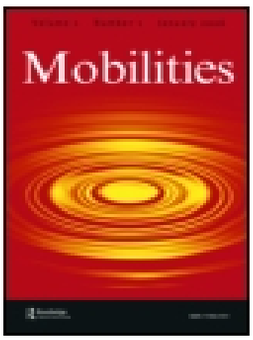

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Logistics at Work: Trucks, Containers and the Friction of Circulation in the UK

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ABSTRACT *This paper examines logistics at work, focusing on owner-drivers in the UK container haulage industry. It draws on qualitative research conducted in south-east England in 2013 to show that the just-in-time 24/7/365 delivery required by logistics purchasers, and offered by logistics providers, is achieved in the UK logistics space through drivers displacing work, stretching time and running out of time. The location of owner-drivers in the logistics precariat is established, as is the relationship of financial precarity to the circulation of containers in the UK logistics space. Through focusing on logistics as physical real-time circulation, and not just logistics as power and discipline, the paper demonstrates the importance and effects of the friction of circulation in terrestrial (and maritime) space. It further establishes the effects of precariatisation on logistics labour in UK container haulage. These are: a crisis in labour supply, the Eastern Europeanisation of the sector and increasing pressures to illegal working practices.*

KEY WORDS: Logistics, Work, Containers, Trucks, Circulation

1. Introduction

Research across the social sciences in sociology, human geography and international relations, and specifically in mobility studies, transport studies, economic geography and security studies, has begun to recognise the importance of flows of goods, and not just people, in globalisation (Birtchnell, Savitsky and Urry 2015), and highlights the significance of logistics to modern life (Cowen 2014; Neilson 2012). Given the diverse characters of these fields, both conceptualisation and empirical focus vary. For work in the mobilities paradigm, the prevailing motivation has been to show the importance of distinctive forms of socio-technical mobility in the constitution of modern social life (Sheller and Urry 2006). Particular attention has been afforded to studies of auto-mobility (understood in terms of the car) and aero-mobility, alongside train, bus and coach travel (e.g. Adey 2008; Bissell 2010; Hannam, Sheller and Urry 2006; Jain 2011; Laurier et al. 2008; Watts 2008; Wilson 2011). A small but growing

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body of research in this canon, however, is beginning to examine freight movement, focusing on the (im)mobility of the intermodal shipping container (Cidell 2012) and on the occasional overflow of its contents (Cook and Tolia-Kelly 2010; Cresswell and Martin 2012).

For some working in the mobilities paradigm, the turn from people or passenger flows to freight is reason to argue for a recovery of the sea and maritime space in the social sciences (Anim-Addo, Hasty and Peters 2014; cf. Sekula and Burch 2011). The emphasis here increasingly is less on the container and more on the ship, ships' mobilities and shipped mobilities, as part of an emergent concern with the rhythms of movement at sea (Peters 2014, 2015). As such, there are points of potential connection between mobilities research and a sub-field of transport studies dedicated to seaports and global shipping networks (e.g. Ducruet and Notteboom 2012; Ng et al. 2014). However, as commentaries on various attempts to bridge mobilities and transport research remark, those connections flounder (Shaw and Hesse 2010). This is largely on account of divergent conceptualisations of spaces, networks and flows and the gulf between the primarily culturally inflected mobilities turn and the positioning of the ports/global shipping literature within debates on urbanisation and economic geography and sociology (e.g. Ducruet and Lee 2006; Jacobs and Notteboom 2011; Notteboom, de Langen, and Jacobs 2013; Olivier and Slack 2006; Wang et al. 2007). The two fields are as two ships passing in the night.

Whilst the majority of cargo-focused mobilities and transport research continues in different ways to emphasise shipping and container flows as materialisations of maritime space, others working in these fields have turned to examine cargo through the logistics revolution and logistics space. Research in economic geography, security studies and mobilities has built on the business studies literature, where the focus tends to remain more narrowly on supply chain management (Ballou 2007), to highlight logistics as a new form of what John Law long ago identified as 'long-distance control' or control at a distance (Law 1986). It has shown how logistics can be understood as a genealogy of packaged efficiency (Martin 2014) and as a means to constituting supply chain security, in which the seamless flow of goods through borders rests on the conjuncture of transnational regulations, the routing of goods through particular gateway ports or passage points, data surveillance, labour discipline and risk management algorithms (Cowen 2010, 2014; Gutiérrez, van Meesnijk, and Arrowsmith 2012). In contrast, research on logistics' economic importance emphasises the increasing coordination of supply chains. It has shown how, whereas previously distribution followed production, the logistics revolution has led to distribution being subsumed within production and consumption (Hesse and Rodrigue 2004); it offers typologies of logistics functions (Coe 2014) and explores the inter-firm dynamics of logistics providers (Aoyama and Ratick 2007). This latter work highlights the importance of cost minimisation and efficiency for logistics firms. The implications for logistics as labour are considerable, but they go largely unexplored in the literature: most commentators, relying on Bonacich and Wilson (2008), do little more than label labour as the 'dark side' of the modern logistics revolution. As such, one of the defining features of contemporary social science research on logistics is its tendency to recite logistical power, rather than examine the effects of that power.

The exceptions to this generalisation are the handful of studies that have considered the implications of the logistics revolution for labour. What little research there is focuses primarily on changes in port and maritime work and is largely US centric.

Early studies of the decline of stevedoring and longshore work in the USA, consequent upon port automation and containerisation (Herod 1998), have been supplemented by studies of global seafarers (Sampson 2003; Sampson and Wu 2003) and of the effects of post 9/11 securitisation on US port labour (Cowen 2007). To this can be added Belzer's (2000, 2002) studies of the deregulated trucking industry in the USA. However, Bonacich and Wilson's pioneering (2008) text, *Getting the Goods,* remains the only synthetic treatment of labour in the logistics revolution. Focusing once more on the USA, and particularly the ports of Los Angeles and Long Beach, and looking across maritime, port and landside (rail, road, warehousing and distribution centre (DC)) work, Bonacich and Wilson highlight the contingent character of much logistics work consequent upon widespread deregulation, particularly in seafaring, trucking and warehousing (see also Gutelius 2015). They show the increasing racialisation of the work and link contingency to weakened unions and declining wages and working conditions. At the systemic level, they relate these changes to enhanced retailer power in global supply chains, particularly the capacity of major retailers (e.g. Wal-Mart) to drive down shipping and distribution costs and its effects on the logistics sector, notably outsourcing and a general 'low road' labour/'race to the bottom' approach. As such, logistics workers, whom Bonacich and Wilson describe as 'serv(ing) as the circulatory system of global capitalism' (2008, 22), and on whom the entire system of global production and consumption depends, can be readily identified with 'the precariat' (Standing 2011).

Bonacich and Wilson's study has much to commend it. Nonetheless, there are at least two reasons why it provides a starting point for research on logistics labour rather than a definitive statement. The first is that it is US centric and US specific. Notwithstanding post 9/11 moves to secure global trade in ways which comply with the US stipulations, there are specificities about the global–local freight interface which make the USA unique in how logistics is coordinated across ocean and land-based activities.[1] These, plus regulatory distinctions, make it a particular rather than a general case and, as Coe (2014, 239) argues, there is an urgent need to examine empirically the intricacies of global–local freight distribution systems in various parts of the world. This is not just because this is the meeting point of global and local but also because it is here that the pressures exerted by logistics purchasers on logistics providers to cost minimisation and efficiency are most keenly felt. It is at the global–local interface, at the point where thousands of containers offloaded from a ship to port stacks are coordinated to become landside moves, that logistical work at the bottom of the food chain, or the dark side of logistics, comes into view. Second, Bonacich and Wilson's study predates the global financial crisis, after which the volume of global trade declined dramatically. The effects on logistics labour can be anticipated to be considerable.

The paper draws on both these points to examine the global–local interface in the UK, with a particular emphasis on the container trucking sector. The situation in the UK trucking sector has been described by both industry insiders and policy-makers as 'the ticking time bomb of logistics' on account of an ageing labour force and profound recruitment crisis ('Lines Blame Shippers', 2014). The paper draws on qualitative fieldwork conducted in South-east England in 2013 to show that financial precarity in the container sector is part of the reason for 'the ticking time bomb' and that the contingency identified by Bonacich and Wilson cuts across different national contexts. Like the USA, contingent piece work in the UK and its effects, particularly in recessionary times, exert their influence on labour supply. Yet, precarity is but part

of understanding the dynamic of the UK logistics space. In contrast to the US situation, port geography, and particularly the effects of overcapacity in the south-east gateway region, had profound effects on the container trucking sector post the financial crash of 2008, leading to buyouts and mergers, closures of haulage offices, a decline in the amount of work available through specific ports and changes to patterns of contingent working, all of which increased financial precarity for some. At the same time, the intersection of EU-regulated driving hours with the type of time–space coordination required of logistics providers by logistics purchasers has created difficult, stressful and often intolerable working conditions for many. In more general terms, whilst logistical power promises the annihilation of space by time and materialises that as supply chain coordination for logistics purchasers, the realities of logistical provision in the UK disclose a friction that has effects on labour supply. What appears to be a crisis of labour recruitment in the UK logistics sector is therefore argued to be a crisis borne also of a collision between calculative logistical power and the finite limits of real-time circulation in physical space.

The paper is structured as follows: a brief overview of the UK trucking sector is first provided, identifying key trends, work cultures and the regulatory context (Section 2.1). Section 2.2 explains how the trucking sector connects to container shipping, whilst Section 2.3 uses qualitative data garnered from the owner-driver sector to give a sense of typical working days and conditions for container truck drivers in the UK. It establishes how just-in-time principles for logistics purchasers translate to time–space coordination issues for truck drivers. Section 3 addresses the contingency and precarity that characterise work in the sector. It shows how financial precarity is an effect not only of independent contractual piece work but also an inevitable consequence of the circulation of containers in the UK logistics space. In Section 4, and by way of conclusion, the wider implications of these findings for debates on the time–space of logistics and for logistics labour are discussed.

2. Landside Logistics in the UK

2.1. Trucking, Driving and the Governance of Driving Time

In the now voluminous literature in sociology and allied disciplines on auto-mobility, auto equates to the car, whilst driving is understood as car driving (e.g. Dant 2004; Miller 2002; Thrift 2004; Urry 2007). Occasionally, auto-mobility relates to work through an emphasis on commuting and the car as a mobile office (Edensor 2003; Laurier 2004), but mostly it constitutes a spatiality that, in accordance with social theory of modern life, is defined by the speed of the car and space of the motorway (Merriman 2007). Absent from this literature are other forms of work-defined auto-mobility and which constitute the motorway as a distinctively different driving experience and practice. Notable here is truck-work.

Some 380,000 heavy goods vehicles (HGVs) were licensed in the UK in 2013 (FTA 2014) to which can be added an unquantified but large number of continental EU-registered HGVs. Lumbering along motorways in the ‘slow lane’ at speeds between 50 and 56 mph, these vehicles and their drivers (253,000 HGV drivers in employment in the UK on 2013 figures – FTA 2014) are the workhorses of land-based logistics provision in the UK. Their speed, which contrasts markedly with the speed of the car that stands as a metaphor for the hyper-speed of modern mobile life, is an effect of cost minimisation and fuel efficiency. With low vehicle fuel economy

and fuel costs estimated by the owner-drivers in the study to account for up to 40% of operating costs, steady slow driving is critical for haulage companies to make money from moving goods around.

Notwithstanding the importance of trucks and truck driving to the UK's economy, Hollowell's (1968) study of the lorry driver remains the sole piece of substantial sociological research on the UK truck driving. It is a classic industrial sociology study of its time, which emphasises the career structure of drivers and work hierarchies. The latter are defined by different modes of occupational freight-related driving ('shunting', 'trunking' and 'tramping' or off-road yard/warehouse work, day workout on the roads and working long haul away from home, respectively) and the class or size of the vehicle driven (vans and light goods vehicles and heavy goods vehicles). So, whilst 'shunting' work, for example, driving forklift trucks around a yard/warehouse/DC and vans on local deliveries are at the bottom of the drivers' occupational hierarchy, at the top are HGV 1 drivers on 'trunking' and 'tramping' work, typically driving containers, refrigerated units and 'curtain-siders' the length and breadth of the motorway network.

Hollowell's study also draws attention to work cultures. Heavily masculine but highly individualised, truck driving, even in the 1960s, was not strongly unionised. It appealed to what would now be called nomadism, with those at the top of the occupational hierarchy seeing themselves as 'kings of the road' on account of their skill as drivers in driving these behemoths of the road. Even so, Hollowell highlights the downsides of the occupation, notably the incompatibility between domestic life and 'tramping' work, and points to the pressures exerted on drivers by haulage companies to illegal working, typically through the abuse of working hours.

Hollowell's study was conducted in a trucking sector before containerisation and the logistics revolution. It describes a world in which distribution followed production, where imports sourced internationally were then distributed in nationally bounded space by a largely white labour force and where the organisation of the firm, whilst intensely fragmented, also included a national road distribution network, British Road Services. The combination of globalised production, the logistics revolution, the deregulation of the truck sector in the 1980s and the opening of the UK market to EU competition, notably since 2004 from Eastern European firms, has led to profound changes. Not least of these have been mergers, acquisitions and takeovers, which have led to consolidation into a small number of large UK haulage service providers (or 2PL logistics providers), with assets of thousands of trucks (e.g. Stobart); the Europeanisation of the UK logistics provision, consequent upon entry into the UK market of large, continental EU-based logistics firms (e.g. Norbert Dentressangle, Waberer, Betz); and the increasing importance of the self-employed, UK owner-driver sector.[2] The latter has considerable affinities with the situation in the USA documented by Belzer (2000, 2002). Thus, the owner-driver in the UK truck sector typically owns one or two HGV tractor (or cab) units. They drive the vehicle themselves, maybe employing another person (often a family member), but critically sign on with a haulage firm as an independent contractor from whom they lease additional equipment (typically trailers), who then utilise their labour alongside the direct employees of the firm.

Owner-drivers are paid by the job. Effectively, they are piece rate workers, paid either a rate per mile or as a percentage of the freight rate. Belzer labels their cabs as 'sweatshops on wheels'. He suggests this group of workers earn the least and are the most exploited in the truck driving sector. The reason is clear to see. Retailer power

exerts downward pressure on shipping lines and the overall store–door freight rate; the shipping lines ensure there is enough in the freight rate for their profits, in turn exercising downward pressure on haulage firms. Whilst some haulage firms might refuse certain contracts, or individual jobs, on account of an impossibly low price, others may not, and independent contractors at the bottom of the food chain are the means by which such jobs tend to get done. Not only does this group of workers buffer supply and demand for individual haulage firms, giving them contingent, flexible labour to utilise in accordance with market fluctuations, but they also have the least power in the chain, with the choice frequently being between taking work that doesn't pay enough or not working at all.

A final difference from the situation detailed by Hollowell's study is changes to the governance and regulation of drivers' hours and the practice of truck driving. EU drivers' time regulations place strict, complex restrictions on the amount of driving time and rest time individual lorry drivers can do over three interrelated temporalities: a 24 h day, weekly and fortnightly. These can be overcome through 'multi-manning' in which two or more drivers share the driving, but at an additional cost. For those working exclusively on the UK roads, the most significant of these rules, when combined with the speed of motorway travel, are the 4.5 h limit after which a 45 min stop must be taken, a limit of 9 h driving time in any 24 h (extendable to 10 twice a week) and a compulsory rest time of 11 continuous hours between working days. Weekly driving time limits are up to 56 h but are totalled over a fortnight, which must not exceed 90 h driving. So, any driver driving the maximum of 56 h in one week should drive only 34 h in the weeks either side (VOSA 2011). Compliance is mandatory, is monitored by tachograph data (digital or analogue) which must be retained for one year, and is subject to checks and on-the-spot fines for noncompliance in any stop by the Vehicle and Operator Services Agency (known in the industry as 'the VOSA').[3] The advent of driver surveillance software and Radio Frequency Identification vehicle tracking technologies, alongside GPS load tracking, as part of logistical power (Kanngieser 2013), has also increased management oversight of individual drivers and their driving practices. As a result, individualised work cultures which valorised the skill of driving, the freedom and independence of life on the road, away from an office and managerial oversight, and nomadic identities now find themselves challenged through audit and performance management techniques that are pervasive across multiple occupational groups and a form of tracking surveillance that is regarded by many drivers as 'the office spy in the cab'.

2.2. *Trucks and Containerised Shipping in the UK*

Not all HGVs and their drivers service containerised freight. Nonetheless, 2012 figures show 7.9 M containers being handled by the UK ports (FTA 2014), around 80% of which will have been transported inland by road either to or from the major container ports; the remainder travel by rail. Since each TEU container equates to one HGV/driver unit that amounts to well in excess of 6 M individual HGV container moves on the UK's roads per annum. On any count, that is a large number of box moves and shows the extent to which the UK's motorways need to be conceptualised as spaces of differentiated flow and circulation, and not just as spaces identified with hyper-speed.

The most important UK container ports are Felixstowe, London (Tilbury, Thamesport) and Southampton. Of these, Felixstowe is the most important by

volume, handling some 42% of the UK's container traffic, particularly that on the inbound east-west route from Asia. It handles over 3.7 M TEU per annum. Nonetheless, the London ports, particularly Tilbury, remain important for short-sea feeder vessels from continental Europe and on the deep sea north-south route, whilst Southampton is significant for North Atlantic trade. Haulage firms operating in the container sector are port-centred activities, with the largest firms having offices across the major ports and with truck fleets distributed to service that trade. At the level of owner-drivers, most will rent yard space proximate to one port. In the haulage sector, however, mobile assets can easily become spatially fixed assets. This is because whilst drivers are mobile workers, they are not as mobile as trucks, for all the classic reasons that account for labour's immobility. As with stevedores, the capacity of individual drivers to work therefore is highly dependent upon the capacities of individual ports to continue to receive cargo. In the UK, those capacities are currently in a heightened state of flux, posing major issues for haulage firms in the container sector. This is for three reasons.

First, at the structural level, the financial crisis of 2008, the global downturn and resultant contraction in global trade led to a considerable decline in the containerised freight volumes passing through the UK ports. A situation of continuous growth from the 1990s to 2007, which had fuelled both the growth in the owner-driver sector and fleet expansion in large haulage firms, was followed by a 25% volume collapse in 2009. In 2013, container traffic was still 12% below 2007 figures according to Department for Transport statistics available at https://www.gov.uk/government/statistics/port-freight-statistics-2013. Redundancies, lay-offs and rationalisation were the order of the day in the haulage container sector; offices were closed and activity concentrated around the major container port of Felixstowe; and in the owner-driver sector, large numbers of drivers went under, as the haulage firms to whom they were contracted reduced the piece rate for jobs, anecdotally by as much as 30%.

Second, the trend to ultra-large container vessels, now carrying in excess of 18,000 TEU, continues apace, driven by Maersk, the major player in global liner shipping. Only a few of the UK ports have the infrastructure to handle vessels exceeding 13,000 TEU, let alone these super-sized vessels. However, this is not just a capacity problem for certain of the UK's container ports. Time spent in port is uneconomic time for shipping lines, and there is real pressure on the key east-west trade route to reduce European stops to one port of call and thus to cut east-west journey times still further. The possibility here is that the UK ports will no longer figure as ports of call on this route and that the UK east-west and west-east trades will be serviced instead via feeder vessels on the short sea route from the main continental European ports, notably Rotterdam.

Third, there is port overcapacity in the UK south-east gateway region. This has been triggered by the opening of London Gateway in 2013. Gateway is an investment of the Dubai-based DP World and is hard by London Tilbury (currently owned by Forth Ports) on the Essex coast. It is also a challenge to Hong Kong-based Hutchinson Port Holdings' (HPH) market dominance in the south-east region. HPH own and operate Felixstowe, on the Suffolk coast, and London Thamesport, on the Isle of Grain on the south side of the Thames Estuary in North Kent. Industry insiders report that in 2013, whilst DP World was offering 'honeymoon deals' to the liner companies to shift their UK south-east gateway port of call to London Gateway, Hutchinson was simultaneously protecting Felixstowe by sacrificing Thamesport as a deep seaport.

Although yet to fully work itself out, the effects of the global downturn, port overcapacity and the coming on-stream of new port infrastructure have been considerable. Although proximate in maritime space, the UK's main container ports are relatively distant territorially, with it taking between one and three hours to travel between them by truck, assuming no delays. The ports are also positioned differently with respect to the UK's motorway network, particularly the distance to the key DCs of the Midlands, and since most sit at the ends of tentacles on the 'A' road network, congestion's effect on journey time and fuel costs is a significant locational consideration. For logistics purchasers, port of entry is irrelevant: all that matters is cost minimisation and just-in-time delivery. However, for logistics providers, the details of the port–road network interface matter acutely to achieving cost minimisation. Changes in port calls can and will have effects in terms of locations for haulage firms, making work from some ports less profitable than from others and necessitating a reorganisation of labour as well as truck assets. As an example, the sharp decline in the volume of containerised freight through Thamesport in 2013 led to the closure of haulage offices there and to a collapse in the amount of container work available through that port. For drivers based out of that port, the options became increasingly stark: to relocate to where the work is (currently Felixstowe and Tilbury, but potentially London Gateway) or to attempt to 'pendulum work' containers across the south-east ports.

In the following section, a day journey with one driver is used to establish the routines of a typical working day and conditions of work in the owner-driver sector of containerised haulage. It is taken from a wider body of qualitative fieldwork conducted over a nine-month period (April 2013–December 2013), in and around a yard space rented by five owner-drivers (Table 1).[4]

Access to the yard was mediated by one key informant (D1). The research involved multiple informal conversations with these drivers over the period, both in the yard and by mobile phone; a data log of all journeys undertaken in the research period by D1; two weeks of data logs from D2; and two day journeys as a passenger with D1 in November 2013. Additionally, the major UK online truckers' forum (Truck Net UK) was monitored for the equivalent period to provide context.[5] The research was part of a wider study on the spaces of circulation and their relation to illicit economies, which is not reported on here. That research involved 28 formal

Table 1. The Yard: summary characteristics

Drivers	Age range	Ethnicity	Driver licence class	Type of driving	Employment status
D1	45–54	White-British	HGV 1	Trunking containers	Owner-driver; 1 cab unit; independent contractor to Firm 1
D2	55–64	White-British	HGV 1	Trunking containers	Owner-driver; 1 cab unit; independent contractor to Firm 2
D3	55–64	White-British	HGV 1	Trunking containers	Owner-driver; 1 cab unit; independent contractor to Firm 1
D4	45–54	White-British	HGV 1	Trunking containers	Owner-driver; 2 cab units; independent contractor to Firm 3
D5	45–54	White-British	HGV 1	Tramping curtain-siders	Owner-driver; 2 cab units; independent contractor to Firm 4

interviews with representatives from the European logistics and freight sectors. It included interviews with two firms in the UK containerised freight haulage business, whilst other interviewees also offered views and opinions on UK container haulage.

2.3. 'Doing the Boxes': Container Work in the UK

Figure 1 records the number of journeys conducted per week by D1 in the period of research.

At their simplest, working days involved an out-and-back 150–200-mile trip from the yard (invariably starting at 05.00) via the A2, M25 and M1 to a DC in the Midlands (typically Coalville in Leicestershire or Kettering in Northamptonshire). Normally, this type of journey would take around 3 h, with D1 aiming to meet a delivery slot timed usually for 08.00, with a booking-in time window of 15 min scheduled at 07.45. Unloading by the DC workers would take anything from 1 h minimum to an average of 3 h, with 8 h being the longest delay experienced during the research period. The remainder of such a working day would involve driving the empty container back to Thamesport and then a wait to collect the box for the next day's work, followed by a final drive back to the yard, where the truck was parked overnight. More complex working days involved either multiple short, 'local' journeys, in which more than one container was moved in a day, or the pendulum working that became more commonplace during the research period, as a consequence of the structural changes outlined in Section 2.2. An abbreviated version of this latter type of typical working day is outlined below and is illustrated by Figure 2.[6]

2.3.1. November 2013, Somewhere Near Thamesport

> Up @ 04.00; leave @ 04.30 to get to the yard for 04.45. D2 is already leaving (04.40); D3 is not in sight yet, but then he went to Cheltenham yesterday and didn't get back till 20.00. D4 has already left and D5 is 'up country, tramping'.

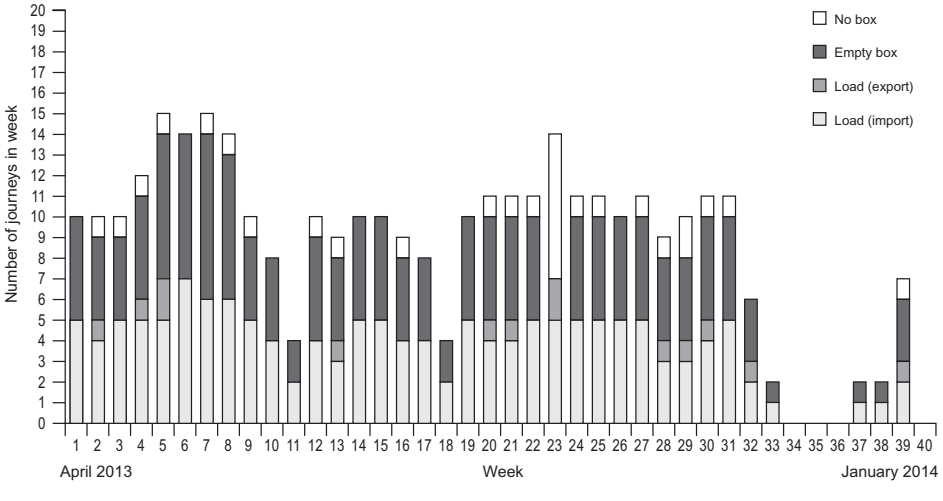

Figure 1. Number of journeys per week by Driver D1 (April 2013–January 2014), showing whether carrying a load from a port (import), to a port (export), empty containers and no container.

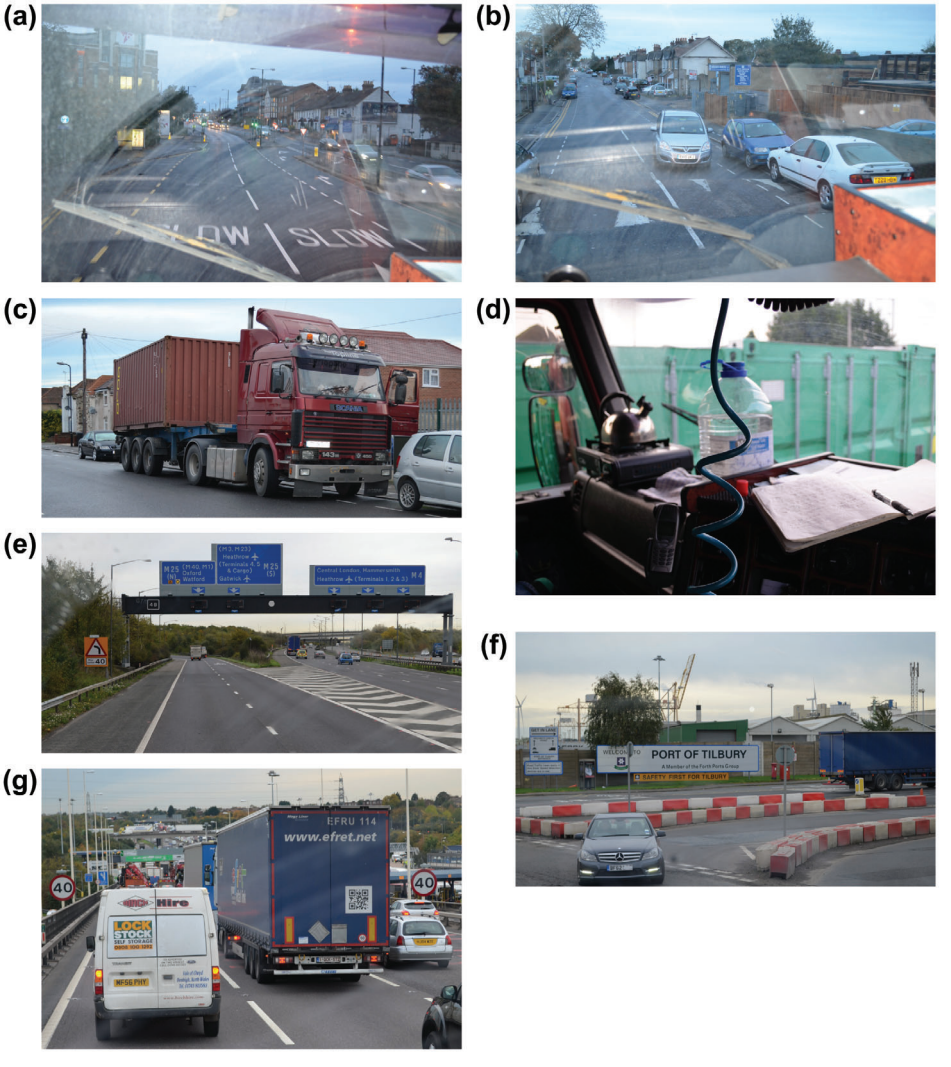

Figure 2. Montage of a typical working day (D1). (a) Finding the way, (b) into a housing estate, (c) parked up, (d) brewing up, (e) on the road again, (f) entrance to the port of Tilbury and (g) queuing on the Dartford crossing.

The box (a standard TEU, empty, picked up from Pentalver's @ Tilbury the previous evening) towers high above on the trailer.

After vehicle checks @ 05.00 we're off … slowly … 50 mph, Radio 2 playing, heading to Slough.

On the M25 it is already busy (@ 05.30am). This is why we're off so early. Trucks are out and about, so too are the white vans, coaches are taking folk up to London, and the cars (ant-like beneath us) are starting to set off. Setting off this early means the road works are clear. These road works are extensive; it matters to get through the A3 – M4 stretch before 06.30.

06.50: off the M4 is a different story – first of finding where we're going (Figure 2(a)). Up and down the highway we go; eventual consultation with the map; then a realisation that what was the third roundabout on Google was actually a big traffic lights set … Round we go, with a great big artic. Then it's into an ordinary street on a housing estate. D1 does intricate, delicate manoeuvres simply to get the thing into the street; motorists reverse and go on the pavement to avoid us (Figure 2(b)). We drive down the road and find the place [a self-storage warehouse facility], but the gates are shut and there are double yellow lines outside, so D1 eventually parks blocking someone's gates (Figure 2(c)). It takes several reversing manoeuvres just to do this.

07.15: we have arrived, an hour and three quarters ahead of the booked slot of 09.00. The issues with 'parking up' are part of the gamble here. Starting at 05.00 means no one will be about and parking may be an issue, like it has been today. There is a choice here, as D1 puts it, between 'getting up @ 0 fuck hundred' and having a clear run round the M25, to park up and wait, or burning fuel parked on the M25 and arriving on time. This is a 'no brainer' in terms of fuel economics. But what it means is that we sit about parked up for a long time. We have breakfast – pain au lait, jam and tea, all made and brewed in the cab. (Figure 2(d))

No one turns up at the self-storage facility until 08.15; we eventually get into the yard @ 08.25, but the men who are to do the loading don't arrive till 09.30. Waiting and sitting around for long periods of time are a pervasive theme of the day …

After 3 h of box loading of 'cargo' in Slough we are back on the road for around an hour's run round the M25, over the Dartford Crossing and down the A13 to Tilbury (Figures 2(e) and (f)). During the course of this D1 rings his transport planner at the haulage firm to tell him where we are on the road. It is his job to get D1 a vehicle booking slot (VBS) for Tilbury. He gets him one for 14–15.00 and also emails through his job for tomorrow, Chelmsford (Essex) out of Thamesport.

2.3.2. Inside Tilbury

13.15: We head down towards 39 Berth (the container export terminal). On the left is the queue for Pentalver's (the terminal for returning empty containers to); on the right is the queue waiting for their VBS to get into 39. We get into the queue on the right. There are lorry drivers asleep in the queue ahead of us, the curtains in their cabs drawn.

D1 has a snooze in the bunk behind the seats. I stare at the back of a MSC TEU that is the view six inches in front of the windscreen and over at the Pentalver queue. There is a marshal out in the road trying to keep order and to stop drivers from queue jumping.

14.00: D1 heads off to drop the TEU. I jump out of the cab and go for a walk, because going through 39 Berth is not an option for passengers. This is the one zone of the port that is biometrically controlled. 20 min later we head out of 39 Berth, running with no box, to the diesel pumps. There D1 talks to another trucker: he left Birmingham @ 03.30am with an empty box. He got to the Pentalver terminal queue @ 06.00 but didn't get into Pentalver's until 09.00. Then the top-lifter servicing his vehicle broke down. He has only just got out of Pentalver's (14.20). Not only had he had the problem with the top-lifter but Pentalver's didn't have a box for him to take out because they hadn't managed to 'de-gas' the boxes that had come in from Vietnam. Pentalver's come in for much abuse between the two drivers. This second driver has to get the empty box to Barking to load with wine, and then get to Felixstowe. D1 says, it'll be touch and go whether he makes it to Felixstowe before the duty hours run out. 'So, that'll be him parked up in a lay-by with a load of wine in the back'.

D1 fills up with enough diesel to get to Chelmsford and back tomorrow.

Then it's down the A13, round the M25 and down the A2 again.

2.3.3. Inside Thamesport

15.30: We arrive at Thamesport, after much queuing on the Dartford Crossing and M25 (Figure 2(g)). After Tilbury, this place is deserted. We go into the truck park; there are 9 trucks in there. 'Business most definitely is not booming here' says D1. A fox sits in the middle of the truck park.

We go in the café – for the box we are to collect has not been released. A total of £85 has been taken all day. D1 remembers the days when folk queued to get in, and it was standing room only. Now it's just us – although two Poles leave as we come in. We sit about, drink two mugs of tea and eat a huge slice of cake each whilst waiting for the box to be released. J, who is in charge of the café, says she'll close it next week @ 4pm. It used to be open till 9pm, or even 10pm. Such is the change. There is only one Evergreen boat coming in a week here now, along with a few MacAndrews feeder boats from Rotterdam.

16.10: D1 goes to the office and asks again about the box – 'not commercially released'. We sit around. This is boredom beyond belief. There is nothing to do here, other than look at the gathering gloom out of the window.

Eventually, when D1 is giving up hope and all patience, the box is released. He goes to collect it while I hang about some more in the café and stare out of the window. The skies here are big – this is an atmospheric port. North Kent. There are notices inside the café in English and Polish to be responsible for waste and not to feed the foxes, which are vermin and carry disease. Outside, a trucker puts some food down for the fox.

> We eventually leave Thamesport and get back to the yard @ 17.10, over 13 h after we left. In that time we've been driving for 3–4 h; the rest of the time has been spent 'hanging around' – loading, queuing and waiting.

This typical working day confirms that container work, like much truck work, is a long-hours job characterised by highly antisocial working hours, whose effects on domestic life have been well documented (Hollowell 1968). It is also a distinctly sedentary form of work, requiring not just patience but a high boredom tolerance threshold, simply to survive the considerable periods of time spent waiting and queueing. The data also show how the UK container trucking is produced, not just through the flow of goods and empty boxes between ports and logistics purchasers, but also through a set of connected spatialities. These are the cab; a repeatedly driven part of the trunk road and motorway network, in this case, the A2, M25, M4 and A13; and key ports, their inbound/outbound terminals and box storage parks (e.g. 39 Berth and Pentalver's at Tilbury; Thamesport). Daily working life is lived in and through the space of the cab. This is not just a space of work for drivers, but a home from home, as well as a space for making something of time spent waiting. Eating, sleeping, reading, watching TV, gossiping on mobiles (to fellow drivers and 'the missus'), listening to the radio and music all occur in this tiny confined space, especially whilst others load and unload the container's contents. These activities can be regarded as arts of filling time whilst waiting, in a manner similar to the arts of catching ferries identified by Vannini (2011). Roads repeatedly driven are known as driving commuters know them, intimately, by junctions, and by the state of roadworks and their anticipated effects on travel time (Edensor 2003). The same is the case with key areas of ports, with Pentalver's in particular coming in for an emotive response, grounded in the boredom and frustration of uncontrolled queueing, delays brought about by frequent equipment breakdowns and the lack of respect shown to drivers. Difference is encountered in the specificities of each day, with weather, traffic conditions, destination and cargo, all conjoining to make each working day different. Cargo, however, remains largely inconsequential for drivers, disclosed only at the point to which a box is delivered for loading/unloading and through its effects on the job of driving. It can be distinctive, as with the Slough job, which involved multiple goods for multiple households, but is not invariably so, as the data log showed repeated trips to deliver white goods, bathroom suites and wine to DCs.

Such driving is a long way from the nomadism that continues to haunt parts of the roads literature (e.g. Moran 2009). Instead, these drivers' repetitive spatial movements are orchestrated by their transport planner, whose issuing of the next day's job in the middle of the current working day is necessary to coordinate the subsequent moves of each driver–truck combination. Behind the transport planner, however, is often an algorithmic optimisation and routing software, or, at minimum, spreadsheet planning. Drivers' movements are a materialisation, therefore, of the calculative power of logistical tools. However, whilst the tools produce the job for each driver, they do not (at least currently) control fully the time–space coordination of that movement. That remains up to a driver to achieve, but a close examination of the qualitative data shows how little power a driver has in this regard.

Four points matter here. First, there is the conjuncture of fuel costs and congestion in the south-east that displace the start of each working day to the middle of the night. The effect of that is to generate long periods of time spent waiting. Second, waiting is an indication of drivers' lack of power. In the data above, waiting happens

whilst people load and unload containers, when collecting loaded or empty containers and in its most extreme form, in the queue for Pentalver's, where empty containers are picked up or dropped off. Nowhere is there anyone waiting for the driver. If there is, fines occur. Third, there is the timed delivery slot, which provides just-in-time delivery for logistics purchasers, and the VBS, which works to ease port terminal congestion. As short as 15 min at a DC and as long as an hour in a port terminal, these time windows are what drivers have to meet. To do that, drivers utilise waiting tactics. So, time–space compression for some comes through drivers stretching time, by arriving early and parking up. Fourth, the conjuncture of stretching time with the governance of drivers' hours can have the effect of drivers running out of time. Lorries parked up in lay-bys, at the back of service stations or in secure fleet parking are all manifestations of this friction. They show that a driver's capacity to stretch time is finite and that the capacity of time to overcome space in logistical space therefore has its limits. Whereas logistics purchasers may receive goods just-in-time and contracted logistics providers make that promise as part of the service, for drivers, the challenge is to do this without running out of time. At the bottom of the food chain that is not always possible. As well as having repercussions on the remaining time left for driving in a working week and fortnight, the effects of running out of time can also mean spending the night in an insecure lay-by with valuable cargo aboard. To add to working conditions, therefore, is a very real fear of cargo theft or what has emerged as a new form of highway robbery.[7]

3. Container Truck Drivers and the Logistics Precariat

In this section, the emphasis switches from the time–space of the working day for container truck drivers in the UK to general trends and patterns of working. This enables a fuller examination of the contingent qualities of the work, and especially the relationship of container truck drivers in the owner-driver sector to the logistics precariat.

In Belzer's study of US trucking, contingency in the owner-driver sector is an effect of piece work and employment type. The same pattern is disclosed by the data in Section 2.3. The previous extract showed the allocation of the next day's job in action, around midday. Significantly, there was no choice of job involved; D1 was simply told the job. It is also noteworthy that there was no discussion of money or the rate for the job. Indeed, the rate for any job only became known to these drivers a fortnight in arrears, once a financial statement had been received from the haulage firm. The location of this work within the more general category of contingency associated with the logistics precariat is therefore clear. It also has considerable affinities with Gutelius's (2015) research on DCs in the USA, where contingency grounded in worker hierarchies, sub-contracting, the widespread use of temporary agencies and wages below a legal minimum all point to the prevalence of the 'low road' model in logistics. Less obvious from the data extract is how contingency in the owner-driver sector of containerised haulage is also an effect of intra-firm dynamics, of the amount of work available and of the 24/7 delivery slots contracted to logistics purchasers by logistics suppliers. All this is shown through a closer examination of the relationship between D1 and his regular transport planner.

There is recognition in this relationship of D1's preference for work from Thamesport, of his capacity to work the Tilbury-Thamesport pendulum and of his favouring of 'shorter' jobs. In practice, 'shorter' materialises here as a geographical envelope,

bounded at one end by Southampton at the end of the M3, by the A34 in the west, as far as Leicestershire on the M1, up the A12 and A14 to Felixstowe, and from there as far north as King's Lynn in Norfolk. D1 would not accept jobs any further north or west. Consequently, his transport planner doesn't offer D1 such work. In contrast, during the research period, when this regular transport planner was off work, the two owner-drivers contracted to this haulage firm were allocated to another transport planner. One of their instructions to D1 was 'Swansea – 08.00 "tip"'. The response, as reported by D1, was incandescent: 'You cannot be effing serious! Do you know what that means – that's a 02.00 start; then there's that effing toll [the Severn Bridge – £18]; you can stick that job right up yours'. He refused to take it, judging that there would be insufficient profit in it once the additional miles/fuel calculation was factored in. So, whilst there is contingent work that pays, there is also contingent work that doesn't pay enough. The choice owner-drivers face when offered such work is to take it, to attempt to negotiate with the transport planner for something else, which D1 did on this occasion, or not to work. For the logistics service provider though, a driver has to be found who will take the job. This is where pressure is exerted on drivers by haulage firms, typically on those who, although paid by 'the rate', mistakenly equate miles travelled with job profitability.

Compare that situation, where work is available, with that where in the words of the transport planner, 'there's not a lot about – I'm scratching around'. In these circumstances, hierarchies emerged amongst independent contractors, based on perceived reliability and attitude. So, D1 was allocated work ahead of D3. Even so, 'not a lot about' would translate to less than ideal jobs, typically ones with 'a late tip' such as 16.00. The problem with this kind of job is not just that it involves driving in congested traffic, which results in burning more fuel and therefore less profit, but also that it means not being available to be assigned a box for the next day at midday. To take this kind of job can therefore exacerbate contingency; it can mean no work left for the next day.

Yet, contingency for the UK owner-drivers in the container sector is not just an effect of piece rate jobs in 24/7 logistics space and the specifics of their allocation by transport planners. It is also a matter of financial precarity. In the UK, financial precarity is not just about the intersection of the freight rate with piece work at the bottom of the food chain, important as this is.[8] It is also an effect of the UK balance of trade and its effects in turn on container circulation. The import/export imbalance in the UK is such that the number of inbound boxes greatly exceeds the number of outbound requirements. Boxes containing imported goods are returned empty to port storage terminals such as Pentalver's at Tilbury (and see Neilson 2015). As Figure 1 shows, roughly half of all box journeys for D1 in the research period involved empty containers. Whilst there is an attempt to absorb these costs in the freight rate charged by a haulage firm, by the time it gets down to an individual owner-driver, moving empties does not pay much. Even so, it is not as bad as running with no box. But this is what happens when working the Tilbury–Thamesport pendulum (Section 2.3). It is also what happens when drivers have to drive some distance to pick up an empty container for an export load (Section 2.3). Described as 'the wheels are turning but she [*sic*] ain't earning', this is running at one's own expense and the type of uneconomic work that haulage firms pass on to their independent contractors.

The long-term cumulative effects of contingency combined with financial precarity have their clearest effects in what happened in the yard by the end of the research. This has none of the optimism that figures in accounts that see in logistics workers

the political potential to demonstrate the vulnerability of global supply chains (e.g. Cowen 2014; Neilson 2012). By early 2014, of the five drivers in the yard, three had sold off their assets and moved on to other lines of work in and around occupational driving; one was still on the road but was contemplating giving up and retiring after a life of work in HGV driving; and another had had their vehicle operating licence placed under review for illegal working practices. Together, those individual outcomes reflect a situation in which owner-drivers see themselves as faced with tough individual choices, not a political struggle. The absence of current political struggle in the UK is in part a legacy of the overturning of the fuel blockade of the early 2000s.[9] It is also an effect of the subsequent opening of the UK market to Eastern European firms being able to gain competitive advantage through cheaper fuel and cheaper labour; and of the failure, in the eyes of hauliers, of successive governments to do sufficient to address the cost of fuel, which is widely seen within the industry to be putting UK hauliers at a competitive disadvantage. In that context, a politics of social movements based on fuel is seen to have failed, whilst politics more widely is seen to have failed logistics workers. In the logistics precariat of owner-drivers in containerised road haulage, the politics of neoliberalism has been internalised to produce a politics of retrenchment, survival and a 'dog eat dog' world. When working hard legitimately results in little or no profit, and when industry insiders volunteer comments such as 'I don't know how these folk make enough to get by', the choices faced are increasingly sharp. They are between getting out (as happened in this yard), 'running bent' (i.e. illegal working practices[10] – as also happened) and/or 'doing the goods' (i.e. succumbing to the risky but lucrative temptations of cargo theft, carrying illicit cargos or exploiting tax loops through the circulation of goods).[11]

At the systemic level, those hard choices are an effect of the circulation of containers in the UK logistics space and of power in the logistics chain. Boxes are port-centred assets of shipping lines, who also lease boxes from each other to service demand and to counter the imbalances in global trade.[12] So, whilst solving optimisation and increasing earnings through moving an empty container from an importer to a nearby exporter is a theoretical possibility in algorithmic haulage space, effecting that reorganisation is currently impossible. The seamless movement of goods in logistics space comes up against the differential power of shipping lines and haulage firms, proprietary rights in containers and their effects in the circulation of assets in physical space. Whilst haulage firms operating in the UK can just about earn enough from the current configuration, the real casualties are to be found in the logistics precariat: the container truck drivers, many of them self-employed contractors, who move these boxes and the stuff they sometimes contain, and on whom the UK's dependency on the global circulation of goods in turn depends.

4. Conclusion

The primary concern of this paper has been to examine logistics not as logistical power, but as logistics at work in the UK and its effects on logistics labour. By way of conclusion, I consider the implications of the paper's findings for debates on the time–space of logistics and logistics as labour.

Logistics, as a discipline, promises the acceleration of circulation and the annihilation of space by time. It produces this through calculative, algorithmic tools which enable firms, be they retailers or manufacturers, to coordinate inventories in ways that minimise costs and eliminate the need for storage. Nowhere is this power clearer

than in a DC, where containerised goods delivered to a 15 min window by inbound HGVs are offloaded and immediately dispatched to multiple coordinated outbound HGVs that in turn service facilities (e.g. retail stores and factories) across the logistics purchaser's network. Yet, behind just-in-time delivery lies physical real-time circulation. This is what is obscured by an exclusive focus on logistics as discipline and as power. As the paper has shown, to achieve just-in-time requires logistics providers, and specifically drivers, to stretch time. This signals that friction, as the friction of circulation, continues to matter to accounts of globalisation.

The friction of circulation is where time still struggles to overcome space and where there is little sign of accelerating circulation. Friction occurs in both maritime and terrestrial space. In the UK logistics space, it is produced through the speed of merchant ships at sea, which continue to take around 19–21 days to sail from Asia to the UK's main container ports; through the maritime–terrestrial interface at the UK's ports, which notwithstanding terminal automation still takes a minimum of two days for a box to move through; and then through the driver-truck-trailer-box hybrid that takes a further day to move a box at slow speeds through the UK's road network. So, what logistical power presents as the time–space compression of just-in-time is achieved through something like 23 days of 24/7 circulation, minimum. Delays, equipment breakdowns and so forth will mean more.

Once in the terrestrial space of the UK's road network, the friction of circulation is also an effect of movement or auto-mobilities. In the south-east of England, especially during conventional daytime working hours, truck movement can rarely be characterised by 'flow'. More often, it is punctuated, stop–start, clutch-crawling movement or even the vibrations of a stationary engine turning over; witness the M25, referred to colloquially by truck drivers as 'a giant car park' or the M20 which, at the time of writing, is given over to the truck-park known as Operation Stack, as a consequence of disruption at the Port of Calais. There is, then, a stickiness to the circulation of goods in terrestrial space. This needs to be recognised in wider debates about globalisation, which still tend to overplay the hyper-speed and click-of-a-mouse instantaneous movement associated with virtual space.

Finally, through highlighting the importance in the UK logistics space of circulating empties and of running empty, the paper has shown the friction of circulation to also be an effect of moving space, or moving emptiness, and of moving without moving goods, in time. This is the time it takes to overcome space. Just how much of such uneconomic movement occurs in any one economy is a function of the balance of trade in containerised traffic (inbound vs. outbound), and thus indicative of the need to examine the global–local logistics interface in different national contexts. An obvious counter case to the UK, for example, would be a largely manufacturing-based economy, where exports greatly exceed imports. Combined with differential power in the logistics chain, the effect of this imbalance in the UK logistics space, however, is to produce a situation where, for haulage operators, space overcomes time for much of the time. This is the collision between algorithmic, calculative, smooth space and the roughness of real-time circulation in physical space. In more abstract terms, the annihilation of space by time that is achieved in just-in-time, and which is celebrated in accounts of logistics as discipline and power, is itself achieved through masking that logistics as business practice continues to run up against, and can be defeated by, the friction of circulation.

In terms of logistics labour, moving emptiness and moving without moving goods are inefficiencies whose costs are borne largely by a logistics precariat. As has been

shown, that precariat has been produced through logistics as power. Combined with the continual downward pressure on the freight rate that is itself an effect of supply chain power, the effects of the precariatisation of UK logistics are threefold. First, there is the crisis in HGV labour supply, referred to as the 'ticking time bomb' of UK logistics. This is not just a function of an ageing labour force and a failure of labour recruitment, it is also an effect of large numbers of owner-drivers leaving the sector, on the grounds that they are unable to make this already hard work pay. Second, indigenous truck-driving labour, including container-driving labour, is being replaced by large numbers of Eastern European drivers, many of whom work for continental European logistics providers. This is the classic 'race to the bottom' of deregulated markets, based not only on cheaper labour rates but also on cheaper operating costs, given the high rate of duty on UK fuel. In that respect, there is a 'dark side' to UK logistics, just as depicted by Bonacich and Wilson (2008), but of a distinctly European form. Less the 'racialisation' of US logistics labour, this is the Eastern Europeanisation of EU goods circulation, in which the free movement of people enables the cheaper movement of goods. Third, creating a logistics precariat has made the space for illegal working and the illicit economy to make even more financial sense. Reports in the public domain show that drugs, cigarettes and counterfeit goods travel alongside and inside legal containerised cargo and that money is made through exploiting loopholes in the legitimate circulation of goods. For those willing to take the risk, both work to counter money lost through a combination of continual pressures to cost minimisation and logistics' inefficiencies. The 'dark side' of logistics in the UK is not just the contingent labour force it has produced, it has created the conditions in which illegal working is widespread and also made space for the illicit economy to become increasingly parasitical on the global circulation of goods.

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Notes

1. Chief amongst these is that in the USA, container freight rates are 'all in', i.e. they include haulage. In Europe, ocean and haulage rates are separate (Slack and Gouvernal 2011). Another key difference is in the mode of landside freight transport. In the case of the ports of Los Angeles and Long Beach, which form the basis for Bonacich and Wilson's study, much container freight is distributed to inland ports and DCs via double-stacked trains. Truck journeys from the port therefore tend to be short, to the railhead. This continental mode of ocean–land interface has parallels with

parts of continental Europe but does not translate to smaller island states such as the UK and Ireland, where truck transport is much more prevalent.

2. The size of this sector can only be estimated. Of the 7.9 M containers handled per annum by the UK ports, around 80% travel by truck, equating to over 17,000 box moves/day. Assuming each truck works two box journeys/day gives roughly 9000 box-carrying trucks on the UK's roads. With many container haulage firms advertising that up to one-third of their labour force are independent subcontractors, this suggests around 3000 owner-drivers in the sector.
3. Fines are not insignificant. For first offences, they are £2500 for a failure to observe rules on driving hours and breaks, or a failure in record keeping, and £5000 for tachograph noncompliance or falsification of tachograph data (VOSA 2011).
4. The demographics of the yard thus accord with the UK industry as a whole, where the average driver age is in excess of 45–50.This has led to widespread concerns about an ageing labour force and future labour supply (Section 1).
5. Truck Net UK (http://www.trucknetuk.com/phpBB/index.php) was instigated as an online discussion forum in 2009, 'by drivers, for drivers', and covers all areas of professional road haulage. At the time of writing (July 2015), the Professional Drivers section alone has >57,000 topics, >1 million posts and regularly attracts some 20–30 topic threads a day. The most common discussion topics include trucks, trailers and technical details; the highway infrastructure, particularly road works and safe places to park overnight; driving standards, truck driver safety and the reporting of accidents/fatalities; haulage firms, their rates of pay, working practices and reputations as employers and gossip about key contracts and acquisitions, mergers and takeovers; newcomers wanting advice and tips; Eastern Europeans and unfair competition; the regulator (particularly the VOSA); who's seen who (on the road); load theft, illegal working practices and the sharing of stories in the public domain regarding illicit goods. Although not drawn on directly, this material provides an important context for the wider arguments made in the paper.
6. For security reasons, photography is not allowed inside ports. Images reproduced here were taken from inside the cab with the permission of D1 and from the public highway.
7. Cargo theft is one of the major fears of drivers forced to 'over-night' in lay-bys and insecure parking areas. Although this was not encountered by the five drivers in the yard during the study, such incidents are regularly reported on online forums. The now widespread practice of opening container doors when parked up with an empty, to denote 'nothing aboard', gives further testimony to driver fears.
8. In the UK, the separation of the ocean freight rate from the haulage rate means that the shipping lines are able to exert considerable downward pressure on haulage firms. A Felixstowe-based carrier commenting on the situation in 2014 commented: 'Our customers have squeezed us to reduce costs and we have squeezed our suppliers, of which transport companies are one' ('Lines Blame Shippers', 2014).
9. The fuel blockade of 2000 was the one attempt at a mass political action by hauliers in the UK. It was organised by independent hauliers and farmers and threatened to sabotage the UK's economy in days (BBC Online 2000; Hetherington, Wintour and Denny 2000; Doherty et al. 2003).
10. There are a range of practices subsumed under the term 'running bent', but the most common are the abuse of drivers' working hours, tampering with tachographs and/or tachograph data to disguise this, improper maintenance of vehicles and noncompliance with operating licence regulations. If caught, any of these could involve a court case and suspension of the operating licence/s.
11. In line with standard conventions that protect confidentiality, the paper refrains from discussion of any practices observed or reported that might be associated with illicit economic activity. Reports in the public domain indicate that such activities involving truck drivers are relatively common occurrences.
12. Slack and Fremont (2009) give a breakdown of container ownership in 2007. At that time Maersk had 14.7% of world capacity, followed by MSC (9%). The 'top 5' also included other main players in liner shipping, CMA-CGM, Hapag Lloyd and Evergreen.

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