the work of the toffee factory operatives requires a greater involvement and the use of creative skills (Gorz's "savoir-faire"). Thus, disrepair encourages creativity in the operatives' labour and makes their skills more unique. Their skilfulness in the labour process is determined by how skilfully they are able to "cope" with disrepair and maintain uninterrupted work in the packing cycle. On the one hand, all this makes them more involved in the work, but on the other, more "exploited", since their skilfulness remains unnoticed by the management, as does the universal disrepair of the factory infrastructure.

Keywords: industrial labour, skilfulness, Ingold, creative labour, ethnography of labour, taskscape, task orientation.

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Skilfulness: "Task Orientation" and "Coping" with Worn-out Equipment at the Iriski Toffee Factory near Moscow

The article is devoted to a conceptual analysis of the concept of "skilfulness" in the labour of industrial workers. On the basis of a critical reading of Ingold's "taskscape" theory, a series of questions is addressed. Can the labour of industrial workers be creative? Must one be skilled in order to work with industrial equipment? What part does the wearing-out of equipment play in the process of industrial labour? The empirical basis was formed by material from a year's participant observation at the Iriski Toffee Factory. The conclusion is drawn that, as a result of the equipment's disrepair, the work of the toffee factory operatives requires a greater involvement and the use of creative skills (Gorz's "savoir-faire"). Thus, disrepair encourages creativity in the operatives' labour and makes their skills more unique. Their skilfulness in the labour process is determined by how skilfully they are able to "cope" with disrepair and maintain uninterrupted work in the packing cycle. On the one hand, all this makes them more involved in the work, but on the other, more "exploited", since their skilfulness remains unnoticed by the management, as does the universal disrepair of the factory infrastructure.

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Introduction

The Iriski Toffee Factory[1] is part of a transnational company producing confectionery; it began in Ivanovsky district, Podmoskovye region, at the end of the 1990s, literally in the middle of the potato fields. The settlements in the area, a fairly widely dispersed type of "village agglomeration", used to be parts of collective farms. The few private houses and low-rise blocks of flats were inhabited by collective farm workers, and there were acres of farmland all around.[2]

The equipment used at the factory was delivered at the very beginning of its operation and has not been changed since. Before that, in the words of the workers, it had come to the end of its usefulness in a factory "abroad", and having been written off there, it was brought here.

For about ten years the equipment was used in accordance with all the instructions: limits on how fast it could work, repairs and inspections at the proper time, replacement of parts, etc.

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[1] The name of the factory and the name of the district where it is situated have been changed. The ethnographical research was conducted with support from the Khamovniki Fund for the Support of Social Research (Moscow) and within the framework of my work with the team of the Laboratory for the Methodology of Social Research (led by D. M. Rogozin) at the Russian Academy of the National Economy and State Service from August 2016 to August 2017 at the sweet factory, where I was first a packer and then a grade 1 operative in the packing workshop.

[2] This paragraph is taken from [Pinchuk 2021].

In 2013, there were serious changes in the staff of the production wing of the factory, and in particular the top management were completely replaced. The authoritarian paternalistic management style, as Simon Clarke called it [Clarke 2004], was replaced by a neo-liberal one. The new leadership's basic task was the optimisation of processes, the main result of which was a speeding up of production by at least 150 % [Pinchuk 2018]. In the three years since then[1] the factory equipment has not been modernised, not been renewed, not had any thorough overhaul, and as a result the general disrepair of the equipment, and of the factory infrastructure overall, has become part of the factory workers' everyday working environment.[2] The workers, who had previously been used to informal, personal relations with their line managers and the top management, could no longer understand what was required of them, disapproved of the latest changes and tried to master the "skill" of working with worn-out equipment (skilfully "coping" with it). The management, who were absorbed in the optimisation of all processes, demanded both that the speed of production should continue to increase, and that the quality of the product should be maintained, without noticing how the quality, rhythm and régime of work had changed for the workers.

One of the top managers of the factory, with whom I discussed the situation towards the end of my fieldwork, noted that they (the managers) were forced to work to short-term goals: "We can't plan far ahead, we have to show visible results in six months or a year."[3] Therefore, the decisions that they take, starting from the current situation, are connected with increasing the speed of most processes.[4]

This article is devoted to an analysis of the work practices of female operatives at the Iriski Toffee Factory with the accent on the quality and content of their work, which have changed against the background of the disrepair of the equipment. Relying on a critical understanding of Tim Ingold's theory of adaptation to the environment (taskscape), I aim to answer a series of questions. Can the work of packing operatives be creative?[5] Is it necessary to possess

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1 To 2016, when the fieldwork was carried out.

2 I might remark that I was too late to see the time when the factory equipment was in good repair, but my work colleagues told me about it quite eloquently: "We worked in peace and the machines went like clockwork: you came for your shift, switched the machine on, off it went, every half-hour you checked the toffees and changed the packaging, and carried on watching it" (from the author's field notes).

3 From the author's field notes (May 2016).

4 Felix Stein has shown convincingly that it is not only the workers who are forced to adapt to accelerating production processes. Business management consultants also become hostages to short-termism: not only do they "teach" the managers the correct and optimal acceleration of processes, they are themselves caught up in unceasing haste [Stein 2018]. In that case "speed" becomes a competitive advantage, as it is for the top management directing enterprises in Russia.

5 The concept of "creative work" is used in this study to mean a number of features of the factory workers' work, such as the need to invent new, non-formalised approaches to interaction with the

skills in order to pack toffee? What part may be played in the work process by the disrepair of the equipment?

The source for the analysis is the material collected during a period of participant observation at the factory, where I worked for a year as a packer and as a grade 1 operative.[1] I begin with the idea that the workers' actual labour is part of their life-activity. Just as people "accommodate themselves" to their environment (taskscape) in other areas of their life, and develop particular skills and abilities, the workers in the workshop "accommodate themselves" to the industrial environment and develop the ability to interact with the equipment. However, I add to Ingold's theory the concept of "skilfulness" to denote the highest degree of such an "accommodation".

I put forward the thesis that the work of the operatives at the Iriski Toffee Factory, having undergone qualitative and quantitative transformations against the background of the disrepair of the equipment, contains aspects of creative labour requiring the worker to engage his/her subjectivity in the process of carrying out tasks, and forming particular skills and abilities to react to the breakdown of the equipment, while there are no precise régimes, rules or procedures for carrying out the tasks themselves.

In the first half of the article, Ingold's theory of the taskscape and its dynamics are examined in detail. Then the nuances of E. P. Thompson's critique of the conceptualisation of the pre-capitalist and early capitalist era are presented. Ingold concludes that "task orientation" does not vanish with the advent of capitalist production, but, on the contrary, it remains at its very heart, in the process of interaction between workers and equipment. Then I show that in "modern" Russian capitalism the production process, conducted using worn-out equipment, becomes possible thanks to what I call the "skilfulness" of the factory workers in the article.

The invention of the taskscape (the theory of accommodation to the environment)

1990. Manchester University. The forty-two-year-old Professor Tim Ingold is reading an introductory lecture on social anthropology to the whole intake of new students. His main task is to explain what this discipline, new to the students, represents. "Social anthropology

industrial equipment, swift and independent decision-making in the process of work, the impossibility of meeting work aims without involving the worker's personal qualities such as quick reactions, attentiveness, inventiveness and observation (the worker's subjectivity). For more detail on the peculiarities of creative labour in a post-industrial society, see, for example: [Grigorova 2016].

[1] For more detail about the research project — the ethical and methodological peculiarities of the fieldwork, specifics of working with the material, the costs of the methodology of the ethnographical study of labour, and also of collaborative work in projects of this sort — see the chapter "Participant observation: the researcher's work and the peculiarities of fieldwork" in [Pinchuk 2021].

is the study of social life in all its variety. But social life," he continued, choosing his words, "since it is the ocean in which we all swim, is not something we can readily grasp" [Ingold 2017: 16]. Ingold wondered how he could instil into the students the special kind of apperception that would allow them to see the social not as an add-on to their separate existence as individuals, but as the very matrix from which all human life springs? Then he remembered having once seen a painting by Pieter Bruegel the Elder, entitled *The Battle Between Carnival and Lent* (1559). It is easy to imagine the teeming market square of a mediaeval Flemish town, where everyone is busy doing something: selling fish, pouring something out of a barrel from a first-floor window, drinking wine from a pitcher, rolling on the ground, making waffles, playing musical instruments. In the lower part of the picture, we see a ritual mock battle between a stout man in bright clothing riding a wine barrel, who personifies Carnival, and another, very thin, simply dressed, with a pale, bluish face, personifying Lent.[1]

For his next lecture, Ingold prepared a slide of Bruegel's painting, and had it projected on the screen of the lecture theatre in front of the assembled mass of students: "There, that is social life, and it is what we social anthropologists study!" [Ingold 2017: 18]. He went on to explain to his students that, with the landscape (the trees, the houses, the square) as a background, living, unceasing activity is depicted. Every character in the picture is shown "in the midst of activity", busy with what Ingold calls their "task". These "tasks" are not carried on in isolation, individually, but on the contrary, all the characters in the scene are in uninterrupted interaction with each other and with the urban "landscape".

In 1993, in his seminal article "The Temporality of the Landscape", Ingold introduces the term "taskscape", literally "the space / scene of the interdependent carrying-out of tasks" [Ingold 1993]. Taskscape — the theory of accommodation to the environment — is an idea for the conceptual explanation of social life that Ingold developed over several years. He tries to answer the ontological question of man's existence in a world where, as he discovered, it is impossible to draw a firm frontier between "the environment" and "society".

While working on the text of "The Temporality of the Landscape", Ingold was constantly looking at a reproduction of another of Bruegel's paintings hanging in his office — *The Harvesters*.[2] In

[1] The subject is based on a holiday that used to be observed in mediaeval France and the Netherlands on the last day of Carnival, before the beginning of Lent. The central event of the holiday was a staged mock battle between Carnival and Lent.

[2] A picture by Pieter Bruegel the Elder, painted in 1565 as part of the cycle *The Seasons*. The picture probably shows late summer.

comparison with the first picture, this shows a scene of serenity and peace: a wheatfield on a hill, people sitting on bound sheaves are eating under a tree during a break from their work, while some of the peasants carry on reaping in an unhurried manner.

On both of Bruegel's paintings we see how in production and consumption, labour and recreation, movement and rest, both the people themselves and the environment in which they live are sustained and produced. Looking at Bruegel's *Harvesters* we see not only the reapers, not only the peasants having their lunch, but also the workman asleep beneath the tree. Ingold remarks that there is no activity without rest, and in this sense, sleep is a part of life-activity in the inhabited environment, alternating with harvesting or selling fish [Ingold 2017: 21]. Therefore "the task", according to Ingold, need not only be something directed towards "efficiency", towards completion or towards a result demanded from outside. But on the other hand, it is not something that a person does only of his own rational will, but something that he chooses for himself with a purpose, based on his preferences or needs. "The task" in the context of the theory of accommodation to the environment is everything that a person's life-activity depends on: cutting wheat, sleeping under a tree, eating on the sheaves, selling fish in the square, riding a wine barrel.

A long time has passed since Tim Ingold introduced the concept of the taskscape. After this time, he began regarding it as a neologism and recognised that he had made a rather unappealing contribution to the fashionable tendency to think up new words ending in "scape" [Ingold 2017: 26]. Once this word had helped Ingold to answer the question he was faced with at the beginning of the 1990s, he no longer needed it to solve his theoretical problems. However, during the time when he was still developing the concept of the taskscape, he wrote the article "Work, Time and Industry" [Ingold 1995], which is important in the context of research into labour. In the text that follows I shall, firstly, reconstruct the theory of accommodation to the environment, since such a perspective answers the conceptual tasks of my research, and secondly, make an attempt to develop this theory at the point of interpreting the degree of "accommodation" to the environment in the example of the packing operatives, using the concept of "skilfulness".

Ingold's reconceptualisation of "task-orientation"

The text of Tim Ingold's "Work, Time and Industry" is organised as a critique of the work of the Marxist historian E. P. Thompson[1]

[1] The critique and reinterpretation of Edward Thompson's concept of work-discipline in industrial capitalism neither began nor ended with Ingold's article. For example, John May and Nigel Thrift had

on the transformation of the attitude to time at the transition from the pre-industrial to the industrial period [Thompson 1967]. Thompson raises the question of the relation between capitalist and non-capitalist time, and introduces the concept of "task-orientation" and "time-orientation" [Konovalov 2019]. He demonstrates that the transformation of time as a social category in the history of industrialisation is a cornerstone of the disciplinary organisation of modernity, and also of the spatial division of the spheres of labour and home, work and life, the social and the personal. Industrialisation leads to a transition from time oriented on the task to "clock time", on which the separation between "work" and "life" is built. The primary supposition in understanding these processes is that of labour as a marketable commodity.

Since life in an industrial society is concentrated, from the point of view of activity, in the sphere of consumption, the worker sells his labour as a commodity, and spends the money he earns on maintaining his consumption. That is, the division into spheres of "work" and "life" is formally conditioned by the logic of capitalist production [Ingold 1995: 10]. By selling his labour to his employer, the worker is alienated from the process of production, and his "social life" takes place where his actions are conditioned by a set of social roles (in consumption using the money he has earned), and not by the requirements of his employer. Accordingly, no social relationships at the workplace are in themselves a result of co-operation in the process of work: they exist in parallel with co-operation due to participation in the working process.[1]

The logic of Ingold's critique of the transition from task-orientation to time-orientation is built around a detailed examination of Marx's labour theory of value. Since consumer value is formed on the basis of the qualitative features of the commodity, and exchange value on the basis of the equivalence of one commodity to another in the process of economic exchange, the first is qualitative and heterogeneous, and the second is quantitative and homogeneous. The first

shown that with the transition to industrial capitalism there were no sharp changes in the organisation of space and time within the organisation of production in enterprises [May, Thrift 2001]. See also [Glennie, Thrift 1996].

[1] The point is that when Marx in his early work *Lohnarbeit und Kapital* speaks of "social relations", he means a certain abstraction — relations of production, economic relations — which he examines through the prism of capital and scales up to the level of society as a whole. "In der Produktion wirken die Menschen nicht allein auf die Natur, sondern auch aufeinander. Sie produzieren nur, indem sie auf eine bestimmte Weise zusammenwirken und ihre Tätigkeiten gegeneinander austauschen" [In production, people do not simply have an impact on nature; they have an impact on each other. They only produce because they work together in a certain way and are engaged in a system of exchanging activities with each other] [Marx 1961: 407]. Ingold, though, views the taskscape as a field of social relations in the qualitative sense: it is the framework which includes activity that is not only, and not so much directed towards economic exchange, i.e. that does not necessarily have any economic value (whereas for Marx any social activity has an economic value).

is given in situational contexts, the second is discovered independently of the context and depends only on the conditions of the exchange. As a result all commodities are measured in the same units — monetary units. Likewise labour, once it has become a commodity, becomes "abstract social labour" expressed in hours and monetary units (it does not matter how the labour is done and what it produces, what matters is how much labour is expended and for how long it continues). This is why in "capitalist time" time-orientation becomes the new form of relation to labour: the work itself is the number of hours, where the value of each hour is equal to a specific number of monetary units.

But Ingold points out that the work of a tailor is comparable to the work of a potter, when both are expressed in the value of an hour, only if these activities can be extracted from the matrix of social relationships in which they acquire their specific form [Ingold 1995: 12]. Only real activity that takes place in the context of the social matrix is what Ingold calls "a task". To carry out tasks one requires certain technical skills and qualifications, i.e. experience in that activity, but one does not require a precise codification of rules and procedures that must be observed in order to reach the "goal" towards which the task is directed [Ingold 1995: 10]. This "goal" itself arises as a result of a person's involvement in the course of their social life and cannot be artificially prescribed, just as there cannot be any precise instructions for attaining it. Ingold's "task" is the result of a person's life-activity within their environment, and it arises "naturally" in the process of any activity whatsoever.

Accordingly, Ingold's thesis is as follows: even in capitalist societies where labour itself becomes "abstract" and is measured quantitatively, there remains a "task-orientation" within that labour as an intrinsic part of people's interaction with each other and with their environment. This is precisely what he calls "the taskscape".

"Skilfulness" in labour in the taskscape

If I were to draw a picture to illustrate the never-ceasing life of the industrial workshop of the sweet factory in the middle of a shift, it would look like this.

A spacious grey room with high ceilings and no windows. Several large machines, one behind the other, in a row. Beside each one women in their white work clothes are frozen in action: one is folding packing paper, standing on a bench so as to insert the packaging into the mechanism quickly, without stopping the machinery; another is caught running from one part of the machine to another so as to be in time to avert as many failures as possible; a third is frozen with a long spatula beside the feeder belt, trying to

straighten out the flow of packed toffees; a fourth stands beside the third, helping her to sort out the spoilt toffees that have been damaged by failures in the machinery.

One of Ingold's basic arguments is that a person, as a social subject, always remains within the social matrix, including at the place of work. The worker's labour is part of his life, and that labour, in just that form in which we find it, is written into that social material in which the worker has lived hitherto and in which he continues to live now. This "material" is the process, the life-activity, that forms the basis of the worker's entire life. Even if that labour is written into the framework of a capitalist society, while the worker, to use Marx's terminology, is selling his labour as a commodity, he remains a social subject, i.e. he continues his life-activity and can even retain one degree or another of autonomy at his workplace.

Machines, work equipment, and the rest of the infrastructure, says Ingold, are significant components of the immediate environment. The worker is not just a faceless, alienated adjunct to the equipment. By analogy with how a person "copes" or interacts with the world, developing particular skills and abilities, as a worker he "copes with" the equipment, acquiring by experience skills and abilities that are only relevant to that immediate activity [Ingold 1995: 18–19].

In the process of the mechanisation of production, one may observe constant attempts to create newer and newer machines that by means of their algorithms will be able completely to replace the skilled worker. But such attempts are inevitably unsuccessful, because in every case the human being "copes" with that technology and acquires the relevant skills in the process [Sigaut 1994: 446]. And here what was said before about "tasks" is revealed in a new, more concrete sense: in this case it is the skilled handling of the industrial equipment in the process of coping with it [Ingold 1995: 19].

Working with machines is part of the worker's own process of production as a skilled social agent. But when skilful handling of them of this sort reaches a certain expressed form, when it determines a certain level of coping with the equipment, that is what I call "skilfulness". Skilfulness is the highest degree of "adaptation" to the equipment, in the process of work, a particular form of coping with the "tasks" with which the worker is faced in the midst of his or her activity, which is productive labour.

Labour at an industrial enterprise is often described as monotonous and maximally alienated, particularly when it is part of the classic Ford production line (see, for example: [Beynon 1973; Herzog 1980; Glucksmann 2009]). On the one hand, a worker on the production line at a Ford Motor Company factory is not required to take any decisions, he can simply "switch his brain off", as Huw Beynon's

informants described their work.[1] But, at the same time, he must learn how the conveyor belt works: "I place the car off the hoist," says one of Beynon's informants. "With the line you've got to adapt yourself to the speed." As first, he says, the job used to get out of hand, because he was going too fast or too slow [Beynon 1973: 128]. Miriam Glucksmann notes similar nuances in conveyor belt work in her research on female operatives at a large factory producing parts for car engines in London: the workers learn to adapt themselves to the temporal organisation of the conveyor belt: "There was a red light at the head of each assembly line — each time it flashed, every minute and a half or so, the first woman put out a tray containing two UMOs onto the conveyor belt to begin its journey down the line. […] Each time the light flashed, the person in front sent on the tray she had just finished, pushing it over the stick so that it would move along the line again, and you sent yours on to the person behind you, so there would be a regular flow of trays" [Glucksmann 2009: 9]. In this case, although the work was monotonous, exhausting and completely mechanical (or so it seemed at first sight), the degree to which the workers were "adapted to their environment" is revealed precisely in how well they had mastered the temporality of the conveyor belt. The workers observed with good reason that not everyone could cope with work of that kind: some of them left while they were still in their probationary period [Beynon 1973: 124]. In other words, it was what Ingold calls "adapting to clock-time". Although the workers' labour at the factory is ordered by clock-time, "task-orientation" is preserved in this "coping" with the temporality of production. "Clocks," says Ingold, "are a ubiquitous feature of the environment of people in industrial society, who have to learn to cope with them, just as they must cope with other kinds of machines" [Ingold 1995: 20].

Citing the research on railwaymen by Fred Cottrell [Cottrell 1939] and Frederick Gamst [Gamst 1980], Ingold remarks that the organisation of work without incidents depends of the railwaymen's skill in carrying out particular actions (such as working the points) "on time". It is not just, and not so much, a matter of a specific time by the clock, but rather a feeling for the moment. Knowing how to "feel the moment" and perform whatever action is necessary is indeed "skilfulness".

Using my ethnographical data collected during a year's fieldwork at the Iriski Toffee Factory, it is likewise possible to illustrate the female operatives' mastery of the industrial equipment in the process of "coping" with the temporality of the packing machine. What is

[1] Beynon even tells a story, probably humorous, that circulated amongst the workers, about a man who left the Ford factory to work at a confectionery factory, where he had to separate red and blue items. He soon left, because he "couldn't take the decision-making" [Beynon 1973: 119].

important here is the task, which is to insert the packing material — the toffee wrappers and the boxes — at the right time. The operative's "skilfulness" starts the moment the roll of wrapping material is changed. Here too it is important not to miss the "right" moment. This moment is about ten seconds after the old roll is finished. The operative is constantly watching the paper in her peripheral vision, and making a rough estimate of how long it will last at the speed the machine is going. When the width of the cylinder of paper is much reduced and is practically the same as that of the cardboard core on which it is wound, the operative has to "catch" the moment: it is not worth changing the paper if it is still wound round the core even only a few times. The machine must be stopped when the end of the wrapping material, taped onto the core, is visible. The roll of wrapping paper is attached to the outside of the machine, so it is easily visible. But the paper itself is so thin that the untrained eye can hardly tell how much time is left before the roll is finished. Cutting off the paper too soon means throwing away perfectly good packaging. The management does not prescribe any penalty for this, but it is considered unacceptable among the operatives themselves. The ability to "catch the moment" is the sign of a well-qualified operative.[1] Meanwhile a "missed moment" is announced to the whole workshop by the loud ripping sound that ensues when the end of the paper is torn off the core and pulled into the mechanism, which chews it up, and the machine stops. "She's missed the paper," her colleagues at the neighbouring machines conclude: even against the background of the constant noise made by the equipment, that ripping sound cannot be mistaken for anything else.

All these examples of workers' labour in different spheres demonstrate the particular feeling for time that is intimately linked with particular tasks and the acquired skills necessary to perform them.

"Skilfulness" in workers' labour cannot be reduced to the ability to "sense the moment" or to "cope" with "clock-time" in the temporal organisation of the conveyor belt, the packing machine or the railway. In his ethnographical research into metalworkers at a machine-making plant, Roman Abramov concludes that "it is not so much the level of knowledge that is important" in a foundryman's work "as practical experience, 'know-how' and intuition, which the workers themselves call 'a feeling for metal'. In the end, the percentages in the final alloy after working depend on the care and experience of the foundryman: too high a temperature in the furnace will burn off the metal, too low a temperature reduces the quality" [Abramov 2012: 12]. In this case "a feeling for metal" is just such

[1] This is evident not from any direct articulation of the criteria that make an operative "qualified", nor from any declaration of them in normative documents or regulations, but arises as the informal assessment of the work of one or other operative by their colleagues in the course of work.

an evident marker of "skilfulness" as "a sense of the moment". In both cases such uncodified skills and abilities determine the worker's personal and professional identity, and also, most probably, construct an informal hierarchy within the collective: workers with the best "feeling" in the examples given, with more precise actions, are recognised as more competent.

In one way or another the whole experience of "coping", the interaction with the industrial equipment directly forms the worker's "skilfulness", developing new skills immediately in specific work activities. The skilfulness of operatives working with well-functioning equipment is displayed in another practice: the actual changing of the roll of wrapping paper. Here precision and care are important: the end of the paper is cut off the core in such a way that the tape that attaches it remains on the core, a thin strip of double-sided adhesive tape is evenly stuck to the end of the paper, a new roll is placed on the spool, and the end of the new roll is evenly attached to the double-sided tape on the end of the paper that has already been introduced into the packing machine. The smooth functioning of the machine depends on how precisely and carefully the operative has changed the paper: if it has not been done accurately, the machine will certainly "chew up" the paper and stop.[1] Everything will have to be done all over again.

However, being "more competent" or possessing "skilfulness" will not always mean recognition in the workplace or outside it. This is probably how "alienation" can arise — not so much from the actual fact of taking part in "forced" labour (in Marx's words) but against a background of an absence of recognition for one's "skilfulness". Workers rarely perceive their labour through the prism of "skilfulness" or even of "coping" with the equipment, that is, see themselves as qualified workers who possess particular unique skills. They may perform, among others, quite complex operations, which are not part of their original functions, but see the ordinary course of their work in this, not realising how important their abilities are [Clément 2003].

Working with equipment presents many tasks that demand particular abilities and involvement from the worker and engage his/her attention and perception — that is, they assume the worker's participation in the interaction not only at the physical level (as a unit of the workforce), but also at the mental and emotional levels. Moreover, as Ingold asserts, it is by the acquisition of skills in mastering the equipment that workers achieve the possibility of

[1] It was quite a while before I stopped "missing" the paper and learnt to change the rolls in such a way that the machine ran smoothly. Quite a lot of wrapping was wasted while I was being taught. I often had to have recourse to the aid of older, more experienced colleagues, who showed incredible skill in coping with the most complicated consequences of changing the paper wrongly or at the wrong time.

resisting their employer's régime of control (see, for example, [Hamper 1992]), or even of managing their work time in such a way as to remain "capable" of interacting with their equipment [Roy 1959].[1]

Workers' skilfulness in the process of "coping" with worn-out equipment

Overall, what one might call the theory of accommodation to the taskscape, according to Ingold, gives us the possibility of reconceptualising wage labour, incorporating it into a wider framework[2] of a person's life-activity in uninterrupted interaction with other people and with the environment. When a worker in the workshop is working on the equipment, or interacting with the factory infrastructure, or is in contact with his colleagues in the workshop, he is in the field of adaptation to the environment just as much as he is within his own household. The process of "accommodating oneself" to the production process, or "coping" with the equipment, acquires new aspects in the situation where the equipment is wearing out and its workings become irrythmic. Such conditions create new tasks for the workers, and as a rule these tasks are also creative in character, and require gumption and inventiveness from the workers — what André Gorz called "savoir-faire" [Gorz 2004: 5].

In the situation when the industrial equipment is working properly, the operatives' work consists mainly in controlling the equipment and supervising its workings. The elements of such work are quite clear and predictable: switching the machine on, checking how the equipment works, replacing the packing material, checking the quality of the product, cleaning the machine. All these working operations are prescribed in the instructions for use of the equipment and present no difficulties to the qualified worker who has been assigned to work on the machine. Undoubtedly, as Ingold remarks, even at this stage the worker cannot be regarded as a simple adjunct to the equipment fulfilling clearly regulated operations. Interaction with the equipment supposes in principle certain practical skills and qualifications, since it is essential to have some knowledge of the machine's construction, its mechanisms, faults and peculiarities. However, in the modern Russian context, when the disrepair of the equipment is not a unique situation, but is the consequence of

[1] Donald Roy writes about how a small group of factory mechanics "survived" and kept themselves from "going mad" in the context of prolonged monotonous work. Roy describes his work as "a grim process of fighting the clock, the particular timepiece in this situation being an old-fashioned alarm clock that ticked away on a shelf near George's machine" [Roy 1959: 160].

[2] And at the same time, doubtless, into a "narrower" one, since the "environment" in this case is conceptualised at the level of everyday involvement in the surroundings, whereas the theory of alienation is formulated by Marx at the level of an analysis of capitalism as a political economic system.

a particular system of management to minimise expenses and maximise profit, the workers' labour acquires a creative component, which is important not of itself, but within the framework of the improvement of a worker's own skilfulness, which has in turn a social dimension (being the best operative on the shift or the "experienced operative" who can cope with the most complicated machine).

The packing equipment at the Iriski factory on which the operatives work directly has in most cases the following configuration: a large conveyor belt, along which the product is conveyed to the coffer of the first packing machine; the first packing machine, where the toffees are wrapped in their wrappers and the ends sealed; a small conveyor belt along which the wrapped toffees are conveyed to the second packing machine; the second packing machine, where the wrapped toffees are put into boxes; a small conveyor belt, along which the boxes of wrapped sweets are transferred to a large conveyor belt. After that, the toffees leave the operative's immediate area of work and are sent off to the final stage of packing, the machine that wraps the boxes in cellophane and puts them into large crates.

This process, from the first large conveyor belt to the second, is uninterrupted. More accurately, it is supposed to be uninterrupted: and that is the operative's task. The more worn-out the equipment is, the more unforeseen hitches there are in the process. The operatives in their turn are engaged in correcting and eliminating these hitches. Everything has to be done quickly and in good time. Now it becomes even harder to keep track of the roll of paper: the operative is constantly engaged in the process of getting rid of various faults, trying to avoid them, and running all round the outer edge of her workspace.[1] The two packing machines in the worker's workspace are positioned one behind the other. While solving problems on one machine or on the small conveyor belt, the operative risks missing something that has happened elsewhere.

In the attempt to eliminate or minimise hitches in the equipment, the operative is inevitably faced with the necessity of "inventing" ever new solutions, involving her entire subjectivity in the process: attentiveness, quick reactions, cleverness, inventiveness, etc. The product gets stuck in the mechanism or on the conveyor belt, the wrappers are not sealed tightly enough, leaving gaps, the gluing system regularly fails, as do the feeders installed on the equipment. The most easily described "invention" is perhaps the piece of cardboard inserted in the right place and at the right time under the small conveyor belt that supplies the sweets, to make them travel more smoothly along it. But to determine what the "right time" and

[1] A distance of about 4–5 m².

"right place" are requires a series of experiments demanding time and resources. It all begins with the discovery by the operative that the sweets wrapped in their individual wrappers travelling along the conveyor belt to the second machine keep falling off it onto the floor. First the operative most probably spends a few seconds observing the process in an attempt to see how regularly the product falls off. Then she checks that everything is as it should be with the product: perhaps the corner of the wrapping on every fifth, say, toffee is not properly sealed, and catches on a protrusion on the edges of the belt at a particular place and falls on the floor. If the wrapping has been properly applied, the edges of the belt must themselves be checked. In the situation when there are no problems found here either, the operative's attention shifts to the belt itself. Here it may be discovered that at a certain place the belt is barely perceptibly lifted up and knocks the toffees off. One solution may be a piece of cardboard: it is folded several times and placed in such a way as not to impede the motion of other parts of the conveyor, but at the same time to let the product travel more smoothly over the problem section.[1] Undoubtedly, the algorithm or order of operations that I have described so precisely above can hardly be executed in such a consistent manner in practice: solutions are sought on the spot, in the midst of activity, not on the side, where one might stand and think, nor in advance (it is practically impossible to predict a problem of this sort). These minor faults are all unique cases that could, if one wished, be broken down into groups, and certain strategies for solutions in specific cases could be worked out, but it is impossible to provide oneself with solutions in advance for the whole process of the work: the machine breaks down differently every time.

A second quite simple example of "invention" concerns the work of the feeders on the second packing machine. The mechanics of their work are more or less as follows: as the product enters the machine, the feeder counts the required number of sweets, the small conveyor belt stops for a few seconds and the selected product is moved to a special place where the cardboard shell of the box is already situated, glue is dribbled onto the edges of the cardboard (this is also controlled by the feeder), then the edges of the cardboard are joined together, and the box containing the required amount of product leaves the machine. If the glue does not fall onto the edges

[1] One detail seems to be missing from this step-by-step process of decision-making — calling the technical service, who would get rid of the problem by some more suitable technical means. Since the process of optimisation concerned not only making the production cycle more intensive, but also certain decisions regarding personnel, the number of mechanics had been cut. The operatives found themselves in a situation where they had to learn how to make small "adjustments" to the equipment with whatever they had to hand, without waiting for the mechanics. There is a further problem that worn-out equipment is not so easy to repair, it can only be adjusted for a short time, after which there will inevitably be another breakdown.

of the box, the box is not glued together, and as it leaves the machine it gets stuck, tears, and all the product is tipped out under the machine. Certainly, it is first necessary to check the gluing system itself: whether the glue is dripping out, how much of it, whether it is accumulating somewhere in the mechanism, what is stopping the edges of the box from sticking together, etc. If there is nothing wrong with this part of the work, it is worth tracing the whole journey of the cardboard shell from the moment when the packing material is placed in its special tray. Based on how the feeders are working, the mechanism places the cardboard shells on soft, firm "rails", along which it proceeds to the place where the product is put in it.

Suppose the operative is faced with this problem: several boxes have not been glued together properly. Her attention turns immediately to the corner of the cardboard: is there glue there? If there are traces of glue, that means that it is not the glue system that is at fault. Frequently, as the operatives themselves determine, the problem is with the packing material: the quality of the cardboard shells varies. So that the worn-out equipment can work rhythmically, sometimes these cardboard shells need to be folded in a particular way. This is the point at which "inventiveness" begins. It is hard to see with the naked eye where exactly the unwanted fold in the cardboard is, so as to correct it, and so the operative will "bend" the cardboard again and again, until it is achieved that the glue falls onto its edge in the ideal manner. Frequently, these experiments take from a few minutes to half an hour or longer: you gently fold one edge of the shell in one direction, put it in the machine, see that it is not folded enough in the opposite direction, fold it that way... and so on until you get what you want. Experienced operatives always advise observing the machine and "bending" the cardboard at the very beginning of the shift in accordance with how the mechanism is working. All this can only be understood in the process of experience and experimentation. As the operatives say, when the equipment was working before it was worn out, it was not so sensitive to the quality of the cardboard.

Processes of this sort alternate with other breakdowns in the operation of the equipment that need not demand specific inventiveness on the part of the operative, but do demand quick reactions, attentiveness, cleverness and observation. None of these breakdowns ought to occur in the working of the equipment in automated production, but by the fact that they do occur they demand a much greater involvement by the operatives in the process of interaction with the equipment than before.[1] Without

[1] In the words of David Graeber, the operators of worn-out machines are "duct-tapers", the creative element of whose work is "the result of a glitch in the system that no one has bothered to correct" [Graeber 2020: 84]. The "inventions" in this case are the "duct tape" with which the operatives try to maintain the work of worn-out equipment.

the engaged and anxious participation of the operatives and their creativity and know-how, the equipment is not capable of maintaining its rhythm.

As a result of the disrepair if the equipment, the work of the operatives at the sweet factory demands great involvement and the use of creative skills ("savoir-faire"). In this way, disrepair is the reason why the operatives' work is "creative" (the reason for their inventiveness) and makes their skills more unique. The operatives' skilfulness in the work process is determined by how skilfully they fulfil the tasks of "coping" with disrepair and maintaining the uninterrupted work of the packing cycle. On the one hand all this makes them more involved in the work, but on the other it makes them more "exploited", because their "skilfulness" is not recognised by the management, just like the universal disrepair of the infrastructure.

Recognising the workers' skilfulness

When, as an example of his research, Ingold examines the work of railwaymen, where it is essential to develop "a feeling for time", or rather "a feeling for the right moment", he concludes that "[i]n the eyes of the management […] the railroad system was conceived as a total technology which, in principle, should run with the predictability of clockwork, and employees were treated merely as means to that end" [Ingold 1995: 24]. But, as he goes on to show, the railwaymen's experience, their skill at "feeling the moment", were included, and acquired significance, within a task-orientated approach to the practice of running trains. And here, if we are to speak of the workers' skilfulness in their activity in "mastering" the equipment, an important factor is how this whole system of interaction between workers and machines is seen from the perspective of those who direct it.

Although work at the Iriski Toffee Factory is regulated according to a spatio-temporal régime (the beginning of the shift, the place of work, and the time and place of breaks are clearly prescribed), the actual content of the work is only partially covered by norms. The instructions, the lists of rules and other formal documents are seen by the operative as a sort of starting mechanism for the work of the machines, to which at the same time the leading role in the production process is ascribed. Many of the management decisions concerning the organisation of labour or reassignment of staff are taken precisely from the perspective of this inaccurate idea of the realities of the production process. The workers' formal qualifications are determined by the grade assigned to them, while an operative's actual "skilfulness" is determined by her ability to "cope" with the equipment. Grades are achieved by passing the qualifying exa-

minations, the questions in which are based on those normative acts and instructions that probably had more significance when the equipment was new and worked without a hitch.

Ingold writes that employers invariably look on workers as units of the workforce. This particularly concerns large enterprises where the actual task-orientated labour is not visible, and as a result the fact that as the workers interact with the equipment they develop special skills and are involved in the process as subjects is not taken into account. This employer's "blindness" is probably one of the problems of organising productive labour. This may in particular result in substandard decisions regarding personnel. In the case of the sweet factory, the managers relied on various out-of-date normative documents to determine the number of workers needed for one or another task, never allowing for the disrepair of the equipment, which seriously intensified the process of work for the workers and led to an increase in the number of defects in the product.

Karine Clément called work to maintain worn-out equipment "hidden". Her research at the beginning of the 1990s took place in Russian enterprises, and she noted that "the equipment is most often on the verge of wearing out. It only works because the workers have learnt how to keep it in working condition over many years of servicing it" [Clément 2003: 64]. Clément too calls this "imaginativeness" and "inventiveness", adding that such "hidden" work "is not remunerated and is in fact not recognised". At the same time the workers themselves do not realise that they are engaged in "hidden" work, and that this "hidden" work demands of them individual efforts and specific skills. Accordingly, says Clément, they feel insignificant in the production process and do not possess "professional self-assertion" [Clément 2003: 67].

Conclusion

In her analysis of contemporary capitalism, Laura Bear formulates the concept of "a sense of workmanship" based on the ethics and affects of work. It "emerges in relation to and out of the act of labour within a specific timescape," and is the domain of experience that "is generated from the act of attempting to reconcile various technological devices, temporal rhythms, and representations into a productive act of work" [Bear 2014: 74]. It is not expressed in formal qualifications or technical skills, but in the ability to be flexible in respect of external challenges, the ability to adapt to them [Bear 2012]. The concept of "a sense of workmanship" is in this case based on a critical reading of Veblen, in particular his *The Theory of the Leisure Class*, where he sums up his thoughts on "the instinct of workmanship" [Veblen 2007]. For Veblen the "instinct of

workmanship" is "a taste for effective work. […] Wherever the circumstances or traditions of life lead to an habitual comparison of one person with another in point of efficiency, the instinct of workmanship works out in an emulative or invidious comparison of persons. […] In any community where such an invidious comparison of persons is habitually made, visible success becomes an end sought for its own utility as a basis for esteem" [Veblen 2007: 16]. In my understanding, relying on the theory of accommodation to the environment, "workmanship" has a different character: it is not a question of the specific competitive efficiency of actions. In the case of the work of the operatives at the sweet factory, their skilfulness determines how they carry out the tasks that arise spontaneously in the course of working with worn-out equipment. It is the apogee, the highest degree of "accommodation to the environment", formed when the workers' savoir-faire ("fait d'expériences et de pratiques devenues évidences intuitives et habitudes" [comprised of experiences and practices that have become intuitive and habitual] [Gorz 2010: 23]) combines with their experience of work with specific equipment in a state of disrepair. It is important that practically all the workers in the packing shop of the sweet factory possessed, to one degree or another, the skill of "coping" with worn-out equipment, since otherwise it would have been impossible to hold down the job of an operative: skilfulness is an intrinsic part of such work, at least against a background of disrepair.

It is, in the end, skilfulness at mastering the equipment that favours the formation of a personal and collective professional identity. The numerous, constant breakdowns of the machine for the workers at the factory were a point of solidarity, an opportunity to evaluate and appreciate their own labour and that of the other members of the team [Pinchuk 2021: 122].

The foundrymen at the machine-making factory call their labour "creative", justifying this, among other things, by the necessity of having intuition in their work [Abramov 2012: 19]. The packing operatives, even though one of the important qualities that allow them to do their work is inventiveness, do not define their work as creative. This side of their labour goes unnoticed outside the working collective, notwithstanding their skilfulness and creative ability to interact with worn-out equipment, averting or repairing its failings.

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Bibliography

Abramov R. N., 'Metallurgi na mashinostroitelnom zavode: ocherk professionalnoy subkultury' [Metallurgists at a Machine-building Plant: An Outline of the Professional Subculture], Romanov P. V., Yarskaya-Smirnova E. R. (eds.), *Antropologiya professiy: granitsy zanyatosti v epokhu nestabilnosti* [Anthropology of Professions: Limits of Occupation in the Epoch of Unstability]. Moscow: Variant, 2012, pp. 153–174. (In Russian).

Bear L., 'Sympathy and Its Material Boundaries: Necropolitics, Labour and Waste on the Hooghly', Alexander C., Reno J. (eds.), *Recycling Economies.* London: Zed Press, 2012, pp. 185–203.

Bear L., 'For Labour: Ajeet's Accident and the Ethics of Technological Fixes in Time', *Journal of the Royal Anthropological Institute,* 2014, vol. 20, pp. 71–88.

Beynon H., *Working for Ford.* Harmondsworth: Penguin, 1973, 409 pp.

Clarke S., 'Chisto sovetskaya forma kapitalizma? Menedzhment kholdingovykh kompaniy v Rossii' [A Very Soviet Form of Capitalism? The Management of Holding Companies in Russia], *Zhurnal sotsiologii i sotsialnoy antropologii*, 2004, no. 7 (3), pp. 20–45. (In Russian).

Clément K. [as Kleman K.], 'Neformalnye praktiki rossiyskikh rabochikh' [Informal Practices of Russian Workers], *Sotsiologicheskie issledovaniya*, 2003, no. 5, pp. 62–72. (In Russian).

Cottrell W. F., 'Of Time and the Railroader', *American Sociological Review,* 1939, vol. 4, no. 2, pp. 190–198.

Gamst F. C., The Hoghead: *An Industrial Ethnology of the Locomotive Engineer.* New York: Holt, Rinehart and Winston, 1980, 156 pp.

Glennie P., Thrift N., 'Reworking E. P. Thompson's Time, Work-Discipline and Industrial Capitalism', *Time and Society,* 1996, vol. 5, no. 3, pp. 275–299. doi: 10.1177/0961463X96005003001.

Glucksmann M. A., *Women on the Line*. London: Routledge, 2009, 232 pp.

Gorz A., *Wissen, Wert und Kapital: Zur Kritik der Wissenökonomie*. Zürich: Rotpunktverlag, 2004, 140 SS.

Gorz A., *The Immaterial.* Chicago, IL: Seagull Books, 2010, 209 pp.

Graeber D., *Bredovaya rabota: traktat o rasprostranenii bessmyslennogo truda* [Bullshit Jobs: A Theory]. Moscow: Ad Marginem, 2020, 440 pp. (In Russian).

Grigorova Y. V., Tvorcheskiy trud v postindustrialnom obshchestve: sotsialnofilosofskiy analiz [Creative Work in Post-industrial Society: Sociophilosophical Analysis]: Candidate's thesis. Perm, 2016. (In Russian).

Hamper B., *Rivethead: Tales from the Assembly Line.* New York: Grand Central Publishing, 1992, 260 pp.

Herzog M., *From Hand to Mouth: Women and Piecework.* Harmondsworth: Penguin, 1980, 154 pp.

Ingold T., 'The Temporality of the Landscape', *World Archaeology,* 1993, vol. 25, no. 2, pp. 152–174.

Ingold T., 'Work, Time and Industry', *Time and Society,* 1995, vol. 4, no. 1, pp. 5–28. doi: 10.1177/0961463X95004001001.

Ingold T., 'Taking Taskscape to Task', Rajala U., Mills P. (eds.), *Forms of Dwelling: 20 Years of Taskscapes in Archaeology.* Oxford: Oxbow Books, 2017, pp. 16–27.

Konovalov I. A., 'Rozhdenie vremeni dlya truda: retseptsiya raboty Edvarda Tompsona o vozniknovenii kapitalisticheskogo temporalnogo soznaniya' [Time for Labour and Its Origins: E. P. Thompson on the Temporality of Industrial Capitalism], *Zhurnal sotsiologii i sotsialnoy antropologii*, 2019, vol. 22, no. 1, pp. 193–224. (In Russian).

Marx K., 'Lohnarbeit und Kapital', Marx K., Engels F., *Werke*. Berlin: Dietz-Verlag, 1961, Bd. 6, SS. 397–423.

May J., Thrift N., 'Introduction', May J., Thrift N. (eds.), *Timespace: Geographies of Temporality*. London: Routledge, 2001, pp. 1–46.

Pinchuk O., '"Nestandartnye" usloviya truda zhenshchin na proizvodstve: opyt vklyuchennogo nablyudeniya' ["Non-standard" Working Conditions for Women at Work: The Experience of Participant Observation], *Interaktsiya. Intervyu. Interpretatsiya*, 2018, no. 15 (10), pp. 24–40. (In Russian).

Pinchuk O., *Sboi i polomki. Etnograficheskoe issledovanie truda fabrichnykh rabochikh* [Foulups and Breakdowns. An Ethnographic Study of the Labour of Factory Workers]. Moscow: Khamovniki Fund for the Support of Social Research; Common Place, 2021, 208 pp. (In Russian).

Roy D., '"Banana Time": Job Satisfaction and Informal Interaction', *Human Organization,* 1959, vol. 18, no. 4, pp. 158–168.

Sigaut F., 'Technology', Ingold T. (ed.), *Companion Encyclopedia of Anthropology: Humanity, Culture and Social Life.* London: Routledge, 1994, pp. 420–459.

Stein F., 'Selling Speed: Management Consultants, Acceleration, and Temporal Angst', *PoLAR: Political and Legal Anthropology Review*, 2018, vol. 41, no. S1, pp. 103–117. doi: 10.1111/plar.12256.

Thompson E. P., 'Time, Work-Discipline, and Industrial Capitalism', *Past and Present,* 1967, no. 38, pp. 56–97.

Veblen T., *The Theory of the Leisure Class.* Oxford: Oxford University Press, 2007, 304 pp.