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## **‘Supply Chain Capitalism’, Parcel Delivery Workers and the Degradation of Work: Exploring Job Quality for Remote Delivery Workers**

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Chapter in Isidorsson T and Kubisa J (eds) (2018 forthcoming) *Job Quality in an Era of Flexibility: Experiences of Job Quality in a European Context*. Routledge

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### Abstract

The focus of this chapter is to explore the dynamics and impact of supply chain capitalism upon the job quality and work quality (Munoz de Bustillo, 2009) of parcel delivery workers in the UK. Munoz de Bustillo’s focus is upon work quality and *employment quality*, however the chapter extends our understanding of the dynamics of job quality by focusing not only on directly employed workers, but also on dependent self-employed workers and the apparent extraction of parcel delivery workers from an employment relationship. The data presented in the chapter exposes the fiction of ‘self-employment’ in parcel delivery, promoting further consideration of contractual arrangements as a measure of job quality. It necessarily invokes the UK’s institutional support for dependent self-employment. The chapter consciously locates the job and work quality of parcel delivery workers as an outcome of not only contestation within the workplace but also of the dynamics of wider supply chain and sector pressures.

### Introduction

The focus of this chapter is to explore the dynamics and impact of supply chain capitalism upon the job quality and work quality (Munoz de Bustillo, 2009) of parcel delivery workers in the UK. While Munoz de Bustillo’s focus is upon work quality and *employment quality*, the chapter, focusses not just on directly employed workers, but also on dependent self-employment and the apparent extraction of parcel delivery workers from an employment relationship – we thus formally refer to ‘job’ rather than ‘employment quality’. However, the data presented in the chapter exposes the fiction of ‘self-employment’ in parcel delivery, promoting further consideration of contractual arrangements as a measure of job quality. It necessarily invokes the UK’s institutional support for dependent self-employment, although this has been the subject of legal contestation over worker rights (Behring and Harvey, 2015).

The purpose of the chapter is not to provide an extensive discussion of the debates on job quality. These debates have been rehearsed elsewhere and subject to concentrated academic debate over recent times (see chapter 1, Findlay et al., 2013; Kalleberg, 2011; Ostermann, 2013) Now seemingly

widely accepted, job quality is regarded as a multi-dimensional phenomenon influenced by a variety of factors and contexts. Subject to interrogation by multiple social science disciplines, attempts to ‘measure’ job quality is understandably regarded as problematic. For economists, debates on job quality seem to be grounded upon pay as a proxy for good quality jobs. Psychologists appear to be preoccupied with individual notions of job satisfaction and well-being as a measure for job quality. Writers from a sociological tradition understand job quality as predicated upon the dynamics of the employment relationship. For writers in this tradition the dimensions of job quality can best be understood as an outcome of the employment relationship influenced by a variety of contextual factors, institutional and regulatory regimes (Gallie, 2007). Indeed, more recent debates have come to recognize the importance of agency (individual and/or collective) in shaping the dynamics of job quality (Hoque et al., 2017, Simms, 2015). Moreover, these interventions have highlighted the fluid nature of job quality, reflecting an outcome of the power dynamics of interests within the workplace. Notwithstanding the machinations of the debates on job quality regarding appropriate territories and level of analysis, there does appear to be some level of agreement as to what can be considered the ‘dimensions of job quality’. Broadly speaking these dimensions of job quality appear to coalesce around key themes notably: job security; autonomy and discretion; skill and skill formation systems; and work pressures (Gallie 2007, Munoz de Bustillo 2009, 2011; Holman, 2013). Yet, while these dimensions of job quality might include contractual status as an indicator of security, there has been little focus upon so-called ‘self-employment’. It is not mentioned in Munoz de Bustillo et al. (2011), although their previous report for the EU (2009), written prior to the substantial rise in self-employment in the UK, excludes this group of workers whilst acknowledging the existence of false self-employment and concluding that *quality of work* indicators are directly applicable to them. We posit dependent self-employment as a contractual mechanism through which employers transfer the risk of the social costs of employment onto the individual worker, crucially removing access to employment rights. This has resulted in a number of legal cases contesting the status of dependent self-employed workers. In the case of parcel delivery ‘self-employment’ reconfigures both job and work quality; while collective regulation has protected the job quality of the directly employed workers (arguably at the expense of those they work alongside), there is evidence of that both groups of workers experience compromised work quality, particularly in terms of their autonomy.

The degradation of parcel delivery work has attracted growing media and public policy interest in the UK. Field and Forsey’s report (2016) describes the typical experience of self-employed home couriers who deliver from home in their own cars and are sometimes referred to as ‘life-style’ couriers as work is promoted as having the capacity to be organized around their other

commitments. One such respondent exposed the myth that as ‘self-employed’ workers they have control over their work:

“As ‘lifestyle’ couriers we are supposed to be able to work around our home commitments. In the past, yes. But not now, although the company still perpetuates this myth. We now have to give a delivery ETA at the beginning of the day. Failure to meet these times incurs the wrath of a compliance manager, the loss of your bonus and even your job. It is impossible to plan anything as you do not know how many parcels you will receive each day. You are expected to attempt to deliver every parcel given to you on the day of receipt, regardless of how many there are.’ (Field and Forsey, 2016).

The extract graphically reveals the contradiction between the status of ‘self-employment’ and the high level of dependency and surveillance that increasingly dominates the experience of parcel delivery work where service provision in an increasingly competitive market is time critical.

The chapter consciously locates the job and work quality of parcel delivery workers as an outcome of not only contestation within the workplace but also of the dynamics of wider supply chain and sector pressures. In the wider literature, the escalation of consumption through e-retailing has increased the demand for home delivery services. The capacity to satisfy growing consumer demands is built upon the transformation of the once relatively hidden domain of logistics, distribution and parcel delivery. The necessary ‘revolution’ of the logistics function, predicated upon pressures from retailers, is dedicated to securing more exacting, demanding and time critical levels of service delivery and provision. The resulting movement of commodities through inter-linked and integrated supply chains and logistics networks is increasingly regarded as the key arena for securing competitive advantage in contemporary capitalism, a process referred to as ‘supply chain capitalism’ (Tsing, 2009). Whilst there are signs of a growing interest in logistics workers within global value chains per se, to date little qualitative research attention has focused on the experience of parcel delivery workers, operating in the ‘last mile of delivery’ at the end of the supply chain. In response this chapter firstly looks at the increase in dependent self-employment and the legal cases that challenge self-employed status and expose the institutional context. It then explores the political economy of the parcel delivery sector before moving on to outline research methods. The chapter then considers the job quality of parcel delivery workers and particularly the fiction of self-employment. Finally it explores the quality of work in the context of supply chain pressures, in particular incursions on autonomy, before drawing some tentative conclusions for measures of job quality.

## **The rise of dependent self-employment**

Dependent self-employment in parcel delivery is part of a wider expansion in self-employment in the UK where in most years from the early 2000s, the numbers of self-employed grew more rapidly than the numbers of employees and, following the 2008-9 recession, self-employment was a main source of employment growth. Tomlinson and Corlett (2017) estimate from the UK Labour Force Survey data that it accounted for 45 per cent of the growth in total employment from March-May 2008 to the end of 2016 when it totalled 4.6 million (5 million including those self-employed in a second job) or one in seven of the workforce (15%). The ILO (2015:2) has described dependent self-employment as a situation in which *'workers perform services for a business under a civil or commercial contract but depend on one or a small number of clients for their income and receive direct instructions regarding how the work is to be done'*. Here the 'independent contractor' would seem to be in the equivalent position of an employee in terms of economic dependence on a main employer and subordination to the management's authority. However, contractual status means that the dependent self-employed do not have the employment protection rights of an employee. Eurofound (2013) conceived of bogus (sham or false) self-employment as 'subordinate employment relations which are disguised as autonomous work, usually for fiscal reasons, or in order to avoid the payment of social security contributions and thereby reduce labour costs, or to circumvent labour legislation, such as provisions on dismissals' (Eurofound 2002: 2). Employers may insert 'substitution clauses' into workers' contracts to imply self-employment. Bogus self-employment is sometimes discussed as presenting issues distinct from those relating to dependent self-employment: it is a relatively straightforward matter of misclassification whereas the concept of dependent self-employment combines two issues that may each need to be addressed to establish the employment relationship (subordination in addition to economic dependence). However, analyses that present the distinction also emphasise how the 'two aspects are strongly intertwined, not least because the emergence of the latter 'ambiguous' forms of employment' (i.e. dependent self-employment) 'makes the disguise of 'bogus self-employment' easier' (Eurofound, 2013). Eurofound's analysis of the European Working Conditions survey data found that economically dependent workers are financially in a less favourable position in comparison with the self-employed on the one hand and employees on the other. The incomes of the economically dependent worker group *'lie in the lowest tertile of their country disproportionately often'* and their households *'have a correspondingly high level of difficulty making ends meet'*. Similarly in the UK Citizen's Advice (2015) estimated that the median weekly income for the self-employed in 2013/14 was £209, or just 54 per cent of that for employees. Around half (49%) of the self-employed are low paid (below two thirds of median earnings)

compared to 22 per cent of employees, according to Broughton and Richards (2016). They see the UK labour market as now highly bifurcated as a consequence of discriminatory employment law and tax and national insurance regimes for the self-employed and employees. The regulatory framework 'is making it artificially cheaper for firms to move to a model of firm-contractor, and away from the employer-employee model of working' (2016: 6-7).

A series of legal cases have challenged self-employed workers' status. In October 2016 an Employment Tribunal ruled that a group of Uber drivers were not self-employed, but workers and entitled to receive the National Minimum Wage and holiday pay (Employment Tribunal 2016a). The decision of the Tribunal was based upon Uber's exertion of significant control over and direction of its drivers (Uber subsequently lost an appeal against the decision). This control included recruitment and also the setting of prices, instructing them in their work and controlling their duties and performance as well as their terms and the absence of any contract with the customer. Uber drivers were in a dependent work relationship and an unequal bargaining position. A further ET ruling in November 2016 also ruled that a CitySprint bicycle courier should be classed as a worker and entitled to holiday pay, with CitySprint's assertion of couriers as self-employed described as 'window dressing' (Employment Tribunal 2016b) Here the control exercised by the company, the fact the claimant was tracked by GPS technology and wore a company uniform, along with her lack of control over pay, were considered germane. She was considered to have no real right to appoint a substitute (to take her place when she was not available for work) in practice, with little autonomy over the performance of the services performed. A third judgement in February 2017 against Pimlico Plumbers also ruled that a plumber, apparently self-employed, had worker status because he was subject to a range of controls through the company: he had to wear a uniform, be available for work full-time, and conform to rules and standards (Royal Court of Justice 2017). However, in November 2017 a claim for union recognition with collective bargaining rights for Deliveroo riders failed on the basis that they were judged to be 'self-employed' because of their apparent freedom to 'substitute' allowing other riders to take their place on a job (CAC 2017). The General Secretary of the Independent Workers' Union of Great Britain, Dr Jason Moyer-Lee, responded to this defeat by stating that,

'It seems that after a series of defeats, finally a so-called gig economy company has found a way to game the system ... On the basis of a new contract introduced by Deliveroo's army of lawyers just weeks before the tribunal hearing, the Central Arbitration Committee decided that because a rider can have a mate do a delivery for them, Deliveroo's low paid workers are not entitled to basic protections'.

In contrast Dan Warne, Managing Director for Deliveroo in the UK and Ireland commented:

‘This is a victory for all riders who have continuously told us that flexibility is what they value most about working with Deliveroo. As we have consistently argued, our riders value the flexibility that self-employment provides. Riders enjoy being their own boss - having the freedom to choose when and where they work, and riding with other delivery companies at the same time’.

The case exposes the tension over ‘preference’ for self-employment, cast in terms of work autonomy as a trade-off for employment rights and reflected in our case studies of parcel delivery workers, but also the subjective dimensions of job satisfaction and quality (Munoz Bastillo, 2009).

### **Parcel Delivery and Supply Chain Pressures**

The increasing demands of e-retailing and 24/7 consumption within the retail sector have been much documented in recent academic debates. To satisfy these changing patterns of consumption the ‘logistics mix’ of storage, transportation and ultimately delivery has inescapably been reconfigured sending vibrations into the supply chain. Within the mainstream management literature this transformation of relations within the supply chain between retailers, producers and logistics companies is predicated upon two main drivers; cost and service delivery. The movement and delivery of goods/products within retail supply chains is increasingly time critical. The necessity for delivery companies to implement increasingly complex IT systems which track and trace the movement of products often under the electronic gaze of the final customer is paramount. These cost and service-delivery pressures have transformed retailer’s/clients’ strategy regarding ‘goods in motion’.

With the increasing geographical fragmentation of production from consumption, logistics provides the necessary capacity to integrate the movement of goods under the tutelage of dominant retailers/clients (Coe 2014). Cowen (2014) referring to the politics of circulation highlights the capacity for logistics to transform ‘space-time’ and reduce to a minimum the time commodities spend in motion. At a more concrete level, retailers (or clients) thus encourage competition amongst contractors as a mechanism to maximise efficiency and drive down costs. Contracts between retailers and logistics (parcel delivery) providers are contingent on delivering cost savings and securing high levels of service delivery with the power dynamic firmly in favour of the client organisations (Harvey et al., 2002). Coe (2013) highlights the contested territory between logistics firms and their clients, indicating that logistics organisations become contributors

to 'value creation and capture' in their client organisations, as well as being concerned with the protection and mobilisation of their own interests of value capture. Newsome (2015) similarly argues logistics is uniquely positioned as central to the process of realising value generated through the exercise of labour power in production through speed up in circulation. She highlights the critical role of logistics in the 'preservation of value' within the circuit of capital. The concurrent process of 'value capture' within the parcel delivery companies themselves presents the possibility of significant impact on job quality and the degradation of work.

There is growing body of research evidence that explores the impact on both the job and work quality of this 'contested terrain' between retailers and logistics companies embedded within a context of fragmented global production networks and new logistics technologies (Coe, 2014, Haidinger and Flecker, 2015, Haidinger 2012, Newsome 2015, Gregson, 2017). In terms of job quality diverse employment contracts in parcel delivery including, temporary workers, self-employed owner-drives and home-based couriers are increasingly in evidence. The evidence from a recent European study exploring employment change in the sector highlights that growing liberalisation and de-regulation has resulted in far-reaching deterioration in employment conditions. Hermann's 2013 study reveals that increases in atypical employment, growing precarity and increasing numbers of self-employed drivers paid by piece-rate are evident within the sector (Hermann, 2013). This deterioration in work and employment is attributed to the increased levels of out-sourcing and changing supply relations coupled with acute cost pressures, whereby global players contract service providers who in turn hire self-employed drivers. In terms of work quality the study correspondingly highlights increased work intensification, and increased delivery routes culminating in a reduction in autonomy and discretion. The critical literature on new logistics technologies, highlights the capacity of IT systems to offer coherence to fragmented supply chains. These not only track the movement of products in a seamless flow from production to points of passage, gateways and ports finally to distribution and delivery; but also to track the movement of labour. Gregson (2017) referring to the growth in self-employment in lorry drivers (a useful comparator to parcel delivery workers in terms of atomised and isolated work) juxtaposes the once nomadic lorry driver as 'king of the road' with the current tracing of repetitive spatial movements via GPS tracking with the opportunity for real-time surveillance and monitoring. These algorithmic tools and routing software accelerate circulation through the annihilation of space by time, but also offer the possibility of closer and tighter performance management for these atomised workers. The measurement of real-time labour performance creates the capacity for labour optimisation, removing the porosity of the working day and thus reducing costs.



To date there is limited research evidence, which explores the impact of supply chain pressures on the job quality of parcel delivery workers in the UK. The UK provides an insightful regulatory environment to explore job quality for postal delivery workers. The liberalisation of the postal services has involved a change in the regulatory regime and ultimately the privatisation of the state postal provider. Concurrently, the parcels delivery market has expanded in response to the revolution of e-commerce' with the UK operating the third largest e-commerce market in the world in 2015. In, 2015, roughly 80 percent of UK internet users did online shopping, the highest online shopping penetration rate in Europe (<https://www.statista.com/topics/2333/e-commerce-in-the-united-kingdom/>, 2017).

This chapter will consider how these supply chain pressures impact upon job quality in terms of contractual arrangements, collective representation and employment rights; and in terms of work quality, autonomy and discretion and work pressures. It emphasises that it is the absence of autonomy that exposes that parcel delivery workers are de facto workers and not self-employed. Finally, in conceptual terms the paper will seek to contribute to growing debates concerned with supply chain pressures and job quality.

## **Research Methods**

The chapter reports on a qualitative research project exploring the impact of supply chain pressures on the work and employment of parcel delivery workers. Initial interviews were undertaken with key stakeholders within the sector. Following these initial 'scoping' interviews, case studies of three parcel delivery companies were undertaken. Company A, is a national based parcel delivery provider, it is unionised with terms and conditions of employment regulated by collective agreements. Within company A, 12 interviews were undertaken with depot managers, first line managers, supervisors, trade union representatives and directly employed drivers and owner-drivers. The second case-study, Company B, is part of a US multinational. Eight interviews were conducted with full-time union officials as well as directly employed and self-employed workers. This company was also unionised, with terms and conditions of employment regulated by collective agreements. Finally, six interviews were undertaken in Company C, a national organisation which operates with 'home-based couriers'. Interviewees from all case-studies captured changes in the delivery labour process, the nature of work and the contractual status of employees. Owner-drivers and home couriers are necessarily difficult to locate – their working hours and time pressures mean in-depth interviews are problematic. In addition to the case-studies

above five in-depth interviews were conducted with owner-drivers working for a range of national parcel delivery companies with most having worked for at least two.

### **Supply Chain Pressures and Job Quality: Mixed Resourcing, Owner-Drivers and home Couriers**

The research evidence highlights the key role of supply chain pressures in the reconfiguration of the contractual status of workers. As one union officer stated, 'it is the supply chain that dictates from the retail side' another confirmed the pressures placed on parcel delivery contracting arrangements by large retailers:

'Their customers are putting pressure on them to reduce the price ... their customers are exercising pressure – if you've got a contract coming up they will say "you do the job for us at that price, if you don't do it there is enough spare capacity in the market" – these (parcel delivery) companies are effectively price takers rather than price setters – that puts pressures on the companies to reduce their costs and they look at the outsourcing model.'  
(Union Officer)

These pressures are intensified by apparent customer expectations for next and/or the same day delivery with the time when customers can order pushed back further and further to the end of the day.

Our research findings point to the subsequent emergence of a three tier system of employment status driven by this transformation of the logistics supply chain. The first tier covers directly employed workers covered by collective agreements and with a history of collective regulation. Directly employed parcel delivery workers in these companies may have terms and conditions renegotiated in the context of the pressures brought by service level agreements, but they have some guarantee of direct permanent employment supported by collective organization. The second tier involves the introduction of technically 'self-employed' owner drivers generally paid by delivery, but based in depots and working alongside directly employed drivers. A third tier is of home-based couriers, also technically self-employed, using their own vehicles and with limited organizational relationships.

These three typologies were evident across the case study organisations. Company A was characterised by a balance between directly employed and owner-drivers with limited evidence of using home couriers'. The ratio between directly employed and self-employed was negotiated by

the union and was part of the collective agreement. Union officials highlighted that maintaining the ratio had to be 'policed' to ensure depot managers adhered to the agreed targets. In Company B the emphasis was on service delivery as a competitive strategy and as a result this organization did not use home couriers, but was increasingly dependent upon owner drivers incentivised by piece rate with a higher rate per drop. In Company C all drivers are self-employed home couriers. Working from home, workers in this organisation had parcels delivered daily which they sorted and loaded onto their own vehicles prior to delivery. Respondents reported that often the number of parcels to be delivered varied considerably, as a result they often felt anxious that they would not have enough work to secure at least minimum wage rates of hourly pay.

While directly employed drivers had fixed hours and hourly rates, self-employed drivers are paid by delivery or drops. The key advantage of owner-drivers for the companies is the removal of the costs of non-delivery. In Company A directly employed drivers had a target of 70-80 drops per day by contrast owner-drivers were expected to achieve in the region of 120-130 drops per day. Owner-drivers in Company A were reported to receive £1.65 per parcel delivery stop and £2 for collections or pick-ups. By contrast rates per drop for home couriers in Company C varied from 85p to £1. Couriers highlighted that they were meant to be paid more if parcels were heavier than a standard package, but that often the extra payment did not occur.

As dependent self-employed workers were only paid for deliveries, yet their working day included failed deliveries, with no extra payment for reattempts to deliver or timed deliveries or the sorting and loading of vans ready for delivery. In addition, self-employed respondents highlighted that if they were sick, wanted to take a holiday or were faced with any family emergency they would be required to provide substitute cover for their route or they would be charged the costs to the company of an agency worker and may also be fined. Respondents in Company C highlighted that failure to deliver the required parcels (often within specified delivery slots) could result in the immediate removal of work. One respondent highlighted her insecurity;

“You live in threat of them saying, no parcels, that’s it. It’s awful to think, that after doing ten years for them, doing all the hard work, building a round up for them they go ‘see you later’. You’ve got nothing, and that’s what they threaten you with. All the time, ‘we’ll just take your parcels’. Everything you do wrong now, they say, ‘oh well you know we can suspend your parcels’” (Company C, Home Courier).

Reconfigured contractual status in parcel delivery is integral to cost cutting, the speed-up of delivery and, crucially, the removal of non-delivery costs. Dependent self-employment facilitates

the excision of these costs, while the social costs of labour – holiday and sick pay and pensions are transferred to the worker. For owner-drivers while the demand for delivery work might mean that work is not necessarily insecure and the capacity to earn could be relatively attractive, it depends upon long and intensive hours and once the cost of vans, insurance, petrol and maintenance were excluded hourly rates could be near to the National Living Wage (NLW). Yet as self-employed workers delivery workers are not entitled to the NLW or other employment rights even though the quality of their work strongly questions their contractual status.

### **Work Quality - Autonomy and Discretion: ‘The Industrial Engineer in the Cab’**

For both directly and self-employed delivery workers logistics technology not only provides the capacity to electronically track and trace the movement of goods, but also the movement of labour. The organisation of a vanload of parcels into a delivery route reflecting timed deliveries demands considerable mental as well as physical labour from drivers. All drivers highlighted the vital importance of local knowledge, indicating that this insight was crucial. The introduction of SMS messaging to notify customers that a parcel was on the way introduced the need for further anticipation and route planning in accordance with a ‘manifest’ or schedule that might change at any moment.

GPS navigation systems facilitated the remote monitoring of drivers. Increasingly parcel delivery companies are using telematics technology which has the capacity to dictate more effective delivery routes through Satellite Navigation. The use of navigation systems and route planners was starting to remove drivers’ discretion to plan their daily routes, effectively constraining their autonomy in the labour process. ORION, the On-Road Integrated Optimisation and Navigation system, used by Company B in the US can continually evaluate routing options up to the moment a Company B driver leaves the depot making ‘tens of thousands of route optimisation calculations each minute’, reconfiguring a driver’s pick-ups and drop-offs in real time. Company B claims ‘a reduction of just one mile per day per drive would save it \$50m a year in costs’, including savings on fuel (Company B to save millions with ORION route optimising system, Post & Parcel, November 1st, 2013). Company B was trialing its telematics system in the UK with data from drivers’ handheld mobile devices and vehicle telematics systems producing algorithms which then define the labour process; drivers are given an iPad dictating optimal routes in terms of time and mileage and texting anticipated delivery times to customers. Recalling Gregson’s proposition that algorithmic optimisation and routing software accelerates circulation through the annihilation of space by time a Company B union rep described the use of metrics to calculate delivery times:

‘Every route in this country is timed. There’s a time element put on every route. So, every route you would have a certain time allowance for this area around here and they base it on the last 13 weeks of what he’s done over there as an average and then they time it by whatever they do. So that’s how they work – on how many stops per hour you should be doing, how many miles you should do, and they can also look at the way that you can do the route. The new system they’re trying to bring in will actually put it so that you basically are a robot. “This is your first call and that’s where you’re going next”. What it’s replacing is the driver’s brain because at the moment it’s the driver who works out his route. At the moment he dictates where his first stop is going to be, what road to go down. This will replace all that and tell you “This is the way.” It’s got a SatNav on that shows you which roads to take’ (Company B, Union Rep).

As the union rep indicates telematics has the potential to reduce the autonomy of drivers and there was a fear that telematics would remove discretion in a way which might not better local knowledge. Company B was primarily differentiated by its technology, which could sort parcels into a route for drivers, determine their schedule and then automatically text customers with a delivery time within a one-hour delivery slot. Telematics does not just track the location of drivers but monitors the entire driving labour process with the aim of controlling costs and with implications for driver discretion, as a national officer described:

‘The track and trace, effectively you’ve got an industrial engineer in the cab, not only it measures what you do in terms of driving, how much fuel you use - if you are heavy on the pedal. It takes away discretion from the driver in terms of route planning they will come in and the van’s loaded, so they just drive to the route that has been set, (for example) they do it to eliminate all right turns as they take longer’. (Union Officer)

The technology monitors right turns, if the van doors are open (a security issue), when the engine is ‘idling’ and excessive reversing, although the latter provided opportunities for resistance:

‘I know that they brought up excessive reversing, but that was just quite funny because what they discovered was when you actually put the vehicle into reverse you didn’t have to move, but it just registered on the Telematics. So, a lot of my guys just sit there with the lights going like that in reverse and when they get back they go “You put it in reverse 98 times!!”’ (Company B, Union Rep)

For the drivers in our sample the loss autonomy and the potential for technology to determine the labour process was experienced and anticipated as a threat to the quality of their work.

## **Work Pressures: Micromanaging Seconds and Performance Management**

The research evidence also highlights that employers were increasingly using the capacity of the new IT systems to monitor the performance of these remote workers. This monitoring and surveillance also offered the possibility of rendering more transparent the expected daily tasks and targets of delivery workers and monitoring their completion more closely. Personal Digital Assistants (PDAs) or Hand-Held Devices (HHDs) are used throughout all stages of the supply chain; managers are able to track on-screen the precise location of parcels in real time through GPS, whilst drivers capture customer signatures providing automated proof of delivery for both parcel delivery companies and their clients (with phone technology built in to prove delivery in some cases):

Importantly technology mitigates against non-delivery and loss, since local depot budgets bear the cost of claims for loss:

‘It’s very much to protect our business because if we can turn round to the customer and say “Well, do you know what, on the balance of probability we’ve got a GPS that says he was at your front door. We’ve got a signature that’s got your name. The driver has confirmed in a recorded interview that he delivered the parcel to your house. I’m really sorry, but we’re not going to accept your claim.” So, it actually does protect our business and our revenue; and actually protecting our revenue in this sort of day and age when competition is so fierce is really, really important’. (Company A, Depot Manager)

For some drivers the technology provided safeguards for them since it proved that they had made the delivery in instances where customers claimed they had not received the item. However, the PDA also allows communication between depots and the drivers, facilitating management control over the labour process and crucially, non-delivery, through text messages. This was seen by union reps as tantamount to bullying:

‘You don’t need to move into direct threat on the text, you can send one “Are you going to clear today?” Now to an outsider that seems like a reasonable request, doesn’t it, but it doesn’t when you’ve been told back in the depot “I don’t want any missed. I don’t want this, I don’t want that, I don’t want that.” So, when you get that question “Are you going to clear today?” there’s a different inference to that, isn’t there? When we challenge them about bullying and intimidating messages they say to us “That’s not bullying. I only asked.

I'm the manager, I need to know," which is fair comment, but it's the micro-management and that's the pressure, as we said, they're forced to stay out - go back to ones that you haven't been able to deliver, and you have to keep going back and back until it's done'. (Company B, Union Rep)

For unions the frontier of control is the potential of management to use information gathered on the PDA in disciplinary procedures and collective agreements defended against management's ability to do so. In Company A strong union organization meant that attempts to use this information for disciplinary purposes had been rejected – at least for the directly employed drivers they represented. However, across logistics companies' drivers felt subject to the managerial and customer gaze even if the data could not be used directly against them and this was not as clear-cut for drivers on probation. Another manager confirmed that the system tracked non-deliveries by driver with 'red' alerts:

'In the morning the first thing that we do is we come in at half past six and the drivers don't start till seven, so we'll be having a look already at the day before' s performance, so we'll be dealing with that straightaway in the morning. "Why did you bring back this many parcels? Why didn't you deliver that? Why is there a red here?" and then we'll go in the meeting and go through all that again'. (Company A, Manager)

The PDA can be used to monitor not only non-deliveries, but also 'down time' or apparently unproductive working time, as a Company A union rep reported:

'Going back probably six months, certain guys used to come back at a certain time. Now they know here what time your last delivery is by these handheld (devices). They know what time you've done your last collection or last delivery. So every now and again on these (PDAs) it brings up what they call down time. If you have more than 10 minutes / 15 minutes down time on your (PDA) where you haven't done a drop or a collection it comes up showing on the thing saying you've had down time, there. Now if you come back and you haven't done as many collections they'll look at your down time and say "Well, you've come back early and you've had down time here," if you say "Well, I finish at five," and you say "Well, I haven't enough time. I want to finish at five and that's it. I've got ten drops left that I've brought back that I couldn't do," then they'll look at the down time and say "Well, you've had 15 minutes here where you've done nothing". (Company A, Driver)

For directly employed drivers PDAs can ensure drivers are taking statutory breaks in terms of whether the vehicle is stationary, but the pressure to deliver meant drivers could get round this again increasing the porosity of the working day, as a national officer reported:

‘One of the questions we’ve asked our members is “An honest answer. How many of you physically work through your lunch break?” And we’ve been taken aback by the response. They feel obliged to either go on the back of their van and sort the packages out or maybe go on and deliver while the van’s parked up because they need to catch up with their working day and that defeats the object of what a lunch break’s about’ (Union Officer)

One directly employed driver reported parking up and delivering on foot in a shopping centre whilst he was supposed to be on his lunch hour. For owner-drivers breaks are not monitored.

In Company B metrics were increasingly being used to measure, in terms of seconds, every aspect the labour process:

‘There’s 2,300 delivery drivers in the UK and two people timed the routes for the whole of the UK - two people in an office’. (Company B, Union Rep)

This was linked by union reps to shareholder demands at multinational level, ‘instead of being a service related industry it became production’. Measurement includes the time taken from the doorstep to return to the van with drivers being questioned if they took extra seconds and similarly the time taken from placing the key in the ignition to pulling away.

The wider context to the calibration of worker movements through metrics and in terms of speed-up in the supply chain was captured by a Company B rep as ‘micromanaging seconds.’ The concern of the Company B reps was the potential for managers to ‘take this data and apply it to the workforce in a bullying way’.

In company C home couriers similarly reported increasing levels of monitoring and surveillance coupled with heightened performance management regimes. The micro-management of how and when they delivered their parcels as well as the notifications they were required to send to customers was of growing concern. All highlighted that Company C managers monitored their activities daily to ensure that they adhered to the required time slots for delivery. One respondent stated that he was aware of the daily monitoring, suggesting that it was like being watched by big brother. Failure to adhere to the required timings, could result in being placed on ‘improvement notices’ for up to six months. Respondents in this company were eager to highlight that the growing levels of monitoring and surveillance allied to punitive measures employed by the



company were seemingly at odds with their self-employed status. Overall the surveillance of self-employed drivers and home-couriers through technology, along with the control exercised by the companies through depot managers, appears to be consistent with worker status as declared in the Employment Tribunal judgements outlined above. Work relationships are dependent and, with limited access to union representation, self-employed drivers were in an unequal bargaining position.

## **Conclusions**

The research evidence has highlighted the impact on both job and work quality of supply chain pressures for parcel delivery workers. In terms of work quality the evidence highlights the significant role of technology in providing coherence to the supply chain. Technology tracks the seamless movement of products, from producer to consumer, thereby protecting retailer value and minimizing loss. In response to retailer control over the supply chain and increasing competitive pressures technology also serves to speed up the velocity of circulation. Within this context the autonomy and discretion drivers may have once enjoyed, determining their own routes, deploying local knowledge, offering what they regarded as a service to a community is eroded. In turn the routing software plots their working day effectively removing their discretion and their capacity to make decisions and commodifying delivery.

Technology has the capacity to not only specify drivers' daily routes but also to monitor every moment in the driving labour process. As highlighted previously Gregson's (2017) argument that algorithmic tools and routing software accelerate circulation through the annihilation of space by time, but also offer the possibility of closer and tighter performance management for these atomised workers is highly pertinent in this context. Drivers are subject to increasing work pressures resulting from the daily targets, levels of monitoring and the possibility of constant surveillance. Both a managerial and customer gaze extends over the labour process and in company C in particular, a low-cost model resulted in the most pernicious performance management regime.

While the erosion of autonomy impacts on directly employed drivers, the level of surveillance and organisational control exposes the fiction of 'self-employment' for owner-drivers and home couriers. The mixed resourcing model, in the form of directly employed workers, owner-drivers and home couriers allows logistics companies to cut the costs of non-delivery. Where there is existing union recognition collective agreements allow unions to have some control over the ratios of self-employed workers used by companies and ensured that technology could not be used for

disciplinary purposes against drivers – this is the frontier of control for unions. Our case studies provided no evidence of mainstream trade unions organising the self-employed workers that their members work alongside, although the unionisation of Citysprint, Deliveroo and Hermes drivers, involving legal cases against these companies, shows that it is possible.

The high demand for home delivery means owner-drivers had some limited power in the labour market and could move from company to company – (self-)employment rather than job security (chapter 1). Yet pay could be variable, with delivery rates subject to cuts and income dependent upon long hours. Home-based couriers particularly referred to their daily apprehension as to whether sufficient parcels would be dropped off at their homes for delivery, which could result in them effectively working for less than minimum rates of pay once hours were taken into account.

The evidence presented in this chapter has highlighted the importance of understanding the dynamics of job quality, as an outcome of the labour process and the frontier of control reflecting power dynamics within the employment relationship (Simms 2015, Hoque et al., 2017) – a fluid and permeable concept. Yet it is also clear that dependent self-employment is located within the political economy of logistics, but also a national institutional framework that legally and fiscally promotes self-employment (Behring and Harvey, 2015). In conclusion the evidence demands that contractual status – namely ‘disguised employment relationships’ (ILO, 2014) - is a key dimension of job and work quality particularly in the way that it facilitates unpaid working time and removes what is insufficiently asserted in the job quality literature: employment rights.

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