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# Knowledge as a weapon. Parisian workers quantitative surveys and epistemic theory (1840–1848)

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## ABSTRACT

This article examines the characteristics of workers' knowledge and the role of knowledge in workers' struggles for better living conditions in the mid-nineteenth century. Based on quantitative surveys published between 1840 and 1848 by two Parisian workers' newspapers, *La ruche populaire* and *L'atelier*, it shows not only that workers produced their own surveys in order to make the deterioration of their situation visible, but also that they used innovative methods. The article will first present the workers' tradition of producing quantitative knowledge, which dates at least as far back as the end of the eighteenth century, and was the background to the surveys of the 1840s. Second, it will be argued that the workers' surveys published in *La ruche populaire* and *L'atelier* were used mainly, but not exclusively, to counter the hegemonic discourse and the optimistic rhetoric of the ruling classes, who were claiming that the economic situation of workers was improving. Finally, this article uses the comments made by worker surveyors or members of the newspapers' editorial boards on their knowledge practices and methodology to prove the existence of a specific workers' epistemology and philosophy of the sciences. As will be shown, they formalized a 'standpoint theory,' thus anticipating Karl Marx in the *Economic and Philosophic Manuscripts of 1844*.

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## Introduction

In December 1840, cabinetmakers in Paris published an article about their living conditions in the Parisian workers' newspaper *L'atelier*. By way of preamble, they recounted a scene one of them had witnessed. The worker was at a party one evening with people he called 'of a higher status than himself,' who were talking 'freely about the workers and the business of the day.' Scandalized by the strikes then raging in the French capital, a gentleman described as 'fat, greasy' and tastefully dressed expressed his surprise that 'these scoundrels of workers' were complaining when 'they had never earned so much money, they had never been so well paid and so happy.' This brief anecdote served as a narrative introduction to a quantitative survey carried out by the cabinetmakers on their own living conditions, with the aim, as they wrote, of giving the ruling classes, 'a very clear answer, without any great effort at eloquence.' The statistics produced by the workers and presented to the newspaper's readers were intended to counter the discourse of the bourgeoisie, to counter their beliefs or ignorance with facts ('Situation présente des ouvriers ébénistes,' 1840, p. 29, my translation). This survey was not an isolated one. It was part of a wider phenomenon that saw the workers' press, which was

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emerging in France in the 1840s, publishing numerous surveys of various kinds, all carried out by workers. This production of knowledge about living and working conditions took place during a period of intense workers' mobilization in France, characterized by a move away from insurrection and by the numerous discussions about labor organization (Gribaudo, 2014, pp. 333–334).

Workers' knowledge, in all its forms, remains an underinvestigated field. While recognizing the diversity of forms of knowledge and the diversity of the social groups that produce it, the history of knowledge is still primarily concerned with 'dominant forms of knowledge' (Burke, 2000, p. 17), that is, with 'academic, official and legitimate knowledge' (Daunton, 2005, p. 9). Indeed, knowledge is seen as being, with rare exceptions, an elite practice (Guillemain & Richard, 2016, pp. 211–212). When artisans or workers are studied, it is primarily in order to find out whether they have received knowledge, and if so how, and not whether they have produced it (see, e.g. Burke, 2012, pp. 235–237; Thompson, 1984). Lawrence Goldman's analysis of the statistics produced by a network of British artisans in the 1820s is an important exception (Goldman, 2022, pp. 81–100). However, these statistics do not really form part of Goldman's history of sociology and seem to be an anomaly. In general, when the literature refers to knowledge produced by artisans, it is more likely to be what is sometimes called 'implicit knowledge' or 'practical knowledge,' that is, know-how related to everyday life, especially work (Burke, 2000, p. 14; Fages & Lamy, 2021, p. 192). Fabrice Bensimon, for instance, has recently demonstrated the impact of British workers' technical skills on the industrialization of continental Europe (2023).

On the basis of the twenty quantitative surveys on the living and working conditions of workers published between 1840 and 1848 by the Parisian workers' newspapers *La ruche populaire* and *L'atelier*, this article will show that some workers or groups of workers did produce 'formalised' (Daunton, 2005, p. 9) knowledge, statistics in this particular case. Statistics create knowledge by aggregating and counting units (be they goods, individuals, wages, alcohol consumption, or acts of violence) that were previously distinct. This practice involves several technical or 'formal' stages, such as drawing up categories and questionnaires, collecting and compiling data, interpreting the results, and communicating them (Cussó & D'Amico, 2005, pp. 23–24; Espeland & Stevens, 2008, pp. 410–411). The existence of statistics produced by workers to support some of their struggles went almost unnoticed in the literature on the history of statistics. Having noted the specific features of statistics as a way not only of producing knowledge but also of acting on the physical and social world, this approach has long been dominated by the unquestioned idea that 'action' refers solely to *state* action – whether the statistics are produced by the state itself or by private actors producing data in order to enable state intervention – in particular the ambition of the state to dominate and control the population (Bruno et al., 2014, p. 7; Desrosières, 2010, p. 9). Historical research has therefore long focused mainly on state statistical institutions (see, for instance, Mespoulet, 2008; Perrot & Woolf, 1984; Touchelay, 1993).

However, the use of statistics as an instrument of social struggle has been attracting the attention of sociologists for some years now. This line of inquiry is part of a broader renewal of the history of statistics and surveys, which is increasingly interested in the non-state actors in quantification practices and in the dynamics at the origin of their production, rather than viewing them as emanating solely from state power and solely for state power (Karila-Cohen, 2010; Labbé, 2019). In the field of the socio-history of quantification, the term 'statactivism' was coined about a decade ago to refer to 'all statistical practices [...] used to criticize and emancipate oneself from an authority' (Bruno et al., 2014, p. 8; see also Bruno et al., 2012, Mennicken & Espeland, 2019, p. 231; for an example of statactivism analysis, see Salle, 2014). But while sociology has gradually been taking an interest in this specific form of 'militant knowledge' (Lamy, 2018, p. 2, my translation), the history of these uses remains largely unknown. Only a few studies of the use of statistics by labor movements exist (Hirsch, 2023; Mysyrowicz, 1969; Reick, 2023; Rigaudias-Weiss, 1936, pp. 158–170). They reveal a strong interest on the part of the workers' movements in the production of social knowledge, and the existence of forms of quantification within workers' movements. But since they did not seek to

situate these productions and integrate them into a bigger picture, they left workers' knowledge on the margins of the history of knowledge.

Situated at the intersection of labor history, history of knowledge and the socio-history of statistics, this article seeks to place workers' knowledge in the context of the formation of modern social sciences (Porter & Ross, 2003) through an analysis of its form, its characteristics, and its role in workers' struggles. The aim is thus to provide workers' movements with their rightful place in a history of knowledge that truly considers a diverse range of knowledge practices. Following the methodology of the socio-history of quantification, it will look at who produced these surveys, why the workers' press published them, and how the data were gathered, with regard to both the methods used to collect them, and the categories employed in collecting them (Cussó & Piguet, 2023, p. 117; Desrosières, 2008, pp. 10–12). As this article will show, the workers' knowledge produced was part of a labor tradition dating at least as far back as the end of the eighteenth century, and was innovative in its form, its object of analysis, and its epistemology. It also contributed to the emergence of the statistical movement and, more generally, of empirical sociology in France.

### Workers, knowledge and the labor question

*La ruche populaire* and *L'atelier* were both started in Paris in the 1840s against a backdrop of economic crisis and strikes. They were part of a wider phenomenon described as an 'explosion of the workers' press' (Gribaudo, 2014, pp. 355, 361, my translation). *La ruche populaire* was founded in December 1839 by Jules Vinçard, a Saint-Simonian worker. Subtitled 'A Workers' Newspaper Written and Published by Themselves,' it was published monthly until December 1849. Vinçard, a craftsman who practiced various trades, including carpentry and baking, had joined the Saint-Simonist movement in the 1830s (Maitron, 2009). As he later explained in his autobiography, he decided to launch a propaganda newspaper for this current of socialism, with the aim of providing a forum for the 'demands and aspirations of the working class' (Vinçard, 1878, p. 179, my translation). He produced the paper with Vanostal, a typographer, while the treasurer was Henri Fugère, a Fourierist engraver (Maitron & Dubos, 2009; Vinçard, 1878, p. 181). Several typographers joined the editorial team, but soon left to found *L'atelier*, according to Vinçard because they did not share the Saint-Simonian orientation of *La ruche populaire* (Vinçard, 1878, p. 181). The first issue of *L'atelier*, a paper 'addressed to workers by workers' ('Introduction,' 1840, p. 1), came out in September 1840. It too appeared monthly until it was forced to cease publication by a new tax on periodicals introduced by the French government in July 1850. The editorial committee was made up of skilled workers – mechanics, hatters, locksmiths, and especially typographers – working in small workshops (Jarrige & Lauricella, 2015, pp. 227–229; for more information on this newspaper, see Cuvillier, 1954).

*La ruche populaire* and *L'atelier* published and circulated twenty-four workers' surveys on the living and working conditions of various trades in the French capital, as well as of silk weavers in Lyon, between 1840 and 1848. Most of them (twenty) contained statistics, i.e. aggregated figures,<sup>1</sup> on wages, living standards, unemployment, and occupational hazards. The surveys were carried out either on the initiative of workers who were not members of the editorial board (as at *La ruche populaire*), via a questionnaire drawn up by the newspapers (as at *L'atelier*) or at the invitation of the editorial board without a questionnaire (at *La ruche populaire*). Contrary to what is usually claimed (Geerkens et al., 2019, p. 23; Rigaudias-Weiss, 1936, p. 158), however, these surveys were not the first attempt by the working classes to use statistics in their mobilization activities. In fact, they had been a recurrent feature of workers' mobilisations at least since the end of the eighteenth century (Piguet, 2024).

Between 1779 and 1789, for example, silk weavers in Lyon drew up six workers' budgets, that is a tabulation of the earnings and expenses of the members of a representative individual silk workshop, intended to provide objective information about the living condition of workers. And from 1799 to 1819 cotton handloom weavers in and around Manchester used not just workers' budgets but also large-scale collection of data on comparative wages, numbers of workers,

unemployment, and part-time work in order to convince the British Parliament to protect their salaries by law (Piguet, 2024, pp. 40–140). Both movements produced statistics to demonstrate to various levels of government, and sometimes also to public opinion, the inadequacy of their wages and the deterioration in their living conditions. Not only did the workers produce their own economic and social knowledge, but they also did so at a time when figures were relatively out of favor. In Great Britain, the interest in figures shown by the development of political arithmetic in the seventeenth century did not reappear until the statistical movement of the 1830s (Innes, 2009, p. 109). Studies of statistics in France place the birth of the statistical movement at the end of the 1820s and estimate that between the end of the Empire – the era of the development of regional statistics in France (on this topic, see Bourguet, 1988; Perrot & Woolf, 1984) – and the work of Charles Dupin from 1827 onwards, belief in the usefulness of figures, like their use, stagnated (Savoie, 1994, p. 13; Ycart, 2016, pp. 161–194).

The emergence in Great Britain in the late 1810s and in France in the early 1830s of a workers' press – that is, newspapers run and published by workers, the content of which was largely in their own hands – marked a new stage in the production of statistics by members of the growing workers' movements. In 1818, the radical weekly *The Gorgon* published a survey on the wages of striking cotton spinners in Manchester. It also contained calls for the production of statistics on wages, working hours, illnesses, working habits, and mortality rates in the various trades ('Notice to Journeymen and Labourers,' 1818/2003, p. 166). In September 1830, *L'artisan*, a Parisian workers' newspaper, launched an appeal for information to be collected by 'the workers of every state' to help 'the entire class of artisans' (No title, 1830, [n. p.]). However, during the short existence of the paper the editors managed to publish only one survey on printer-typographers entitled 'Statistique de la profession des ouvriers imprimeurs, en 1830' ('Statistics on the profession of printer in 1830') (1830, [n. p.]). The call for surveys and the circulation of statistics were extensions of the use of data in discussions or confrontations with the authorities which had existed since at least the 1770s. What was new was the use of surveys and statistics for the working classes themselves, whether to emancipate workers by providing them with knowledge or provoking intervention by the authorities, or to instill a sense of solidarity through awareness of workers in similar situations (on the effects of the circulation of information and statistics on workers' solidarity, see Delalande, 2019, p. 104).

Thus, through statistics and surveys workers were producing 'militant knowledge,' that is, 'knowledge embedded in processes of political reversal of situations of domination' (Lamy, 2018, p. 2, my translation). In this way, they contributed to the emergence of a new form of the 'empirical study of society' in the eighteenth century (Innes, 2009, p. 111). As Joanna Innes argues, until that period, statistics were produced mainly, if not exclusively, to prove 'the wealth and power of the State, conceived as deriving, in significant part, from the size and wealth of the social aggregate on which it rested.' From the eighteenth century onwards, however, alongside what Innes describes as 'statistics of power,' another type of empirical study developed. Its distinguishing feature is that it was not 'aggregative' but 'disaggregative.' As she explains: 'It focused on local and social difference, on the health and prosperity of communities and members of different social groups – in general, on the distribution of happiness and pain across the social body' (2009, pp. 111–112).

But the contributions of workers to the history of statistics and knowledge extend beyond participating in the emergence of a specific type of survey. They are notable also for their focus on a novel object of analysis: wage conditions. With a few exceptions, the exact scale of which has yet to be determined,<sup>2</sup> workers' surveys differed significantly from the few 'disaggregative' surveys that were being produced during the same period. In Great Britain, debates on the political management of poverty, which intensified following years of famine and a rise in wheat prices caused by a poor harvest in 1794, led to social surveys being conducted (Poynter, 1969, p. 45). One of the pioneers of this type of survey was the insurer and statistician Frederic Morton Eden. Published in 1797, his work *The State of the Poor* included data on the 'labouring classes.' However, these surveys differed greatly from those produced by the weavers in the cotton towns, as they were intended to 'investigate the

State of the labouring poor, and Poor laws,' that is, to understand the causes of poverty and improve its regulation (Eden, 1797, pp. vi, xviii). In France, the surveys carried out were the work of social reformers, and often arose from research questions posed by learned societies, particularly the Académie des sciences morales et politiques, also addressed 'only' the issues of poverty, and sometimes crime (Leclerc, 1979, pp. 23–24; Procacci, 1993, p. 205). Poverty was mainly approached from a public health perspective, and the remedies proposed were primarily concerned with improving the individual behavior of those referred to as poor (Porter, 2003, p. 29; Procacci, 1993, p. 206).

Surveys by workers, on the other hand, focused on wages, or the lack of them due to unemployment or part-time work. They studied themselves not as poor people, but as workers who had become poor for reasons beyond their control. Their aim was to show that their problems were linked with the inadequacy of their wages, and that the most appropriate solution to this was to protect wages through legislative interventions in industrial relations. Anticipating the debates that would come to the fore in France in 1848 (Procacci, 1993, pp. 16–17), they linked their impoverished condition to wages that were too low, consumer goods that were too expensive and recurrent economic crises. Their knowledge was used to demonstrate the causes of their suffering and, by spreading it through their newspapers, they undoubtedly helped to shape the labor question, making poverty an economic issue rather than a moral one.

### Knowledge versus hegemonic discourse

Despite being a tool frequently used by certain trades and by *L'artisan*, the first Parisian workers' newspaper, the production and circulation of quantitative surveys on living and working conditions was not a central part of the editorial project of *La ruche populaire* or of *L'atelier*. In its launch prospectus, *La ruche populaire* explained that the idea for the paper came to 'a few men of the people, workers,' because of 'the strange way in which newspapers of all shades claim to defend the interests of the people.' Their aim was 'to undertake this task themselves,' to give a voice to 'laborers' and to correct their image in the eyes of the public (No title, 1839, p. 2, my translation). Probably due to the influence of the socialist Henri de Saint-Simon, who in his later writings stressed the need to base society on common moral principles (Musso, 1999, pp. 79–97), their aim was to highlight first and foremost the moral qualities of workers. In *L'atelier*, the link between the editorial project and the surveys later published is easier to detect even if it was not expressed as an objective of the publication. The article introducing the newspaper to its readership announced that its founders had decided to 'take the side of publicity'; that is, their aim was to 'reveal' to all French people the facts about the workers, or as they put it, they wanted to 'enlighten public opinion about [the working classes]' ('Introduction,' 1840, p. 1, my translation). According to them, making their situation visible was necessary to provide support to the political project of the 'reorganization of work.' To do this, they intended to 'show all the miseries that torment the majority of the people, all the evils that debilitate their bodies and kill their souls' ('Introduction,' 1840, p. 1, my translation). The contrast with the workers' newspaper *L'artisan*, published between October and December 1830, is striking. Its editorial committee had as its central project the publication of a survey in order 'to expose the situation of the various trades' (No title, 1830, [n. p.]). The difference can perhaps be explained by the fact that the early 1840s were largely taken up with debates on the organization of work (Gribaudo, 2014, p. 337). As the project was initially primarily political, collecting statistics was perhaps not seen as a necessity or even as a priority.

The diffusion of knowledge about the living and working conditions of the working classes was therefore not part of the basic editorial projects of *La ruche populaire* and *L'atelier*; rather, the idea arose from external events that led to an awareness of the need for objective information. François Jarrige and Thomas Le Roux suggest that the surveys produced within the workers' movements after the 1830s were a response to those that were being produced by social observers (Jarrige & Le Roux, 2019, p. 43). A detailed analysis of the surveys contained in the two newspapers shows that the

dynamics and motives for knowledge production were somewhat more complex. The first survey from this period was published in *La ruche populaire* and not, as is sometimes claimed (Jarrige & Le Roux, 2019, p. 48; Rigaudias-Weiss, 1936, p. 159), in *L'atelier*. Conducted by a mechanical fitter ('monteur mécanicien') who signed his name simply as Schacherer the elder ('Schacherer aîné'), it was intended to answer a question that was included in a circular sent on 27 August 1840 by the Minister of the Interior Charles de Rémusat to the prefects directing them to investigate charitable institutions: 'What is, on average, the sum of money that is strictly necessary for the common life of workers?' (Rémusat, 1840, pp. 21–22). Another survey published in *La ruche populaire* was initiated in response to a call by the novelist Eugène Sue. Asked by one of the editorial board for his opinion on the line the newspaper should take, Sue advised them to 'prove with figures the inadequacy of wages (caused by the disorganization of labor), by comparing the rate of this wage with the sum demanded by the worker's most vital needs' ('Lettre de M. Eugène Sue,' 1844, p. 14, my translation). In response to Sue's advice, a mechanic ('ouvrier mécanicien') known as Janoma produced a three-part survey, published in 1844, entitled 'Une industrie Parisienne,' combining statistics with a literary depiction of social misery (Janoma, 1844a, pp. 72–76; Janoma, 1844b, pp. 135–140; Janoma, 1844c, pp. 231–236). Finally, *La ruche populaire* launched a section entitled 'Mystères des ateliers' ('Mysteries of the workshop') designed to bringing together surveys about the working classes. The reference to Sue's *Mystères de Paris* (*Mysteries of Paris*) is obvious. However, the presentation of the project did not mention any external influence in the creation of this column, which was intended to 'continue the exhibition of hidden miseries, an exhibition they have set themselves the task of producing' (Le comité, 1844, p. 339). The aim of these surveys was both to make the misery of workers visible and to understand its causes in order to find ways to remedy it.

The surveys in *L'atelier*, on the other hand, were clearly meant to refute the ruling classes' discourse about workers and the facts they used to support their claims. The call for surveys published by its editorial board was a reaction to comments made by Charles Dupin, a French mathematician, politician, engineer, and economist. Dupin frequently wrote pamphlets giving paternalistic advice to workers, especially during periods of social unrest, encouraging them to exercise restraint (Jarrige, 2009, p. 228). In 1840, following the strikes in Paris that year, he published his *Conseils adressés aux ouvriers parisiens* (*Advice for Parisian workers*). In this pamphlet he tried to separate 'good' workers from 'seditious' ones by showing the former that their situation was not as bleak as they had been led to believe by the latter. To do this, he proposed to guide them 'with the help of reason and truth' by giving a 'picture of their real prosperity, which has never been so great, and which would suddenly fall if public order were no longer its safeguard' (Dupin, 1840, p. iii, my translation). Dupin backed up his argument with various indicators, such as the money accumulated by the Parisian working classes in recent years at the Caisse d'Épargne (i.e. the saving bank), the growth of the Parisian population and of the city's factories, or the drop in the price of bread (Dupin, 1840, pp. iii–iv, 4–5). After these few facts, which according to him showed a state of widespread prosperity, Dupin devoted his text to preaching to the workers, either by arguing that their demand to reduce the working day from fourteen to twelve hours was unrealistic, or by telling them that their demands risked ruining their 'motherland' (Dupin, 1840, p. 13).

In an article addressed directly to Dupin, the editors of *L'atelier* refuted his depiction of the period as one of growing economic prosperity. Their reply shows not only a mastery of the economic and social knowledge in circulation at the time – not surprising for typographers – but also an ability to use facts and statistics effectively in an argument. For example, they retorted to Dupin that the numerous bankruptcies recorded by the Commercial Court contradicted his claim that industry was 'thriving.' To his argument that the reduction of the working day from fourteen hours to twelve would jeopardize the French economy, they indirectly replied that 'constantly increasing work while reducing wages or even keeping them the same would kill the body and the intelligence of the workers.' In this way, they shifted the discussion from the risks to the country's prosperity to the state of their own bodies, skillfully reframing the debate. To prove this point, they advised him among other

things to look at ‘recruitment statistics,’ which would ‘teach him how many years it takes to follow such a system to kill two or three generations of workers.’ The ‘statistical trend’ (Ycart, 2016, my translation) in French public debate since the 1830s is thus fully reflected in the typographers’ response to Dupin. Moreover, the typographers were aware that it was not necessary to mention the statistics themselves for quantification to fulfil its objectifying function. One of the reasons for this is undoubtedly that the poor health of a segment of society, as evidenced by the recruitment statistics, was then publicly discussed. For example, in an article for *Le journal des débats* published two weeks earlier, the French politician Maurice Chevalier exclaimed: ‘How ugly and degraded the human race is, as it is shown naked to the recruitment boards in our factory towns!’ (Chevalier, 1840, [n. p.]).<sup>3</sup>

Typographers concluded their response to Dupin, asserting:

It is impossible for us to refute in a single article all the false allegations you have just heaped upon us: the only response we wish to make from now on is to open a survey in our journal; our figures will certainly be worth your reasoning. (‘Très sincères remerciemens à M le Baron Ch Dupin, économiste, membre de l’Institut, de la Chambre des Pairs, etc, sur ses Conseils adressés aux ouvriers parisiens,’ 1840, p. 13, my translation)

As this quote shows, objectivization processes were conceived of as a means of countering the rhetoric of Dupin and others like him. This example supports Theodore M. Porter’s analysis that ‘the drive to supplant personal judgment by quantitative rules reflects weakness and vulnerability’ (1995, p. xi). Although the authors of the surveys received and published by *L’atelier* did not address Dupin directly, they likewise sought to correct through their statistics the opinions about workers among the ruling classes. As mentioned in the introduction, the survey carried out by the cabinetmakers was intended to prove to the bourgeoisie, simply and without ‘eloquence,’ their poor living conditions by means of ‘a small table of the wages of cabinet-makers’ (‘Situation présente des ouvriers ébénistes,’ 1840, p. 29, my translation); similarly, a survey of painters was justified by the need to ‘destroy the prejudices that prevail against them’ (‘Enquête. Situation des ouvriers peintres,’ 1843, p. 41). Thus, the workers’ conception of their ‘militant knowledge’ illustrates their belief in the capacity of statistics to counter hegemonic discourse and to ‘make injustice visible’ (Desrosières, 2014, pp. 71–72, my translation).

The origins of the workers’ surveys of the 1840s were diverse, but they had a shared ambition: to expose ‘the particular vices of each branch of industry’ (‘Enquête sur la misère des ouvriers, et sur les moyens d’y remédier,’ 1840, p. 14, my translation), to ‘unveil an industry’ (Janoma, 1844a, p. 75), and to enable ‘the exhibition of hidden miseries’ (Le comité, 1844, p. 339). They served to make the realities of workers visible, illustrating the role of ‘statactivism,’ or ‘militant knowledge,’ in the formulation or expression of social issues. This workers’ knowledge did not initially come from a desire to respond to dominant knowledge, but from the decision of one of them to respond to the state’s request for information from its civil servants with his own knowledge. The counter-inquiry was only one of the triggers for the desire to produce and disseminate knowledge. The independent origins of workers’ surveys is not surprising, given that, as we saw in the first part of this article, these workers were not simply imitating bourgeois practices in their knowledge production, but were (consciously or not) continuing a practice that had been present in different areas and trades since the end of the eighteenth century. However, while the surveys published in workers’ newspapers in the 1840s belong to a workers’ tradition, they were produced in a very different context. They were conducted very openly in a ‘dynamic interaction’ (Karila-Cohen, 2010, p. 26), with the state, economists, and social observers, which, as we shall see, led to interesting changes in their practices.

## The workers’ standpoint

In the surveys published by *La ruche populaire* and *L’atelier*, the terms used by workers to describe their approach to social observation and the way in which they put it into practice vary greatly from

one author to another. The word ‘statistics’ was used on three occasions with a clear numerical connotation (Schacherer, 1840, p. 2; Schacherer, 1841, p. 70; ‘Enquête. Imprimerie, ou typographie, et fonderie en caractères,’ 1841, p. 1), though this was far from the norm in the first half of the nineteenth century (Herrnstadt & Renard, 2020, p. 32). Given the context, it seems to refer to the idea of a series of numbers inserted into a network of arguments and information of various kinds. ‘Figures’ (*chiffres*) was sometimes employed to refer to numbers alone (see, for instance ‘Enquête sur la misère des ouvriers, et sur les moyens d’y remédier,’ 1840, p. 14; ‘Enquête. Imprimerie, ou typographie, et fonderie en caractères,’ 1841, p. 70). The whole process, from the action of collecting qualitative or quantitative information to its outcome, was referred to by the editorial board of *L’atelier* and by the workers who took part in it as a ‘survey’ (*enquête*). The terms ‘state’ (*état*), as in ‘the state of the working class,’ and ‘table’ (*tableau*), which was used, for instance, by silk weavers in Lyon to refer to a set of figures inserted into a text (Piguet, 2024, pp. 40, 63, 78), had almost disappeared, and had clearly been replaced by the term ‘survey’ (*enquête*).

Some of the surveys carried out by different trades or surveyors and published in *La ruche populaire* and *L’atelier* were similar in terms of method and object of study to those of the period from 1770 to 1830. Schacherer, for example, though he claimed to be responding to Minister Rémusat’s question about the minimum wage needed by workers for basic living expenses (posed with the goal of improving public charity), was in fact investigating the question of labor. His survey ended not with proposals for improving the organization of bread distribution to the poor, but with a call for workers to form associations, in order, among other reasons, ‘to finally get [their] share of well-being’ (Schacherer, 1841, p. 10). In the first part of his survey, Schacherer drew up a workers’ budget based on the salary of a hypothetical ‘average’ worker earning a good wage.<sup>4</sup> He then calculated the annual income of his family group, in which the adult woman was in a low-paying job, and listed their expenses. As he explained, he collected the data on expenses from ‘sixty people, taken from three different backgrounds: manufacturers, middle-class people, and workers’ (Schacherer, 1840, p. 5). After outlining the estimated expenses of workers, he criticized at length those entrepreneurs who were trying to lower wages at a time when household incomes were already so low that workers could not even cover their needs. This way of establishing generalized social knowledge based on a typical worker was very similar to that used by silk weavers in Lyon and cotton handloom weavers in and around Manchester between the 1770s and the 1830s. As was already the case among the silk weavers of Lyon, the list of expenses necessary for life was not a list only of vital goods, but also of comforts. It included spending on clothes (e.g. a man’s frockcoat) and on culture (‘books, shows, society, or refreshment room’) (Schacherer, 1840, p. 5). In this respect, the knowledge that was created broke from pauperology, and was underpinned by a political programme: that what constituted an adequate income was more than just the bare or vital minimum.

The surveys produced by and published in *L’atelier* in response to a call from the editorial team also bore a resemblance to what the workers’ newspaper *L’artisan* had planned and partially carried out in 1830, both in terms of method and object. The latter had launched an appeal to all the trades to prevent the newspaper from being merely the organ of their trade (printer-typographers); instead, they wanted to gather information on ‘the entire class of artisans’ (No title, 1830, [n. p.], my translation). Similarly, *L’atelier* organised a general survey with the aim of ensuring that the situation of the working classes was represented in its entirety and that no one was left out (‘Enquête sur la misère des ouvriers, et sur les moyens d’y remédier,’ 1840, p. 14). Unlike *L’artisan*, however, *L’atelier* began the collection of information by preparing a questionnaire. Workers in each trade were asked to ‘send the editorial team information on the following issues’: (i) a comparative table of wages over the previous twenty years, (ii) actual wages by day or task, (iii) risk of unemployment, (iv) the average daily wage per trade, (v) the structure of the trade (in particular, differences in pay linked to hierarchies among workers in the same trade), (vi) working hours, with an emphasis on the prevalence of night work, (vii) health risks (e.g. hygiene), (viii) the presence of women and children in the trade, as well as their wages, (ix) the customs and habits of the particular trade (‘Enquête sur la misère des ouvriers, et sur les

moyens d'y remédier,' 1840, p. 14). The categories of interest to the editors were thus closely linked with the labor question, above all the topic of wages and how they varied over time, but also due to periods of unemployment. As was the case for the statistics produced by the workers' movements between 1770 and 1830, they focused in particular on wages, and thus on the living conditions of workers. However, the question of work was no longer linked solely to wages. As the categories show, the editors of *L'atelier* were also interested in issues related to working conditions (e.g. hygiene and night work). The increase in the number of categories surveyed is most likely explained by the fact that some Parisian workers – especially typographers – were probably aware of the increasingly debated issue of public health (La Berge, 1992). It may also reflect the deterioration in working conditions.

*L'atelier* received five surveys sent in by workers from different trades: cabinetmakers in Paris, printer-typographers in Paris, hatmakers in Paris, silk weavers in Lyon, and painters in Paris. No information was given about the methods used by members of the various trades to collect and compile the data. Readers were simply informed in a footnote that if they had any doubts about the figures, they could contact the worker in charge of the survey through the newspaper ('Enquête. Imprimerie, ou typographie, et fonderie en caractères,' 1841, p. 70). The statistics drawn up for these surveys related first and foremost to wages, either average wages by type of activity within the trade ('Enquête. Imprimerie, ou typographie, et fonderie en caractères,' 1841, p. 70) or workers' budgets in the case of the silk weavers of Lyon ('Enquête. Situation des ouvriers en soie, à Lyon,' 1842, pp. 69–70). The cabinetmakers were the only trade to offer a comparison of wages between the 1830s and 1840s ('Situation présente des ouvriers ébénistes,' 1840, p. 29). The printer-typographers and the hatmakers backed up their description of their trade by counting the number of workers by type of activity and the percentage of unemployed workers ('Enquête. Imprimerie, ou typographie, et fonderie en caractères,' 1841, p. 70; 'Enquête. Situation des ouvriers chapeliers,' 1841, pp. 6–7). Despite the request from *L'atelier*, very little information was given on working conditions, and when provided it was qualitative. For example, painters described the risks associated with the use of white lead in their trade in simple testimony: 'We have witnessed the sufferings of several of our friends, prey to this cruel disease; we have seen them rolling and writhing on the bed of the hospice' ('Enquête. Situation des ouvriers peintres,' 1843, p. 41, my translation).

Other surveys testify to the impact of a context in which workers were no longer the only ones interested in producing knowledge about labor, and social observation practices were growing rapidly in France (Jarrige & Le Roux, 2019, p. 41; Lyon-Caen, 2007, p. 100). In the second part of his study, published six months after the first part discussed above, Schacherer looked at the 'budget of low-paid workers' in France. Unlike the first part, this publication was not based solely on data gathered specifically for it but was enhanced by incorporating existing statistics. Schacherer began his analysis with a well-argued critique of the statistics published by the linguist and philanthropist Joseph-Marie de Gérando in his book *De la bienfaisance publique*. He considered that, in drawing up these workers' budgets and their expenditure, Gérando greatly underestimated the cost of food and childcare (Gérando, 1839, pp. 5–6). After these criticisms, he submitted to his readers 'the details of a household of workers of the lowest paid class' indicating their income and expenses. The list of expenses included 'forced rest on public holidays,' with the following comment: '(which no philanthropist talks about).' With this budget, he showed that the typical workers' household was on the verge of bankruptcy, stressing that he did not 'count either the extraordinary expenses caused by sweet reunions of the members of a family [. . .] nor the lack of work' (Gérando, 1839, pp. 7–10). The survey included a third set of figures presenting 'the state [. . .] of the wages of laborers in the greater part of the globe.' Statistics were given on the expenses of a family in Russia, the wages and expenses of a craftsman in Norway, and the wages of a grape farmer in Portugal and of workers in England, New York, or Haiti. All these data were taken from a survey on poor laws in foreign countries carried out by the British government in 1834 as part of a reform of its own charity system, which Gérando reproduced in his own book (*Report from His Majesty's Commissioners for Inquiring into the Administration and Practical Operation of the Poor Laws*, 1844).

The presence in *La ruche populaire* of international statistics produced by the British state and circulated in France by Gérando illustrates once again the importance of the diffusion of social and economic data from Great Britain (Fauchet, 1995, p. 44). It also shows the ability of workers to use knowledge already in circulation in support of their own arguments. Indeed, statistics produced with a view to reforming the charity system through a better understanding of the phenomenon of poverty became, for Schacherer, a means of convincing the dominant classes of the harshness of workers' conditions. They also enabled him to show his worker readership that the conditions of those he referred to as 'laborers' (*travailleurs*) were shared, and in so doing to participate in the construction of a working class that transcended different trades and different countries. From his statistical observation of a unity of conditions, he concluded that it would be appropriate for workers to 'stop being hostile to one another' and to 'join forces' (Schacherer, 1841, p. 10).

The surveys published by *La ruche populaire* at the instigation of Eugène Sue show a different approach to exposition of the conditions of the working class. The first survey, produced by Janoma, focused on Parisian industry. To describe the situation of women in those industries, he listed the average wages per trade, with estimates of the amount earned per day and expenses. He also detailed the budget of a young unmarried woman worker to illustrate the general inadequacy of wages. This survey differed from those produced within the worker's movement up to that period in several ways. Although he was a worker, Janoma looked at his object of study with the eyes of an outside observer. The reason for this is undoubtedly that his survey focused on women's work. A separate investigation into women's work was also a novelty of the period (also found in *L'atelier* ['Enquête. De la condition des femmes,' 1842, p. 31]). In all the surveys conducted between 1770s and 1830s that I have found, women were always considered simply as part of an economic unit centered on the male breadwinner. By contrast, not only did Janoma look at his object of study from outside, he also spoke of it with compassionate language using sentences such as: 'Not to mention the factories, which decimate [their] mothers and sisters and weaken [their] daughters by excessive work, locked up as they are in unhealthy workshops' (Janoma, 1844a, p. 72, my translation). Unsurprisingly, this compassion was expressed with 'sexist rhetoric' (Haftner, 2007, p.53): 'Oh, how awful to think for such a frail and delicate creature as a woman!' (Janoma, 1844c, p. 236, my translation). Finally, he used novelistic techniques, probably a sign of the influence on his work of social novels, in particular those of Eugène Sue (on the influence of literature on social observation, see Lyon-Caen, 2007). For example, when he detailed the expenses of a young single worker, he punctuated the data with sentences by his fictitious worker with the aim of emphasizing her exemplary and thrifty behaviour: 'For her week she will need 6 pounds of bis-white bread, 84 cent. "I'll eat soup as often as I can," she says, "it keeps me going and costs less"' (Janoma, 1844a, p. 74).

'Les mystères des ateliers,' also the product of the work of various trades, took a wide variety of forms. This collective survey alone shows the ability of members of the workers' movements to use different writing styles (literary or close to everyday speech) to convey their qualitative and quantitative observations of their living and working conditions. The contributions were generally signed with a surname or initials, accompanied by the surveyor's trade, usually the same as the one being described. Some of the vignettes were quotations, and sometimes the origin of the text was mentioned; others were sent to the editor in the form of a letter. They presented a trade in the form of a representative type (e.g. 'the mattress carder,' 'the painter,' 'the shoemaker,' etc.) or by generalization ('shoemakers,' 'laundry workers'). The contributions could take the form of moving testimony or give a more distant account. For example, a bronze fitter mixed his first-person account with statistics on wages. He began his letter by announcing that '[i]t is with sorrow that [he] present to [them] the misfortune of such a beautiful state.' He went on to explain that he has been ill for a long time, and then noted that when he returned to work 'you could [...] earn 3 to 4 francs a day' (Marchand, 1845, pp. 41–42, my translation). Two lead workers described their living and working conditions by mixing statistics with more qualitative information and by moving rapidly from detached to situated observation:

Men with no resources and no work [...] are forced to go to Clichy-la-Garenne to work on white lead [...]; and sometimes these unfortunate people, after a fortnight, find their limbs shattered, or fall ill with terrible colic. For eleven hours of such work, they earn the sum of 40 sous a day [...]. There are sixty of us at this slaughterhouse. (Degardin, 1844, pp. 373–374, my translation)

As well, a shoemaker provided some comparative data about his trade in dispassionate language: ‘In the past, shoemakers, of whom there were around 40,000 in Paris, earned a fairly good living; a pair of boots cost 8 to 9 francs. Today, varnished boots (the best there is) are paid 6 francs’ (Futelet, 1845, p. 41, my translation).

Though *L’atelier* attempted to standardize data collection by means of questionnaires and predefined categories, the surveys put into circulation by both workers newspapers were thus characterized first and foremost by their great variety. They demonstrated that members of the workers’ movements continued to develop their own methods (e.g. workers’ budgets, collection of data, use of questionnaires) while nonetheless enriching their own findings with external sources. Indeed, members of the workers’ movements very much engaged with the work of social observers, which they circulated, discussed, criticized, and borrowed from. This interactive dimension no doubt explains the transformation of the survey methods and forms employed by workers, showing their ability to borrow statistical or literary forms invented by others and use them for their own ends.

The confrontations with Dupin, Gérando, and other social observers over surveys and statistics on workers’ conditions probably explain one of the most striking changes from the surveys made by workers between the 1770s and the 1830s to those published in *La ruche populaire* and *L’atelier*: the emergence of a discourse on their epistemology and philosophy of sciences. Some of the articles contained reflections on their position as surveyors of their own class, aimed at convincing readers that their data and analyses were more reliable than those of social observers from the ruling classes. Editors and surveyors’ main criticism of the social observers’ surveys was that they based their knowledge on false information. In their opinion, their position as members of the working classes enabled them, in contrast, to gather accurate information. In one of his surveys for *La ruche populaire*, Schacherer was particularly indignant about an enquiry by Gérando, asking:

With all due respect to M. le baron, what are the foods, either meat or vegetables, on which five people will be able to live, spending only ten cent. each per day on good food in the towns and only five cent. in the countryside? [...] M. le baron is really dreaming, and [they] workers would be very happy if he would give [them] the means to live so cheaply. (Schacherer, 1841, pp. 2–3, my translation)

According to the editorial board of *L’atelier*, the surveys to be produced by the workers that they were calling for would not face this kind of problem. They pointed out that they ‘could [...] without making too much of a mistake, believe [themselves] to be in a better position than the economists, if not to judge the facts that concern [them], at least to expose them’ (‘Enquête sur la misère des ouvriers, et sur les moyens d’y remédier,’ 1840, p. 14, my translation). Gathering facts from ‘comrades’ would avoid ‘contradictions, errors, and figures dictated by pointless bad faith.’ Such shortcomings in the knowledge produced by ‘economists’ resulted, in their opinion, from the fact that they gathered their information from ‘masters and heads of workshops.’ By proceeding in this way, the ‘scholars’ then resembled ‘certain inspectors of hospitals and barracks, who, far from dropping in unexpectedly, give a fortnight’s notice, so that everything is clean and tidy for that day only’ (‘Enquête sur la misère des ouvriers, et sur les moyens d’y remédier,’ 1840, p. 14, my translation).

However, the poor quality of the information gathered by the economists was not the only reason why they felt that their own knowledge was more reliable. Some of them also argued that their position as workers made them more effective in understanding and analysing the causes of their situation. After listing the many individuals who had expressed themselves about the working classes despite being ‘completely ignorant on the subject,’ the editorial committee of *L’atelier* declared that ‘the worker alone can explain his position’ (‘Enquête sur la misère des ouvriers, et sur les moyens d’y remédier,’ 1840, p. 14, my translation). When they introduced the new ‘Les mystères des ateliers’ column, the editors of *La ruche populaire* similarly argued that ‘no one else

would know better than workers how to understand and explain the suffering of [their] brothers and sisters, because [they] live like them' (Le comité, 1844, p. 339). Being a worker and experiencing this condition was clearly seen as giving them an epistemic advantage in the creation of knowledge. They did not base the objectivity of the knowledge produced on the distance between the observer and the observed, or on the observer belonging to the 'superior' classes, as was then the case in the emerging social sciences (Leclerc, 1979, pp. 50–51, 97). They maintained instead that the lack of understanding of the situation of the working classes on the part of social observers like Dupin was explained by their remoteness from the object under study. Rather, it was the fusion of observer and observed that was seen as ensuring the accuracy of their data and of the capacity to analyze them correctly.

Thus, while the statistics of the workers' movements contributed to the emergence of this new form of the 'empirical study of society' (as discussed by Innes, 2009) thanks to their production of knowledge on the labor question, they also proposed and defended an innovative method of social observation. In so doing, they contributed to the theorizing of another social science methodology, that of epistemic privilege, or standpoint theory, the origination of which has usually been credited to Karl Marx in his *Economic and Philosophic Manuscripts of 1844* (Harding, 1993, pp. 53–54; Hartssock, 1983). What the workers' surveys in *L'atelier* show is that although Marx 'inaugurated a whole tradition [...] from Georg Lukács to the feminist epistemologies of the standpoint' (Monferrand, 2024, p. 61, my translation), in the sense that these theorists claimed him as their inspiration, the theory itself had been formulated at least three years earlier, within the dominated classes themselves. As we have seen, in common with all standpoint theories, workers asserted that they have 'an epistemic advantage regarding politically contested topics related to their subordination, relative to the perspectives of the groups that dominate them' (Anderson, 2020). In this way, workers believed that they had better knowledge of their own misfortune and a better understanding of its causes than any outside observer could. The efforts of some of them to carry out and publish investigations and the calls for enquiries issued by the workers' newspapers are further proof that, as Hartssock points out in her description of the nature of the 'standpoint,' they felt that their 'vision [...] [had to] be struggled for and represent[ed] an achievement' (Hartssock, 1983, p. 285).

## Conclusion

The quantitative surveys published by *La ruche populaire* and *L'atelier* between 1840 and 1848 provide a valuable case study of 'formalised' (Daunton, 2005, p. 9) workers' knowledge in the nineteenth century. These newspapers, as both avenues for disseminating existing knowledge produced by workers and spaces encouraging the production of statistics within the labor movements, allow for a highly detailed analysis of this knowledge. Their very existence, as well as their longevity, offers a rare opportunity to observe how this knowledge was produced, how it was used, and how it evolved in 'dynamic interaction' (Karila-Cohen, 2010, p. 26) with the discourse and the knowledge of the dominant classes. The study of this 'militant knowledge' (Lamy, 2018, p. 2) also allows us to broaden our understanding of the history of knowledge. It supplements the narrative of the emergence of empirical sociology with the knowledge produced by actors who did not belong to a scientific elite and whose work did not circulate in the usual forums for the dissemination of knowledge. As we have seen, some Parisian workers were very familiar with survey methods (e.g. questionnaires and workers' budgets), statistical methods (e.g. average wages, standard of living), and broader questions of representativeness, typicality, and bias. To appreciate the implications of this for the history of knowledge, we need to remember that these methods were still at an early stage of development and systematization among the few social observers who were conducting social surveys in France at the time. These surveys also give us insight into the workers' own view of their situation, in particular in their focus on the economy – in other words, on the labor question – in relation to that of the dominant classes as reflected in the surveys that the workers criticized.

Moreover, examining such ‘militant knowledge,’ or ‘statactivism’ (Bruno et al., 2014, p. 8), makes it possible to question the centrality of public statistics in the traditional narrative. This workers’ knowledge was produced in order to counter the dominant discourse, to make visible the deterioration of the situation of workers, and even to prove to the workers themselves that, regardless of their differences, they all shared the same conditions and should therefore unite to transform them; it is thus a profound challenge to the traditional narrative of statistics as the instrument of state power only (Labbé, 2019, p. 362). Finally, the surveys published in the 1840s bear witness to the existence of an epistemology that is specifically a *workers’* epistemology: a standpoint epistemology quite distinct from that of the developing social sciences, in which a distance between observer and observed was seen as ensuring veracity and objectivity. The discussion of method, hitherto absent from surveys produced by workers, was most likely triggered by the need for workers to position themselves against the views of social observers and the arguments of the dominant classes, and to legitimize the knowledge they produced. More generally, it is likely that the production of ‘militant knowledge,’ or ‘statactivism,’ is often implicitly underpinned by an epistemology of the situated standpoint. In the case of the surveys conducted by *La ruche populaire* and *L’atelier*, such an epistemology was made explicit in the context of interaction with other knowledge producers and the need on the part of workers to convince the public of the superiority of their own surveys over those of the social observers and economists of the ruling classes.

## Notes

1. For my research I did not consider non-aggregated data, such as testimonials in the form of ‘My salary is x.’ The use of data aggregation is a sign both that quantification has taken place, and that the data was intended to be representative.
2. My research to date has revealed three exceptions. In Great Britain, an investigation by the priest David Davies, published in 1795, examined the wages of agricultural workers. In 1776, an unfortunately anonymous investigator carried out a survey of silk workers in Lyon, and concluded that one response to the deterioration in their situation would be to increase piece rates. Finally, in 1830, the polymath Armand Duchatellier carried out a long-term salary survey to prove the degradation of the condition of workers. See Davies (1795); Godart (1976, 405); Duchatellier (1830).
3. Maurice Chevalier himself drew this information about the poor health of soldiers in certain regions of France from: Villermé (1840, p. 245). On the history of knowledge about military health in France, see Rasmussen (2016).
4. As Schacherer puts it: ‘I take as a basis a married worker with two children, as being a happy medium between those who have five and six, and those who are single’.

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