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# **Municipal waste policy and household waste generation: why crossing the threshold matters to the furtherance of UK waste policy**

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Harriet Bulkeley  
Department of Geography  
Durham University  
South Road  
Durham  
DH1 3LE  
Tel 0191 334 1940  
Email: [h.a.bulkeley@durham.ac.uk](mailto:h.a.bulkeley@durham.ac.uk)

Nicky Gregson  
Department of Geography  
University of Sheffield  
Sheffield  
S10 2TN  
Email: [n.gregson@sheffield.ac.uk](mailto:n.gregson@sheffield.ac.uk)



## **Municipal waste policy and household waste generation: why crossing the threshold matters to the furtherance of UK waste policy**

### **Abstract**

This paper connects research on home-based consumption with research on waste policy and governance. We argue that, in order to meet the enhanced goals of waste reduction specified in *Waste Strategy 2007*, UK municipal waste policy needs a far closer engagement with the household, the primary unit of consumption. Opening-up the ‘black box’ of the household, we show why the potential for achieving enhanced rates of materials diversion through recycling is limited in certain neighbourhoods. We demonstrate the potential for furthering waste reduction through intensifying existing practices with the ‘arts of transience’ and by engaging with the lumpiness of household waste generation. The paper considers the policy implications of these findings and offers a number of suggestions as to how such insights might be taken up within UK municipal waste policy.

### **1: Introduction**

Waste reduction is a central goal of EU and UK municipal waste policy. However, whilst reduction is an established principle, its meaning is more open-ended, caught between inflections which, on the one hand, are instrumental – emphasising various means to waste avoidance through materials diversion – and, on the other, utterly profound, entailing the most radical changes to have affected household waste management in the UK for over a century (Bulkeley et al. 2007; Chappells and Shove, 1999; Davoudi, 2000; Gandy, 1994; c.f. Strasser, 2000). This attempt to transform what are the routinised, uncontested household waste practices of post austerity, consumer society Britain, goes to the heart of contemporary consumer cultures, whilst simultaneously emphasising the material properties of consumer goods. ‘Rubbish’, then, is no longer a homogeneous category, merely discarded and carried away to some destination unknown, unimagined and uncared about. Rather, we are exhorted to work on and with things and materials in their discarding, to clean them, to evaluate the substances absent and present in things, to separate materials out, and to store them for increasingly complex collection services that are themselves choreographed around materials difference. As well as caring about what we buy, where it was made, who made it, in what conditions, and what is in it, ethical consumption now extends to include how, where and why we get rid of our discards, be these cars, computers or carpets on the one hand, or the plastic, paper, glass, tins, jars and card that comprise packaging materials on the other.. A corollary of this transformation in municipal waste collection, we contend, is that the traditionally separate fields of waste and of consumption need to come together. Rather than seeing waste as what is left once consumption is over (an assumption that characterises both the waste literature and much of waste policy), the paper positions issues of household waste generation within understandings of consumer culture, acknowledging that waste reduction is extending the social, cultural and economic lives of things (and materials) by another name. As such, waste collection is increasingly less a matter of public health, or efficiency, and rather more a direct intervention in the flow of goods and materials through society (and see too Hawkins and Muecke, 2003).<sup>1</sup>

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<sup>1</sup> We thank an anonymous referee for prompting us to make this observation.

The starting point for the paper is to argue that if the UK is to have any hope of translating the principle of waste reduction into policy instruments which realise the immense challenges set by *Waste Strategy 2007* - requiring waste reductions of the order of 50% per person by 2020 - policy needs a far closer engagement with the household, the primary unit of consumption (Miller, 2001). Current UK policy instruments aimed at waste reduction, be they directed at prevention, re-use or recycling, position households as end-of-pipe delivery and/or collection points for receptacles, bins or containers, each dedicated to a particular type or types of materials: glass, paper, plastics, food waste, as well as non-recyclable materials. Further, policy success is measured in terms of both participation rates (e.g. the number of households with composting bins; the number of households participating in kerbside collection schemes) and the volume and/or weight of materials collected, or increasingly not in the case of wheelie bins. This is all very well, as far as it goes. The problem, however, is two-fold. First, seen thus households become subsumed within and circumscribed by the spatialities and temporalities of collection services that are themselves shaped by the imperatives of 'frontline' service delivery. As we show in the paper, 'frontline' services ignore that waste collection is a situated practice, enacted through many conduits outside of the immediate waste policy realm, and highly sensitive not just to the dynamics and constitution of households but to the dynamics of place, as this is lived out in streets and neighbourhoods. Second, a focus on the collection of materials obscures the means by which municipal waste is generated within and by the activities and practices of households. In such a view, households remain a closed entity within which daily routines and everyday practices of creating, storing and circulating unwanted materials are hidden. Such practices are deeply connected to issues of consumption, identity, value and of maintaining social relations (Gregson et al, 2007b); without their acknowledgement we risk missing the key processes through which waste is generated within and discarded by households and their relation to questions of social ordering (Gregson et al, 2007a). It is our view that, if the UK is to make significant further progress in realising its waste reduction targets, it is precisely these sorts of issues which policy instruments have to engage with. In short, to make the required difference, waste policy has to cross the threshold, to open up the black box that is the household and engage with household practices, rather than continue with furthering end-of-pipe approaches that impose rafts of new practices on households from the outside.

The paper has four main sections. First, we provide an overview of current UK strategy and policy aimed at waste reduction (Section 2). We show that policy has two sometimes conflicting aims. On the one hand, waste reduction is conceived in terms of diversion (2.1) and, on the other, in terms of prevention (2.2). Of the two, it is the former that has provided the primary rationality for new strategies and measures, largely through the diversion of materials from landfill to recycling. The success of this approach, albeit from a low base, is apparent: while in 1995 the recycling and composting rate stood at just 6%, by 2000/01 this had doubled to 12%, with 79% of municipal waste being sent to landfill; by 2005/6 the figure had doubled again, with 27% of municipal waste recycled or composted and 62% sent to landfill. However, it is our contention that there are limits to how much further household recycling can generate significant improvements in waste reduction. We discuss this in Section 3, examining why participation rates in recycling schemes remain stubbornly low in areas of social and economic deprivation and, correspondingly, why there are limits to furthering diversion through municipal waste recycling. We then identify in Section 4

where there is greater potential for diversion and hence reduction. Two possibilities are considered. The first, focusing on the ‘arts of transience’ or re-use, highlights where waste avoidance is already practised by households (4.1). The second, by contrast, emphasises the moments when household waste generation is maximised (4.2). Together, these practices of waste avoidance and moments of waste generation are suggestive as to where future policy instruments might best be targeted, particularly if they are to actively intervene in extending the lives of materials and things. Correspondingly, the paper concludes in Section 5 by making a number of suggestions as to how such potential might be realised.

## **2. Reduction and municipal waste policy: diversion and prevention**

Historically, reducing waste and reusing materials were part and parcel of household practices in the UK. During the second half of the twentieth century, however, these practices were largely abandoned, with households discarding more and more, primarily through the medium of the household bin and allied municipal waste collection services. This transformation in household practice is intimately connected to developments in waste management: in the second half of the twentieth century, policies for dealing with municipal waste in the UK were dominated by the logic of (apparent) disposal – the removal of materials from households through the conduits of the bin and the tip, and their relocation and eventual burial in landfill sites (Chappells and Shove, 1999; Davoudi, 2000). During the late 1980s this mode of governing waste was problematised, by the changing role of local authorities, the subsequent and related privatisation of waste services, and the increasing public and political salience of environmental concerns (Bulkeley et al., 2007). However, it was not until the 1990s that new modes of managing waste, based on a raft of EU Directives seeking to manage particular waste streams and disposal options, with a specific concern for the global and local environmental impacts of land-filling, began to emerge. At the heart of this new mode of governing lay the imperative to divert waste from landfill, following the principles of the ‘waste hierarchy’ articulated in the familiar refrain ‘reduce, reuse, recycle’ (Bulkeley et al., 2005; 2007). Rather than being ordered through the logic of disposal, the new logic of diversion requires discarded materials to be re-ordered, through practices that evaluate, sort and separate the materials discarded by households; that subject them to various forms of physical treatment, that insist on their relocation and revaluation, and that – above all – attempt to block connections to the waste stream and to landfill in particular.

Within this new ‘diversion’ mode of governing waste (Bulkeley et al., 2007), waste reduction has had a central, albeit ambiguous, role. Occupying the top of the waste hierarchy, significant lip service has been paid to the need to reduce waste. The 1994 National Strategy for Sustainable Development expressed the objective of moving waste management practices up the hierarchy, while the 1995 strategy, *Making Waste Work* (DoE 1995) was more explicit about the need to pursue the hierarchy ‘with the adoption of Best Practicable Environmental Option (BPEO) to determine specific applications’ (Porter, 1998: 199). More recently, *Waste Strategy 2000* is explicit that “reducing waste must be the prime objective” (DETR, 2000: 15) and that “tackling the growth in waste is an essential element of this strategy” (DETR, 2000: 23). *Waste Strategy 2007* continues to emphasise the apex of the waste hierarchy and its connections to other levels, stating that ‘our aim must be to reduce waste by making products with fewer natural resources. We must break the link between economic

growth and waste growth. Most products should be re-used or their materials recycled' (DEFRA, 2007: 9). No doubt, then, that waste reduction is central to current government waste strategy. The link to policy however, is messier. Indeed, we can identify two primary means to achieving waste reduction: diversion and prevention. For some, reduction is purely a matter of diversion (from landfill). Policy here is about the development of technologies and infrastructure that work simultaneously to block routes to landfill and to capture discarded materials for alternative purposes. For others, reduction is about more than diversion; it is an active form of waste prevention. Here reduction is to be achieved by targeting key materials within the waste stream (e.g. plastic bags, packaging, nappies) and attempting to devise alternative practices (and materials) in their place. In that this requires fundamental changes in how certain activities are done, such policies represent a radically different approach to the goal of waste reduction. However, it has been the former approach which has received the most policy attention.

### ***2.1 Waste reduction as diversion from landfill***

Although the beginnings of shifts in municipal waste policy were visible during the 1990s, with some local exceptions (Gray, 1997; Petts, 2001), the new institutional arrangements, discourses and practices of waste management had not challenged the core goal of waste policy as being centred on the cost-effective and efficient disposal of waste. Despite the introduction of the 1996 Landfill Tax, land-filling remained at persistently high levels and successive government targets failed to have any impact on levels of recycling (Bulkeley et al., 2007). The 1999 EU Landfill Directive marked a turning point. Rather than conceptualising waste as something to be rid of in as (economically) efficient a way as possible, the principle underpinning this Directive is the need to manage the risks of waste, primarily by diverting biodegradable waste from landfill in accordance with the waste hierarchy. Consequently, the UK is charged with reducing the volume of biodegradable municipal waste sent to landfill to 75% of the 1995 level by 2010; 50% by 2013; and 35% by 2020.

This Directive provided the basis for *Waste Strategy 2000* and the opportunity for the development of new governmental technologies for managing waste (Bulkeley et al., 2007). These included, first, new targets for recycling and composting waste. Nationally, the goal was to recycle or compost at least 25% of household waste by 2005, at least 30% by 2010, and at least 33% by 2015. In 2001, these targets were translated into statutory targets for local authorities in the form of Performance Standards under the existing Best Value framework. Second, new legislation capping the amount of biodegradable waste sent to landfill and establishing the *Landfill Allowance Trading Scheme* was introduced. The 2004 Waste and Emissions Trading Act entered the statute in April 2005, imposing quotas on the amount of biodegradable municipal waste any one local authority can send to landfill while also allowing local authorities to bank, borrow and trade permits for municipal waste disposal. Under this scheme, those local authorities who do not fill their assigned quota have permits to sell while those who go over their allowance need to buy quotas, or incur a financial penalty (currently £150 per tonne: <http://www.defra.gov.uk>; see also Weaver, 2005).

Together with the escalation of the landfill tax, these measures have encouraged the diversion of municipal waste from its traditional site of disposal – the landfill – to other conduits in which material recovery – through recycling and composting – can

take place. Materials diversion has also been supported through dedicated funding streams. Indeed, the Waste Minimisation and Recycling Fund awarded £2.537M to 333 projects over the period 2002-2006 (<http://www.defra.gov.uk>). The vast majority of these projects involved the creation of new infrastructures – collections and containers – for the capture of recyclable and compostable material at the kerbside. The investment placed in a range of plastic containers, boxes and bags, and the systems through which they are ordered and collected, indicates the importance of establishing an infrastructure of diversion alongside that of disposal, as well as the necessity of disrupting the primary icon of disposal, the bin (Chappells and Shove, 1999). Additional schemes include awareness raising, the development of materials reclamation facilities and improvements to household waste reclamation sites. However, of the projects funded in the second round of the scheme, only 11 (from a total of 152) involved ‘minimisation’, despite the title of the scheme (DEFRA ND; <http://www.defra.gov.uk>). Furthermore, guidance on the Waste Performance and Efficiency grant, introduced in 2006 to provide guaranteed funds for local authorities to target at municipal waste policy, included only two suggestions for investment in minimisation schemes out of a list of twenty possible options for local authorities (DEFRA 2005a, pp2-3).

Within the diversion mode of governing waste, then, reduction is primarily being tackled through technologies which attempt to restrict the flow of municipal matter to landfill sites, by enabling capture and diversion. This approach is further reinforced by the inclusion within *Waste Strategy 2007* of a raft of new targets:

“to reduce the amount of waste not re-used, recycled or composted from over 22.2 million tonnes in 2000 by 29% to 15.8 million tonnes in 2010 with an aspiration to reduce it to 12.2 million tonnes in 2020 – a reduction of 45%. This is equivalent to a fall of 50% per person (from 450kg per person in 2000 to 225kg in 2020)” (DEFRA, 2007: 11).

Here waste reduction is to be achieved by reducing the amount and volume of stuff left behind; critically it is to be enabled by opening up conduits for recycling, composting and re-use so that matter can be captured and diverted, rather than left for wasting. There is, however, an alternative mode of governing within (municipal) waste policy where waste reduction has been approached in a different manner, through waste prevention.

## ***2.2. Waste reduction as waste prevention***

Despite the promise of the waste hierarchy, policy initiatives which have specifically sought to address waste reduction via waste prevention are few and far between. The Waste Implementation Programme, established by DEFRA to address the concerns of the 2002 Cabinet Office Strategy Unit *Waste Not Want Not* report, emphasised minimisation as one of nine core themes, but to date action has been confined to three initiatives run by the Waste and Resources Action Programme (WRAP) – retail, composting and real nappies. The Retailer Initiative led to twenty-five major retailers signing the Courtauld Commitment, thereby committing to reduce food and packaging waste. Home composting promotion has combined traditional advertising campaigns aimed at the general public and locally distributed infrastructures, comprising bins, kitchen caddies and biodegradable bags alongside advice leaflets, whilst ‘real’ (or

cloth) nappy promotion also worked predominantly through awareness-raising, utilising information leaflets, co-ordinating information about subsidy schemes, an advice hotline and ‘real nappy week’ (Askins and Bulkely, 2005a, 2005b).

Together, these WRAP initiatives establish that policy aimed at achieving waste reduction via prevention is far more profound in its effects than that aimed at diversion. Thus, the two initiatives aimed directly at materials (packaging/plastic bags and disposable/cloth nappies) are predicated upon fundamental alterations in practice, for householders, manufacturers and retailers. Substituting cloth for disposable nappies goes way beyond changing a baby, impinging not only on household ‘disposal’ practices but also on household laundry practices, shopping frequency and storage space. Similarly, to shop without the convenience of ready-to-hand plastic bags at the checkout requires that other bags be carried with one (or purchased in their stead). In turn, this impinges on when acts of shopping might potentially occur, insisting that bags be carried where they may not be wanted, to work for example. In short, these ways of preventing waste pose trouble for convenience: they require us to shop more often (perhaps), to plan how to carry and/or transport what we buy, and to do more work with materials once we have bought and consumed them. Home composting is potentially even more profound in the changes wrought, requiring not just that households divert their own food and garden waste and develop knowledge about how to work with and manage the process of organic decomposition, but that they use these accumulating, living materials in their cultivation practices. While such practices are reminiscent of everyday practices of waste management conducted in UK households up until the mid-twentieth century, a critical difference is that contemporary households continue to be fully integrated into a parallel infrastructure of waste disposal, in which both garden and food waste are accommodated. As such, whilst home composting offers an alternative means to ‘disposal’ of such materials, it remains just that, an alternative.

Achieving waste reduction through waste prevention has been low on the list of priorities for central and local government, certainly when compared with policies aimed at achieving diversion. Indeed, where it has appeared, primarily through the three WRAP programmes outlined above, household enrolment has been through opt-in, through increasing awareness and some (minimal) financial incentives - a far cry from the roll-out of infrastructures aimed at capturing and diverting discarded materials for recycling. *Waste Strategy 2007* however, introduces targets in municipal waste reduction and diversion that go way beyond what can be achieved via the mere provision of collection infrastructure, requiring – seemingly – step changes in household waste behaviours. Indeed, behavioural change underpins the mantra of the waste hierarchy and its accompanying invocations upon us all to reduce, re-use and recycle, and more so. Invocations aside, the understanding of waste behaviour that prevails within waste policy circles, remains firmly tied to knowledge (awareness raising) and the hip-pocket nerve (financial incentives), as the primary barriers/drivers to action. This approach, based in turn on an ‘information deficit model’ in which publics are seen to lack the information required to make rational (i.e. in line with government policy) decisions (Burgess et al. 1988; Owens 2000; Owens and Driffill 2006), is frequently connected up to one in which individuals are framed as ‘citizen consumers’, requiring the right financial signals to motivate appropriate behavioural change (Slocum 2004). That behaviours are more complex, however, is hinted at in the significant amount of research already directed at understanding

household recycling behaviour (Barr et al., 2003; Barr et al. 2001; Darby and Obara, 2004; McDonald and Oates, 2003; Price, 2001; Tonglet et al., 2004). Based on conceptual approaches from social psychology which privilege factors such as attitudes, values, norms, control, and efficacy, with additional variables, such as situational context, included, this work has, on the whole, used large scale surveys to understand the factors which shape intentions and (reported) recycling behaviours (Barr et al. 2001; Tonglet et al. 2004). Recognising that there is potentially more than information and hard cash at stake here, one of the most striking things to emerge from this literature is the importance of the social, physical and material. Thus, Barr et al. (2001, 2003) demonstrate how physical contexts, such as access to recycling infrastructures and room for the storage and separation of recyclates, as well as social contexts, including shared norms, available time, service provision and local waste knowledges, are critical in shaping recycling behaviour. Other studies point similarly to the importance of these contextual and material factors in shaping everyday waste behaviours, from the provision of adequate local infrastructures for the collection of Waste Electrical and Electronic Equipment (Darby and Obara 2005), not being deterred by the 'issues of physically recycling (e.g. time, space and inconvenience)' (Tonglet et al. 2004: 27), to the colour and size of collection bins (McDonald et al. 2003).

While these remarks relate to conventional notions of attitudes and behaviour, their acknowledgement of the design of containers and bins, of how these fit (or not) within the built fabric of the domestic, and of their location in everyday activities alludes to the potential to conceptualise household waste generation through notions of practice that in turn connect up to current theorisations of consumption and consumer culture. Developed most strongly in relation to consumption research (Hand and Shove, 2007; Gregson, 2007; Shove and Panzar, 2005; Shove and Southerton, 2001; Warde, 2005), the key difference between practice-oriented and attitude-driven understandings of household responses lies in their approaches to behaviour. Whereas for the latter, behaviour is merely what is done (or reported) as a result of a-priori attitudes, practice-based approaches conceptualise behaviour (as done and said) through routine, that is, as both co-ordinated and performative. Furthermore, most practice-based accounts would emphasise the importance of the non-human – in the form of objects and their handling – within and to any routinised activity. The objects in the consumption literature comprise things like cars, walking poles, showers and freezers, but such arguments can equally be applied to the infrastructures of waste collection and diversion. Indeed, we would go so far as to argue that the introduction and roll-out of infrastructures of diversion can be productively conceptualised as an instance of a policy-driven attempt to instigate change in household (waste) practices. However, to work – certainly in the absence of financial drivers – these bins and containers must be incorporated within household practices, that is, households must invest in and coordinate their activities such that they not only engage with these new objects in the appropriate ways, but routinely manage discarded materials through these conduits in a compliant manner. In the following section we examine why investments in these new household waste practices is socially and geographically variable, before highlighting the implications of these key differences for furthering new modes of governing waste based on diversion.

### **3. The limits to diversion through household recycling**

There are two immediate points to be made about how the recent transformation in UK household waste management affects households. First, policy has had clear material effects on households, for whom the roll-out of the new diversion mode of governing has meant having to accommodate new physical entities on or within a particular property. In some inner city areas of the UK, this has meant squeezing three wheelie bins into the yard or alley way of a small Victorian terraced house. In other areas it has meant finding room for three (or more) large plastic containers. For those with garages, this may be relatively easy. But for those living in a one-bedroom council bungalow with a small kitchen, an inner city apartment, a 1960s-build tower block or a C21st town-house – to take just a few instances – the accommodation can be more difficult. This is not just an issue of physical space and its availability (or not), but a matter of design and interior aesthetics, particularly for those for whom to comply with recycling means no option but to incorporate these new domestic objects within home interiors. Secondly, managing these new physical entities appropriately has led to the creation and re-scheduling of a whole range of domestic tasks (Shove 2003), requiring significant changes in household practices. In effect, ‘putting out the garbage has become complicated. No longer the lugging of the bin to the kerb ... now it’s a complex assemblage of actions’ (Hawkins, 2001: 12). We can identify three primary changes, as these effect households: the increasingly complex and heterogeneous characterisation of formerly homogenised surplus materials and their conduits of collection; in the work to be done with and to certain of these surplus materials, principally that of evaluation and cleaning, but also sorting; and in the on-property, often in-house, visible storage of surplus materials which previously would have been immediately displaced to the wheelie bin, rendered invisible, and thence carried away with the standard weekly refuse collection.

Taken together, these three points establish that the success of policy instruments to a degree “has depended on changes in micro-levels of everyday life, on the ways we’ve willingly acted on ourselves” (Hawkins, 2001: 12). However, waste policy interventions have not just reworked the relations between rubbish and the self (Hawkins, 2001; Hetherington, 2004). Rather, they have worked to heighten householder identification of local authorities with the infrastructures of waste management.<sup>2</sup> In effect, through the medium of these new objects and their associated within-home practices, local authorities have permeated the walls of the dwelling structure; in the process the relationship between local authorities, households and waste (collection) has been transformed. Formerly a simple transaction enacted at the property’s edge, involving the householder’s movement of bins to collection points on pavements and the unquestioning collection and removal of their contents (for disposal) by local authorities (or their agents), the new local authority-household-waste (collection) relationship is more complex, deepening the waste-related activities of both parties and extending their spatialities. Thus, for households that opt to participate in recycling schemes, the practices of waste management require more of their time and labour, whilst for local authorities (or their agents), materials collection from dwelling structures is no longer just about efficient removal and transport to proximate waste depots but characterised increasingly by kerbside sorting, heightened

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<sup>2</sup> We note that those local authorities who are Waste Collection Authorities do not collect waste directly from households but rather contract-out this service to private and community sector organisations. However, and critically, in the main the collection of waste continues to be associated in the public’s mind with the local authority; it is not understood as a privatised or voluntary sector activity, even when it is organised thus. Quite why this is the case is beyond the scope of this paper.

labour costs, and various forms of additional pre-treatment, to enable further materials separation. Needless to say, both this work and the associated enhanced costs for local authorities remain largely hidden to the majority of households. Rather more visible, however, is that their efforts at recycling are mediated by the local authority. As such, local authorities are positioned as key intermediaries in the increasingly scalar politics of waste.

The contours of local authorities' new mediatory role are beginning to be documented: already, the variable success of specific local authority recycling schemes is well evidenced (any refs to this?). Furthermore, as comparison across several studies shows, whilst participation rates in household recycling schemes are generally high in 'middle class' neighbourhoods, even for the most pro-active local authorities, uptake remains stubbornly low in neighbourhoods characterised by relatively high levels of social and economic deprivation, typically in the UK those areas characterised by council estates and council housing (Barr et al., 2001; 2003). Given the social psychology perspectives that inform these literatures, differential rates of participation are explained in terms of attitudinal variation, lack of knowledge and/or information and/or through reference to the catch-all term, 'the throwaway society'. Although such accounts may occasionally touch on issues to do with the mess and smell of storing certain materials in households, they seldom go further, failing for example to connect such issues to the importance of cleanliness and the display of order within home interiors (Clarke, 2001; Madigan and Munro, 1996; Skeggs, 1997). Neither would they acknowledge how recycling schemes are appropriated within these types of neighbourhood. How empty wine and beer bottles in recycling containers, for example, might be read, as negative markers and moral judgements regarding how much certain people are inferred to drink by way of alcohol in a week (O'Brien, 1999). Nor do they recognise how recycling boxes kept outside people's homes might be re-appropriated by local 'youth' culture – for example, turned-over, strewn as litter, used as implements to cut car tyres; or simply smashed on the pavement or playground where children play. Indeed, the ethnographic and participant observation work we have conducted revealed that households disliked 'box' schemes for these very reasons – the physically demanding activity of moving full boxes, lack of lids leading to fly-away paper and creating 'untidy' neighbourhoods, and dogs/cats/neighbourhood youth emptying materials over the streets (Askins and Bulkeley 2005c; Gregson, 2007). All, and more, are important in understanding why recycling participation rates remain low in these neighbourhoods in the UK: indeed, they show that recycling is highly sensitive to the dynamics of living in particular places. In effect, recycling here is all too easily undermined by local geographies in which the materials of recycling are refracted through more potent moral judgements of (locally known) others, whilst the ease with which such materials transcend social categories to become 'litter' works to cast them as classic matter out of place – a manoeuvre which re-constitutes recycling as generative of litter, as constitutive of social disorder and as a practice that is not engaged with, for exactly those reasons.

What also needs recognising, however, is that the new mode of governing household waste sees local authorities actually permeating the dwelling structure. This is of considerable potential importance in understanding low levels of recycling uptake in the afore-mentioned areas. As a few key studies conducted on UK council estates have shown, re-appropriating the state on a council estate is fundamental to

understanding patterns of consumption and practices of everyday life in these neighbourhoods (Miller, 1988; Gregson, 2007). As this research has shown, what matters for households in these types of neighbourhoods, consistently, is to keep ‘the council’ out of their homes and everyday lives as much as possible – hence the symbolic potency of the kitchen makeover, interior redecoration, new windows, doors and satellite dishes for those who have bought their properties. In contrast, the objects and practices associated with the new infrastructure of household waste management, which are known to require households to do even more work, are not embraced, precisely because, in this setting, such practices are understood as enacted *for* the council. Furthermore, to save such materials up (through storage) for the council (the site of alienation) is counter-intuitive and doubly so given the ways in which such discard works to threaten prevailing home interiors.

The above points have serious ramifications for furthering waste reduction via diversion. In terms of enhancing conceptualisations of the new technologies of household waste management, they flag that these are as much social and situated as they are individualised. That is, the new infrastructure of household waste management is not just constitutive of a reflexive self, but shaped by the social relations of living in particular types of places in particular housing tenure relations. The new mode of governing household waste recasts the long established social relations of waste management that went along with technologies of disposal: that this runs into difficulty in certain areas is, in our view, precisely because it fails to understand the place of waste materials in these neighbourhoods and because it fails to see that recycling materials, infrastructures and practices actively disrupt the dynamics of social order within these places.. We would argue further, that appreciating how materials and the social relations of waste collection figure in social ordering in different places is vital if more effective means to achieving diversion within such areas are to be developed. It is our clear view, however, that diversion will not be achieved in these ‘hard-to-reach’ areas through participation in perceived-to-be-local authority-run kerbside recycling schemes – for the reasons outlined above. In the following section therefore we pursue other means for thinking about how waste reduction through diversion might be furthered. Drawing on a range of recent consumption research, including our own, we flag the clear potential for policy development further up the waste hierarchy, particularly with respect to re-use (4.1). In Section 4.2 we urge the need for policy to acknowledge and engage with the lumpiness of waste generation within households, and to devise instruments accordingly. We discuss each of these issues in turn – noting that both are socially inclusive, rather than divisive, in their potential effects.

#### **4 Reduction through other means: or the hidden potential for waste reduction within the household**

##### **4.1 Engaging the arts of transience: achieving diversion through the development of re-use**

One of the clearest messages from consumption research conducted over the past ten or so years is that waste reduction activities already occur as part of everyday practice in the majority of UK households. The activities of repair and maintenance are one such instance (Dant, 2005; Graham and Thrift, 2007). Another is that surplus goods and materials routinely circulate between households (Clarke 2000; Gregson 2007; Gregson and Beale, 2004). Moreover, surplus goods (children’s things, adult’s

clothing and books) are routinely taken to charity shops, or set aside for charity collection doorstep drops, whilst car boot sales, eBay, Freecycle, local post offices and workplaces are all standard conduits through which people attempt to move along surplus goods (Gregson and Crewe, 2003; Gregson et al 2007). Re-use, then, be this marked by monetary exchange or not, is an integral part of how most UK households think about consumption's surplus.

The potential for the surplus to be re-used, allied to its placement in conditions that are either seen or imagined to realise the re-use potential in things, is integrally connected to acts of acquisition. Thus, to take just three examples from one of our research projects, the purchase of a new HDD or plasma TV works to push an CRT TV to a children's room; a computer upgrade results in an 'old' but still perfectly serviceable computer system moving to a parent's home; and a kitchen makeover in one home results in the movement of a cooker from a mother's house to her daughter's house, whilst the surplus kitchen units go to the home of another friend. At one level, then, it is undoubtedly the case that re-use enables first-cycle consumption. 'Mass production of objects and their consumption depends on widespread acceptance of, even pleasure in, exchangeability: replacing the old, the broken, the out of fashion with the new' (Hawkins, 2001: 9). However, to imagine and/or know the 'old' is re-valued and continuing in use somewhere, rather than slowly decaying in a landfill site somewhere else, works to allay the anxieties, and frequent guilt, of acquisition. So, re-use fuels consumption; it is a means of expending the surplus and facilitating further acts of purchase. At the same time, to see the potential for re-use in something is a positive act. It is, as Hawkins (2001: 19) argues, to be attentive to 'the arts of transience ... ways of managing loss that involve not destruction, but restoration, care, mindfulness and generosity'. It is this which marks re-use out as a highly distinctive waste reduction practice. Nonetheless, for re-use to occur requires certain conditions.

To go back to the three instances of re-use cited above. In all three, we see how re-use is simultaneously striated by and enacted through social ties and connections. The circulation of surplus goods amongst socially related and connected people and households is a way of narrating these relationships and connections, with the goods' circulation working to materialise, in a physical form, the social ties (Gregson et al, 2007a). Moreover, the direction of passage of things frequently works to sustain the dynamics of certain social relationships across related and/or connected households, for example, as here, from parents to children, from an adult child to an older parent, and from a mother to a daughter. Further, longitudinal qualitative research shows how the same pattern of movement of surplus goods is repeatedly enacted by households (Gregson et al 2007a). These, then, are not just one-off ways of finding a re-use for one-off things, but a means to using re-use as a practice, that works to actualise social ties, through the social lives of surplus things. For those households with less dense social ties and/or with geographically highly dispersed social networks, the capacity to realise the potential for re-use in things through social networks is undeniably harder. Further, it is important to acknowledge that in certain social situations actively preventing re-use matters. Indeed, in circumstances where people do not want a known group of people to get hold of their (unwanted) things, the intentional wasting of things with the potential to be re-used is fairly prevalent (Gregson, 2007). Given this, we can see clearly that re-use does not work where disapproval, disrespect or worse figure. In these circumstances the termination of the social lives of things should not surprise us. Nonetheless, the potential for more anonymous, stranger-

stranger forms of releasing the surplus remains, through the vehicle of various forms of second-hand exchange (charity shops, eBay, community-based sales of various sorts, Freecycle, and simply leaving on the street) – although we should note that these can be refused (left unsold or refused as inappropriate, of insufficient quality and so on), and that rejection often has serious consequences for the future social lives of things, connecting up all too easily with their wasting (Gregson 2007).

What lessons are there in all this for furthering waste reduction policies? We can identify three. First, and most positively, re-use is a practice that is actively going-on in the majority of UK households, be this when second-hand goods are received, acquired and put to use, or in the widespread practice of identifying the potential for re-use in things and locating them elsewhere – that is seeing and working with the ‘art of transience’. This can only be positive, in that it shows continued levels of commitment to saving the surplus (from wasting). Developing waste reduction policies around the art of transience therefore is not to attempt to impose on households a different practice (as with recycling); rather, it is to intensify practices that already go on in a whole host of socially diverse households and neighbourhoods. Since altering the taken for granted is always far harder than working within existing norms, we would venture that the development of carefully crafted instruments of re-use would quickly reap dividends by way of waste reduction. We make some suggestions in this respect in our final section. Secondly, there is an unquantifiable but possibly significant amount of material currently entering the waste stream for social reasons. In some cases, what appears to be throwing away is actually indicative of the absence of the social capital to realise re-use – it is about the absence of ties of social connection. In other circumstances, it is not re-use that is the problem or even the absence of key socialities so much as just who is seen to potentially benefit from the arts of transience. Again, devising a means of working productively with such problems should not be insuperable, and we offer some suggestions in this respect below. Thirdly, however, re-use is not connected to any sense of reducing contemporary levels of consumption. If anything, it is the reverse, as households use the practice of re-use apparently to acquire more. But, whilst developing policy instruments targeted at re-use will not reduce contemporary levels of consumption, they may nonetheless suggest that to buy new is not necessarily always the answer.

#### **4.2 Moments of maximisation: engaging with ‘lumpiness’**

Alongside the mundane, there are more exceptional moments of everyday life that have radical implications for household waste infrastructures. These moments are ones where household waste generation is maximised; they work to create a ‘lumpiness’ in the flow of discarded materials out of the house. Lumpiness can be characterised as follows. If we think of waste collection infrastructures as assemblages for containing discarded materials (recyclable or not), then certain consumer practices are undeniably difficult to keep within their boundaries. Christmas, children’s birthday parties, and other home-based celebrations are all examples of events that routinely fail to fit within the parameters of the standard weekly or fortnightly collection. Rather they spill-over, requiring implicit negotiations on the part of householders with waste collection agents - think of additional bags placed on top of or beside wheelie bins, or the half-open/half-shut wheelie bin lid propped up on a pile of plastic bags. Alternatively, dealing with the detritus of these events requires the utilisation of additional waste infrastructures, notably household waste recycling centres (‘the tip’) and ‘bring centres’, or even the roadside or verge.

These events, however, pale into insignificance alongside three others as generators of household waste. Longitudinal qualitative research highlights the following as particularly significant: moving in and out of a dwelling structure (Gregson, 2007); house clearance, usually following death; and major periods of home refurbishment and improvement (e.g. the installation of new kitchens and bathrooms, rebuilds such as extensions and loft conversions, and major acts of re-decoration) (Hand and Shove, 2007; Hand et al, 2007; Shove et al 2007). Each of these activities results in the movement of a serious amount of consumer goods and materials into the category of the surplus. However, by virtue of its sheer bulk, this surplus very quickly becomes classified as excess, and to be 'rid of' in as expedient a manner as possible. In such circumstances, the 'arts of transience' are abandoned and the need to dispose becomes pressing. Excess becomes, in short, 'too much stuff' to be dealt with through the types of channels of re-use discussed in Section 4.1. Indeed, rather than being perceived as singular and/or related surplus items, it is precisely the lumpen, homogenised volume and amount of goods and materials that is the hallmark here, a quantity that many find a weighty burden, precisely because of the descent to disorder that excess represents.

That the surplus moves to the category of the excess in these circumstances is also indicative of a form of time-space compression, enacted in relation to homes, their inhabitants and home possessions. This form of time-space compression is particularly acute for those moving out of a dwelling structure (Gregson et al 2007b). Take the instance of moving out as a home owner. As the date of exchange of contracts draws closer, so the need to deal with belongings becomes more and more pressing, whilst possessions are increasingly evaluated for their 'fit' within the new home. Notwithstanding the best of intentions, householders – including those who might otherwise pride themselves on their green credentials – find themselves getting rid of large quantities of things, using initially conduits that deal with small singular items (e.g. bulky furniture collection services, charity shops and eBay) and then those that shift huge quantities of undifferentiated 'stuff' (e.g. skips, bins and 'the tip'). They do so simply to move out with a modicum of order, tidily and on time. Elsewhere, however, in the streets of university towns and cities, moving on at the end of an academic year is frequently characterised by leaving behind, as the detritus of having lived is left abandoned in yards and on pavements, to be absorbed by waste collection services. The general opprobrium with which this is greeted by other residents in these areas is, of course, indicative of the othering of students through their waste practices.<sup>3</sup> A rather different instance of moving out is that of house clearance. As anyone who has dealt with the death of a parent will know, loss is enacted through home possessions. Along with the memories and the objects that work to remember a life are infinitely more possessions deemed surplus and even just 'junk'. Sorting through this stuff – often at a geographical distance – and moving it on is both practically difficult and emotionally draining. Indeed, for many, once the objects for memory-work have been identified and reclaimed, 'getting rid' as quickly and expediently as possible is all that matters. Compounded by a frequent lack of local knowledge as to where to take unwanted stuff, and by the time-space imperatives of preparing a dwelling structure for sale, it is once again the conduits of skips, bins and the tip that are resorted to in such circumstances.

The above instances of lumpiness are key generators of non-organic household waste, not just because of time-space compression but because such lumpiness is difficult for local authority collection services to deal with. Currently, local authority collection services assume a steady state in materials flow from households, with collections, including those of bulky waste, organised on rotas structured by days and by area, as well as constrained spatially by the configurations and confines of bins and collection vehicles. A legacy of the period of their inception in the UK, when people did not move house frequently, when they had nothing like the same quantity of consumer goods, when what they did have was made to last, when home ownership figures were much lower, and when there was less of an imperative to keep improving the interiors of dwelling structures through the acquisition of consumer goods, it is perhaps not surprising that such moments fail to be accommodated by the standard local authority collection services. And, whilst the bulky waste service is an additional service provided by a majority of local authorities, the economics of collecting such things means that such services often entail a charge, which is resisted by householders convinced that the collection of waste should be part of the standard activity of a local authority. Furthermore, even where alternative collection services are available (for example, those run by voluntary-sector organisations to collect and re-use bulky items), they do not necessarily deal well with ‘excess’ materials, with donors becoming irate when furniture is rejected by collection staff and declaring they would subsequently take items to ‘the tip’ rather than call these bulky waste services ever again (Askins and Bulkeley 2005d).<sup>4</sup>

Again, there are lessons for waste reduction policies. Two points are critical here: lumpiness and the effects of time-space compression. Together, they work to propel large amounts of material towards the waste stream. A corollary, therefore, is that both conditions need to be recognised, if further diversion is to be achieved. Specifically, we would argue that collection facilities be hooked-up with sorting facilities that work to reclaim excess to the category of the surplus. We offer some suggestions as to how this might be achieved in our concluding section

## 5: Conclusion

Achieving municipal waste reduction is fundamentally a matter of the spatial and temporal diversion and displacement of materials. It requires that particular well-worn, routinised trajectories (notably in the UK those that connect discard to landfill) be disrupted and made harder to realise, through the development of alternatives that either return material for use in the manufacturing process or work to extend the social lives of things. As we have seen, to date diversion has been achieved primarily through the development of technologies and infrastructure for materials capture. It has therefore focused on reducing waste by capturing recyclables. There are,

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<sup>4</sup> Negative comments regarding students and acts of wasting were made repeatedly during the Disposal, devaluation and consumerism project, by householders living in one of our field work areas (an area characterised by high numbers of student lets), and by academics living in other university towns, often in response to various presentations of this work.

<sup>4</sup> Rejection is a relatively commonplace occurrence: furniture must be in respectable condition (where ‘respectable’ is at the discretion of collection service workers/volunteers), and relevant items (beds, sofas etc.) require appropriate labels as guarantees of safety standards. A great deal of furniture – particularly that resulting from house clearance – is rejected for these reasons, passing on to the waste stream for the very same reasons.

nonetheless, real limits here, as well as issues of social divisiveness (Section 3). In response, impetus is being placed behind the potential for market-based approaches to encourage recycling and to penalise the continued discarding of domestic waste. However, we would argue that current charging systems (e.g. on builders/trades persons at HWRCs) are counter-productive, in that rather than reducing waste they merely displace it elsewhere, in so doing diversifying sites of abandonment, creating more, and unpredictable, work for local authorities' collection services and creating an aesthetic in which dumped waste is a material presence not an absent presence. Charging systems do nothing to alter understandings of discard as waste, for here material remains firmly in the category of the excess. In contrast, keeping discard in the category of the surplus renders it open to acts of transience. There is little doubt that potential for extending the social lives of things remains under-developed in the UK, whilst the moments discussed in Section 4.2 exceed current capacities for materials diversion. In this context, there is a need to recognise that a reduction in household waste is not going to be achieved by attempting to put consumption into reverse gear. Rather, the challenge is to design and develop services that divert materials from trajectories that still connect easily to the waste stream. In this final section of the paper, therefore we make two sets of suggestions regarding how new policy instruments aimed at diversion might be developed. .

Our first set of suggestions emerge from the argument (4.2) that rather than assuming a steady state in materials flow from households, there is a need to recognise and work with the temporal and spatial dynamics of household waste generation. Household waste services need to be more flexible and responsive to pinch points such as moving and house clearance. Designing a service which acknowledges home moves to be commonplace ought to be possible. This would entail working with a range of partners who are currently outside of mainstream waste policy, including, for example, estate agents, universities, auctioneers and house clearance specialists, as well as co-ordinating with voluntary-sector organisations collecting furniture and other household goods for re-use. An example might be the approach piloted by the Mayor of London in university halls of residence across the city (GLA N.D.). In this scheme, through the co-ordination of re-use schemes and their advertisement to students six weeks before the 'move out' date, 6 tonnes of waste were diverted from landfill (an equivalent of 20kg per student) and either sold at low cost to incoming students or donated to charities. Such approaches would work to recover what is currently classified by households as excess (and therefore 'waste'), reclaiming it to the category of the surplus, open to the 'arts of transience'. Moreover, in that not all such donations would necessarily find new homes and new owners, it is worth noting that such schemes can work simultaneously as further vehicles for the collection of recyclables.

Our second set of suggestions starts from the premise that, rather than imposing practices on households, policy interventions can take their cues from what is already going-on in diverse households and neighbourhoods across the country. Section 4.1 disclosed that the arts of transience are alive and well in the UK, even if households vary in their capacity to mobilise them. Indeed, even when they are so able, the social networks and relations that enable the circulation of goods are often relatively shallow, precisely because of changes in family and social life (smaller families, greater geographical dispersion, enhanced social mobility, and so on). Consequently, and in addition to friends and family, most households draw on a range of third sector

and commercial agencies and conduits (charity shops, eBay, nearly new sales, school fayres ...) to practice these forms of generosity. Notwithstanding the plethora of existing alternatives, the potential for local authority, private sector and third sector involvement in and coordination of the arts of transience is considerable. In some areas of waste practice, local authorities are already intervening alongside other partners to reshape the consumption-waste nexus, for example through community composting and cloth nappy schemes where the emphasis is placed on one-to-one networking and learning through doing (Askins and Bulkeley 2005a, 2005b). What is needed is a similar engagement with shaping the conditions for re-use. One possible means of doing this is through the involvement of local authorities in the development of neighbourhood/community based 'not for profit' re-use/bring/collection facilities, of the type that are relatively commonplace in certain parts of Northern Europe, notably Scandinavia and Germany. Another might be based on a network of regular 'swap shops', as exemplified by those held by Oxfordshire Community Action Groups which in 2007 involved 17 events and led to the relocation of 5 tonnes of material in new homes.<sup>5</sup>

Such interventions mean that rather than being a 'frontline' service targeted at individual dwelling units, waste collection services would be re-configured as infrastructures designed for neighbourhoods, that is to enable the release of goods proximate to their site of current consumption. In this respect they would be not only a convenient means to re-realising value but cost-effective – certainly when compared to couriering stuff from one end of the country to the other, as is not unheard of in relation to eBay, or even compared to journeying to 'the tip'. More profoundly, the development of such interventions would position local authorities as facilitators of the arts of transience, as helping people to do more of what they already do, more easily. A counterpoint to the enhanced and different demands placed on populations by local authority recycling schemes, such approaches could easily be identified with notions of care and community, in short they would work to materialise 'a caring council'. The potential for such developments therefore to alter public understanding of local governance, and positively, is considerable. However, any such change would undoubtedly be longer term. In the shorter term, the primary benefit would be to keep materials and things circulating, through the development of conduits that simultaneously enable revaluation and work to divert materials from the waste stream.

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<sup>5</sup> See: <http://www.cagoxfordshire.org.uk/2007countywide.htm> (accessed September 2007).



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