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Consumers, Waste and the 'Throwaway Society' Thesis: Some Observations on the Evidence

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Abstract The 'throwaway society' thesis – invariably attributed to Vance Packard (1967) – is widespread in social commentary on post-war social change.It represents, simultaneously, a sociological analysis and a moral critique of recent social development. In this article I take a brief look at the core of the 'throwaway society' thesis and make some comment on its modern origins before presenting and discussing data on household waste in Britain across the twentieth century.I conclude that there is nothing peculiarly post-war about dumping huge quantities of unwanted stuff and then lambasting the waste that it represents.When the historical evidence on household waste disposal is investigated, together with the historical social commentary on household wastefulness, it appears that the 'throwaway society' is a great deal older than Packard's analysis has been taken to suggest.

Keywords Consumerism, Waste, Crisis, Throwaway Society, History

1. Introduction

It is commonly asserted, in developed countries, at least, that there is a crisis of waste and a failure of waste management policy.Moreover, the crisis is said to arise from the fact that contemporary consumer societies have developed a 'disposable' mentality in a 'throwaway' culture, and now discard items that, once, would have been reused, recycled or held in stewardship by our ancestral bricoleurs.These claims are so commonplace, so much a part of the commonsense of public and private life, that few have examined whether or not they are true and, with some exceptions (see Rathje& Murphy, 1991, for a rare discussion)[14], little evidence has been provided to establish their veracity[12].In fact, these claims, for the United Kingdom at least, have less evidential foundation than might be expected.They have the effect of misrepresenting what is happening in relation to waste in the contemporary world and they also gloss the past.In the simplest terms, it is not proven that contemporary consumers waste more than their historically miserly counterparts.Nor is it true that, in the past, our grandparents and their grandparents 'stewarded' objects and reused, recovered or recycled significantly more than happens today.Instead, the available evidence appears to show that contemporary consumers waste little more than their historical counterparts.This fact goes against the grain of both public and expert opinion but there are two sets of questions that can help to clarify why the consumerism equals waste crisis argument stands in need of a critical assessment.

First, there is an important conceptual difference between talking about what people throw away and talking about what people waste.If one society deposits more unused materials on the environment than another one, does this mean it is more wasteful?Or does it mean that it processes more in the first place – so that there is simply a greater quantity of materials passing through its various industrial and domestic sectors?Is paper or plastic in a landfill more wasteful than offal or ash on the street, for example?It is far from clear that, as a proportion of what is produced and consumed, present-day consumers squander any more than any historical society has ever done.This is not to say that larger and/or more toxic depositions have no greater environmental impact but that is a rather different proposition to the claim that contemporary consumers are inherently more profligate.Second, by and large, the claim that contemporary societies are unusually wasteful compared to the past is based on an analysis only of municipal wastes and their relation to consumer discards.The time-frame for the analysis has tended to be short – where any time-frame is referenced at all less than a decade is typical.However, looking at patterns of twentieth century household waste suggest that today's consumers are not necessarily as profligate in relation to the past as contemporary commentary tends to imply.In this article I take a brief look at the core of the 'throwaway society' thesis and make some comment on its modern origins before presenting and discussing data on household waste across the twentieth century. I conclude that there is nothing peculiarly post-war

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about dumping huge quantities of unwanted stuff and then lambasting the waste that it represents.

2. 'The Great Curse of Gluttony'

An important part of the problem with the throwaway society thesis is that it is rooted in a family of ideas about the 'crisis of waste' that brings together a moral critique and a sociological analysis of consumerism.The moral critique pays attention to escalating demand, high product turnover, and built-in obsolescence in a society increasingly oriented towards convenience.The sociological analysis pays attention to economic and cultural changes (particularly in the post-war period) relating to levels of affluence, patterns of taste and industrial innovation.Thus, Matthew Gandy (1993: 31) claimed that:

'The post-war period has seen a dramatic increase in the production of waste, reflecting unprecedented global levels of economic activity.The increase in the waste stream can be attributed to a number of factors: rising levels of affluence; cheaper consumer products; the advent of built-in obsolescence and shorter product life-cycles; the proliferation of packaging; changing patterns of taste and consumption; and the demand for convenience products.'

Hans Tammemagi (1999: 25-6) picked up on this worldview and blamed post-war 'consumerism' for the waste crisis in almost exactly the same terms.However, the critique of wastefulness always exceeds a sociological analysis of waste as such and invariably revolves around a moral critique of the consumer society.Thus, Zygmunt Bauman's analysis of the contemporary culture of waste descends rapidly upon modern society's 'addiction' to consumption and disposal[1] to argue that said culture has become 'a culture of disengagement, discontinuity and forgetting'[2]. John Scanlan charged his voraciously wasteful fellow citizens with absent-minded, blind ignorance[16]. Jeff Ferrell, meanwhile, accused his consumption-driven American compatriots of promoting an 'existential affirmation of domination and control' (2006: 192). The 'culture and economy of consumption,' writes Ferrell, 'promotes not only endless acquisition, but the steady disposal of yesterday's purchases by consumers who, awash in their own impatient insatiability, must make room for tomorrow's next round of consumption' (ibid: 28).In all of these cases, the critique is directed at post-war social development and implies that there is something peculiarly wasteful about contemporary society; that modern consumers are uniquely profligate, ignorant, disdainful of their consumption behaviour compared to their parents and grandparents.Moreover, the disdain is a feature not only of their specific acts of wasting but has seeped out to become a cultural force in its own right: the callous wastrels of contemporary consumerism have built, so to speak, the callous culture they deserve.However, there remain some basic questions about whether or not the evidence underlying the moral-sociological analysis is sufficient to support the conclusions.Is it true that post-war consumers are in fact uniquely wasteful?Is it true that unproblematic moral lessons can be drawn from the past: that our forebears were more careful or less wasteful; that they held objects in stewardship whilst we disdainfully discard them?The questions are particularly pertinent because the critics do not take history seriously: in none of the cases that I have cited is there one iota of serious reflection – let alone empirical evidence – on the history of wasting.Yet without evidence how can any scholar bring themselves to level such a deeply insulting range of accusations against their fellow citizens?

The fact is that the critique of consumer decadence precedes World War Two by several decades (at least).Frederick Talbot (1919, and below), for example, castigated the wastrels of the early twentieth century for their callous destruction and disposal of the valuable contents of their dustbins and his was not an isolated voice (see[19]; Koller,[10] – whose book was published originally in 1902 in Germany).It is certainly true that the terms through which the critique was levelled were different to the terms now commonly used.Yet this difference is itself a matter of historical and sociological interest: the modern critique of wasteful consumers did not drop, unbidden, out of the sky.It does not reflect something obviously true about present day consumers.Instead, it represents a particular outlook on the relationship between waste and society: one not shared exactly by our forebears and one unlikely to be shared by succeeding generations.Whilst contemporary critics of consumer profligacy (especially those of a leftist persuasion) tend to cite Vance Packard (1968) with approval[8] they invariably omit to mention that Packard's assessment of the throwaway society was rooted in an immensely conservative and thoroughly right-wing source.The modern moral critique of consumerism and its association with gluttony and pointless 'waste' – and all of the associated insulting epithets heaped on contemporary consumers – was actually born in the midst of World War Two and not in a succeeding age of moral decline.'For it is the great curse of gluttony,' wrote Dorothy Sayers in her 1941 essay 'The Other Six Deadly Sins', 'that it ends by destroying all sense of the precious, the unique, the irreplaceable'[15]. Modern over-production and over-consumption, she claimed, was intent on generating waste, on destroying all true values and substituting the pointless, and unsustainable, desire to possess and revel in 'all the slop and swill that pour down the sewers over which the palace of Gluttony is built' (ibid).

The essay is part of a theologically inspired collection published as *Creed or Chaos?* (1948). The collection consists of a series of laments on the moral decay of mid-twentieth century society, where no-one has the right attitude to each other, to the community at large, to work, to religion, or anything else.They comprise an intemperate tirade against Keynesian demand management and, in Sayers' opinion, the excesses of the burgeoning welfare state.Rooted in Western Christian dogma, the essays condemn almost the entirety of social and industrial development since some (unspecified) mythical age of craft, community and thrift.For

Sayers, the modern industrial world is a world of artifice and pretence whose earthly span must surely be near its end, as she suggests in the 1942 essay 'Why Work?':

'A society in which consumption has to be artificially stimulated in order to keep production going is a society founded on trash and waste, and such a society is a house built on sand' (1948: 47)

This polemical blast against the entire edifice of Keynesian economics appears as the frontispiece of Vance Packard's celebrated text *The Waste Makers* (first published in 1960).Given the widespread popularity of the vulgar version of Packard's thesis – that manipulative advertising and marketing strategies are tools for the expansion of an unsustainable consumption-led economic system – it is more than surprising that its right-wing, dogmatic, theological roots are not the subject of more sustained, reflective commentary.That there are more connections between Packard's thesis and Sayers' tirade beyond the frontispiece is evident on even a cursory comparison between the books.

For example, 'We need not remind ourselves of the furious barrage of advertisements by which people are flattered and frightened out of a reasonable contentment into a greedy hankering after goods which they do not need; nor point out for the thousandth time how every evil passion – snobbery, laziness, vanity, concupiscence, ignorance, greed – is appealed to in these campaigns' wrote Sayers in her 1942 essay (1948: p. 71).Packard, describing the alleged 'need' to stimulate growth in the American economy, appended: 'What was needed was strategies that would make Americans in large numbers into voracious, wasteful, compulsive consumers' and 'The way to end the glut[of commodities] was to produce gluttons' (1967: 34, 37). In 1940 Sayers complained that, in the modern age, people have lost a sense of personal worth and of the value of service to the community, of work for the sake of contributing to social well-being and for its own intrinsic reward.Thus, people only work to earn money with which to purchase things they do not need, with the consequence that 'the result of the work is a by-product; the *aim* of the work is to earn money to do something else'[15]. Packard repeated the complaint, claiming that 'The lives of most Americans have become so intermeshed with acts of consumption that they tend to gain their feelings of significance in life from these acts of consumption rather than from their meditations, achievements, personal worth and service to others' (1967: 292).

The point, here, is not to engage in an extended critical interpretation of Sayers or Packard but to show that the critique of consumer profligacy is not a post-war phenomenon but is, rather, a running critical subtext in the analysis of modern industrial development.The important thing to note about this critical continuity is that it would not exist were there nothing to criticise: gluttony, voraciousness, profligacy, ignorance: these have been the watchwords of generations of social commentators focusing their disparaging lenses on the ordinary men and women of industrial society.They have been the watchwords because, like us, our parents and grandparents were perceived as wastrels by those commentators.

3. Disposable History

Official data seem to suggest, and are regularly taken to imply, that household waste generation is growing at an unsustainable rate.Indeed, according to UKDEFRA[3] between 1996/7 and 2002/3 total municipal waste (including non-household sources) appeared to increase from 24.59 million tonnes to 29.31 million tonnes.Total household waste generation appeared to increase from 22.55 million tonnes to 25.82 million tonnes although, as I will explain later, this household fraction of the total is not as straightforward as it appears.No explanation is offered for this enormous increase and DEFRA does not provide any commentary on how it has been possible for householders to process close to 3.3 million *extratonnes* of waste in just six years. Using Murray's[11] calculation of the total number of households (24.6 million) this increase represents an extra 134kg per household per annum or about 5.7lbs per week.From where have householders gained the capacity to consume enough extra goods to generate approaching 6lbs more waste every week?Whatever the numbers appear to show there is something mysterious about this incredible rate of growth and here I make some brief comments on whether the statistics really do paint a picture of relentlessly and rapidly rising profligacy.

The temptation to view with alarm the apparent increase in household waste is understandable but the alarm needs to be tempered with a realistic assessment of what lies behind it.There are several possible explanations for the apparent growth rate, only one of which demonises consumers and their throwaway mentality.The simplest explanation for increased amounts of household waste may be that there has been an increase in the population during the period.In this case, if the rate of growth of the population equalled the rate of growth of household waste there would be no per capita increase in the total discards.Rather, the increased amount of waste would reflect nothing more than an increased number of people disposing of unwanted items.It is true that England's (official) population increased between1997-2003 by around 3.5% - approximately from 48.2 millions to 49.9 millions.The rate of growth of the population has been slower than the alleged rate of growth of household waste.Even so, however, it is still the case that a significant proportion of latter's increase derives from a larger population rather than an increase in consumer profligacy.

A second explanation might be that people have become relatively wealthier across the period–either through absolute gains in monetary income or through relative declines in prices.In both cases, increasing amounts of waste might reflect increasing quantities of goods being brought into the house as a consequence of increasing personal wealth.According to the Family Expenditure Survey (2003), average incomes rose by 17% between 1997-8 and 2002-3 with the largest gains being made by lower income

groups.However, whilst monetary incomes rose, the evidence on increasing personal wealth is more ambiguous.Certainly, in spite of the gains made at the lower income levels, the inequality gap continued to widen over the same period.Similarly, inflation has eaten away at the real value of the incomes and the rising costs of key items of household expenditure (such as fuel and housing) have had unequal impacts on lower and middle income groups.Whilst there have been some gains in income, on average these have been too small to account for the alleged growth in quantities of municipal waste.The apparent increases in that waste cannot be attributed to wealthier consumers acquiring and disposing of more goods.

A third explanation might be that there has been no change in population, no significant increase in wealth but changes in disposal practices.In this case, without any increased material 'inputs,' households have consumed less and less, and discarded more and more, of those materials.If this could be confirmed it would indeed demonstrate that the throwaway mentality really had taken hold and in turn would support the moral critique of the effects of consumerism.However, there is not a single shred of evidence to support a claim that contemporary consumers have taken to discarding greater proportions of what they buy.

I include these few comments on waste statistics to alert readers to the fact that they do not portray as clear a picture as is often implied in social commentary about contemporary wastefulness.The portrait is blurred by the absence of detailed analysis about what lies behind the rows and columns of numbers.What is true about information on contemporary waste is even moretrue about information relating to historical waste.In particular, historical comparisons are hindered by the absence of any accepted base-line evidence on historical changes either in rates of household waste disposal or in the ratios of the various discarded materials.What evidence does exist, like data on contemporary waste disposal incidentally, is compromised by the use of different classification systems and by attention to different substances found in domestic dustbins.Historical estimates of household waste arisings diverge in their classification systems as much as they differ from contemporary systems.In relation to changing understandings of the character of the waste problem, the available research pays attention to different dustbin contents over time.

As I noted above, recent UK government statistics[3] on municipal waste indicate that around 29 million tonnes of municipal rubbish was collected in England in 2000-2001.Of this, almost 3 million tonnes was non-household waste, almost 4.5 million tonnes was collected via civic amenity sites and 2.8 million tonnes was generated by household recycling schemes.In fact, the total waste collected via the dustbin was only 16.8 million tonnes.This figure represents a very small fraction (about 3.5 per cent) of the total (industrial, commercial, agricultural, etc.) annual waste arisings in the UK.DEFRA calculates that, via the dustbin, at the end of the twentieth century, each English household disposed of 15.5-16 kilograms of rubbish each week.This is equivalent to just over 2.2 kilograms or 4.4 pounds per household per day.If you divide the total English dustbin waste for 2001 by the population of England at 2001 (a little over 49 millions) you find that waste-generation per person is 749.6 pounds per annum or approximately 2.05 pounds per day.It is highly instructive to compare this with the figures provided by the National Salvage Council (NSC) for 1918-1919 (quoted in Talbot, 1919: 143-4).The NSC's conservative estimate was that, for the year following the end of the Great War, household waste arisings stood at 9.45 million tons.According to Talbot's calculations, this produces a figure of around 1.68 pounds of waste disposed of via the dustbin per *person* per day, or 613 pounds per annum for every person in Britain.

It also needs to be noted that the population that forms the basis of the calculations increased by more than a third in the period between 1921 and the century's end[9].If the population of England at the end of the Great War were the same as it is today, the conservative estimate of waste arisings collected via the dustbin would have stood at around 13.4 million tons per annum.If we take these figures at face value, and comparing dustbin wastes only, the conclusion must be that between 1919 and 2002 total household waste arisings by weight might have increased by around twenty per cent – although, as we shall see, there are yet more caveats to be entered into the picture.

In fact, by weight, the amount of waste disposed of by households fell consistently across the middle part of the 20th century, only returning to early-century levels in the 1970s.The UK Department of the Environment (1971) observed that the weight (and density) of household refuse fell from an average of 17Kg (290 kg/m^3) per week in 1935 to 13.2Kg (157 kg/m^3) per week in 1968 (Department of the Environment, 1971; see also[6]).Obviously, there have been several social changes in the intervening period – such as the smaller number of occupants per household – but these national average figures for household waste disposal, like Talbot's calculations of per capita waste disposal, are not markedly dissimilar to the present time.It is tempting to suggest that the weight of household waste fell because of the diminishing proportion of ash and cinder to be found in it.Indeed, this explanation is proffered by the DoE (1971) in the following terms:

'Much of the reduction in weight of refuse has been due to the decline in the domestic consumption of coal and manufactured solid fuel which reduced from 37.5 million tons to 25.5 million tons in the ten years prior to 1967, with a consequent reduction in ash content.'

However, the data about the relationships between ash content and weight are contradictory.Skitt (1972: 19) compared waste from households in smoke control areas with waste from households in 'open fires' areas and noted that, in spite of the fact that 'open fires' household waste had more than double the ash and cinder content of the smoke control households, the overall weight of the waste differed

by only half a pound.Flintoff& Millard[6], on the other hand, concluded that the weight of waste produced by households in smoke control areas was almost 25% heavier than the waste produced by 'normal properties' even though the two kinds of households generated the roughly the same amount of ash and cinder content. The waste generated from centrally-heated multi-storey flats, on the other hand, was less than two thirds the weight of that produced in the smoke control area.These comparisons of the waste generated in different types of household are interesting in other ways and I return to them below but the point of introducing these data here is to note that it is far from clear that the overall weight of waste changed because of the absence of ash and cinder.

Table 1. Contents of dustbin (Talbot, 1919)

Material	Percentage by weight
Fine Dust	50.98
Cinders	39.63
Bricks, pots, shales, etc	5.35
Tins	0.98
Rags	0.40
Glass	0.61
Bones	0.05
Vegetable matter	0.72
Scrap iron	0.06
Shells (oyster, etc.)	0.08
Paper	0.62

Some might argue that straight comparisons in terms of weight distort the picture because households in the post-Great War period appeared to dispose of a smaller variety of items overall and the bulk items that they discarded had little value.Whereas today's households, the argument might run, regularly dump useful resources, or items they have over-purchased and cannot use, did not our great grandparents discard only what was finally, utterly useless?After all, according to the NSC, the contents of the household dustbin at the end of the Great War consisted mostly of ash and cinders.In fact, these two constituents accounted for over 90% of the dustbin's contents – the remainder comprising fractional quantities of metal, glass, rags, bones and miscellaneous items (see table 1).Thus, a simple glance at these numbers appears to support the conclusion that, in the aftermath of the Great War, households were indeed thrifty units that discarded virtually nothing other than the dust and cinder of the domestic hearth.What were householders supposed to do with the ash and cinder that accounted for some 90% of their discards?Even if the weight of their dustbin discards was not that much less than our own, the more important indicator, surely, appears to lie in the contents.A study of those contents initially appears to reveal the truth of the proposition that our great grandparents stewarded, cared for, or used up as much as they possibly could before discarding the last, valueless traces of useless rubbish.

ver, things are not as straightforward and obvious as they might appear from a cursory glance at the NSC's estimates of the contents of post-Great War dustbins.There are reasons why the dustbins contained these particular materials and, as I have noted, there were some highly critical voices being raised at the wanton profligacy of householders in discarding or destroying them.On the latter issue, although the complaints were diverse in their tone and targets there was a particular concern over the (mis)use of the domestic fire as a household waste incinerator (see also below) and a complaint about the 'waste' of the dust and cinders that householders discarded.The cinders, for example, retained a high calorific value and, instead of unceremoniously dumping them on the rubbish tips, they were candidates for recovery and re-use – either in fuelling domestic fires or in fuelling central power-generation plants or, indeed, in any business that used solid fuel for heating or production purposes.In this way, effective use of the cinder content would substitute for new coal extraction.'The total conservation of this fraction of refuse,' claims Wiley (1955: 87), 'would be the equivalent of rather more than two million tons of coal.'Moreover, the ash was seen as a good basis for producing fertiliser that could be applied to cropland – by combining it with sewage sludge or other wet fertiliser compounds – and, thereby, act as a substitute for imported guano or dug-up peat, for example.Additionally, both the cinder and the ash could be made into construction materials – especially, but not exclusively, in road-building – and thereby substitute for newly quarried materials.The bulk of the ash and cinder content of the dustbin, far from representing the final and utterly useless remnants of thrifty household stewardship, were construed by some as valuable resources that householders and municipal authorities callously and selfishly 'wasted.'

A related set of issues arises when considering what the remaining contents of the post-Great War dustbin comprised and the set falls into a number of different subgroups.Like the ash and cinder 'waste,' an analysis of these contents does not automatically demonstrate that early century households were less wasteful than present day households.It is notable that Talbot does not say why early-century dustbins contained the materials that they did, or what these materials revealed about household rates of wastage.The first impression gained might be that such fractional quantities of discarded vegetable matter (0.72% of the total), for example, indicate clearly that those households only very reluctantly discarded this material.However, there are several reasons why such an impression cannot be validated.The first problem is that whilst the quantity of vegetable matter as a proportion of dustbin contents is provided the most crucial datum – the ratio of vegetable matter productively used to vegetable matter discarded – is not.If we take the NSC's figure of 613lbs of waste generated per person per annum and apply to it the ratio of vegetable matter found in the dustbin it emerges that the 'average' person would have been disposing of 4.6lbs of vegetable matter every year or 0.09lbs per week.At that rate, a family of five would be throwing less than ½ lb of vegetable matter per week into the dustbin.But this number says nothing about how wasteful that family is.If the family brought, say, 50lbs of vegetable matter into the

house weekly, then ½ lb does appear to represent a very low wastage rate.On the other hand, if the family brought only 1lb of vegetable matter into the household weekly, then ½ lb represents a significant amount of wastage.Since we do not know what the ratio of input to output is then we cannot draw conclusions about whether early century households were more or less profligate than our own in their dealings with vegetable matter.

Another subgroup of questions arises if we ask whether the dustbin was the only means of disposing of unwanted quantities of matter.The question is thrown into sharp relief if the NSC's figures for 1919 are compared with figures provided by the Department of the Environment for 1935 (see table 2).

Table 2. Average representative samples of house refuse from towns in Britain for the year 1935 (DoE, 1971: 23)

Material	Per Cent	Weight
Fine dust & small cinder – ½ in AND cinder - + ½ in – 1¾ in	56.98	21.4
Vegetable & putrescible	13.71	5.1
Paper	14.29	5.4
Metal (ferrous & non-ferrous)	4.00	1.5
Rag (including bagging & all textiles)	1.89	0.7
Glassware (bottles, jars & cullet)	3.36	1.2
Unclassified debris (combustible & incombustible)	5.77	2.2
	100	37.5

There are several remarkable things about the data for 1935.They include the changed proportion of ash and cinder – down from 90.61% to 56.98% in just sixteen years – and the relatively large proportion of glass (compare the 1935 ratio of 3.36% with Project Integra's calculation of 4.1% for 1999).Of particular interest, given the preceding discussion, is the enormous increase in the proportion of vegetable and putrescible matter – from 0.72% to 13.71% of the dustbin's contents.Obviously, not all of this is attributable to the extra vegetable matter itself.Some of the proportionate increase is a consequence of the changing overall contents, in particular the reduction in ash and cinder content.However, the DoE data indicate that the total weight, as well as the ratio, of vegetable matter in the dustbin had grown very rapidly since the end of the Great War.The first reaction to the stark contrast between the amount of vegetable waste in dustbins in 1919 and the amount found in 1935 might be to reason that either a) households in 1919 consumed much smaller quantities of vegetable matter or b) that they were much less wasteful of what vegetable matter they did consume.In other words, it may be taken as evidence of the growing profligacy of householders under early impact of a nascent consumer culture.

However, there is something puzzling about Talbot's initial claim about the quantity of discarded vegetable matter.Given the glaring difference between the 1919 weight (less than half a pound for a family of five) and the 1935 weight provided by the DoE (an average of 5.1 lbs) it must be asked what it is that the NSC's and the DoE's data represent.Do they represent the total quantities of vegetable matter disposed of by households or only the quantities disposed of via the dustbin?If the former then, at least in respect of the waste of vegetable matter, the period following the Great War might be characterised as the most rapidly developing throwaway society imaginable (perhaps in the region of 1000% increase in this waste in just 16 years), putting contemporary consumers in the shade when it comes to rates of profligacy.Alternatively, they may represent the fact that the British diet had improved hugely and the amount of vegetable waste in the dustbin reflected nothing more sinister than a better-provisioned population who were not proportionately more wasteful than their 1919 counterparts.Alternatively again, the separate collection of vegetable matter by Local Authorities and independent traders diminished in the period following the Great War and, in consequence, increased amounts of vegetable matter in the dustbin may have reflected changing waste management practices rather than changing household wastefulness.

An illustration of the importance of this latter issue is provided by Soper (1909: 72).Referring to London only he observes that, in the year 1905, 51,572 loads of house and trade refuse were collected and '31,915 loads of street sweepings and slop.'In other words 'street sweepings and slop' that were not thrown in the dustbin were equivalent to almost 62% of the total house and trade refuse collected annually.Soper does not define specifically what is meant by 'slop' in this context but, in an earlier section discussing common terms for rubbish in the United States, he says that 'garbage, swill and slop' all denote kitchen waste (ibid: 31).Assuming consistency of definition, Soper provides a plausible reason for the absence of vegetable matter in the 1919 dustbin: it is not that householders discarded very little of it but that they disposed of it by means other than placing it therein.

Soper's observation about sweepings and slop alerts us to another dimension of early century household waste generation.Extrapolating from his (1905) figures for London, if the NSC's national calculations for 1918-19 had included street sweepings and slop then it might be suggested that the total amount of what is now termed 'household' waste collected would have been in the region of 15.3 million tons; and if the population were the same as that used to estimate contemporary waste generation then total annual household waste arisings for 1918-19 would have been around 20.4 million tons.It is true that these calculations of weight may not represent an accurate picture since Soper does not indicate the relative weight of street sweepings and slop compared to house and trade refuse – but this only reinforces the need to ensure that equivalent data are used when comparing waste generation in the past and in the present, especially if claims are made about a consumption-driven, post-war waste 'crisis.'

All of the studies referring to early- to mid-century household waste note high proportions of dust and cinder in the dustbin.It is tempting to think of this material as merely the remains of the solid fuel that provided householders with

heat for cooking and comfort but that would be to miss the crucial role of the domestic fire as a waste management technology.As Talbot, Wiley and others had noted, the domestic fire was as important a waste disposal method as the dustbin itself; in general, if it *would* burn it *did* burn.The waste incinerator that was the open fire not only consumed paper, cardboard and wood it also devoured rags and putrescible matter including waste fats.In fact, as Wylie (1955: 87-8) observes, householders had for long been encouraged to burn putrescible materials 'in order to simplify disposal difficulties and reduce collection costs.'Spooner[19], discussing ways of economising by productively utilising wastes in the household, confirms what Wylie anecdotally acknowledged by providing specific instructions on the matter:

'Rubbish, leaves, potato and apple parings, tea-leaves, orange peelings, paper, cardboard boxes, and animal and vegetable refuse of every kind and description should be burnt in the kitchen grate, and on no account be placed in the dustbin.Burning the rubbish at home will reduce the coal bill and relieve the Borough Council of a great deal of unnecessary expense, amounting to thousands a year, in collecting and destroying the refuse.'

The tendency to burn wastes on the open fire did indeed have a dramatic impact on the contents of the household dustbin, an impact that is sometimes visible in studies of the seasonal variations in the proportions of its assorted constituents.Drawing on data from the City of Edinburgh for the year 1949-50 Wylie notes the huge differences in the amount of food and paper waste found in domestic refuse.During the summer months those dustbins contained five times more vegetable waste, three times more paper waste and double the amount of bones compared to the winter months.Some of these differences would be explained by variations in diet but more significantly – as the case of paper suggests – they were a consequence of how often the fire was lit.No exact figures are available to specify how much the domestic dustbin would have weighed (or what the volume of household waste would have been) if a considerable proportion of its contents had not gone up in smoke but it is clear that household waste incineration had a major impact on those contents.

Wylie's concerns about the quantities of materials going up in smoke are partially confirmed by Skitt (1972), who undertook a comparison of dustbin contents in a smoke control area and an open fires area in the late 1960s.Just as Wiley had claimed, the more householders made regular use of an open fire the more dramatic was the impact on the contents of the household dustbin.In the smoke control area 23.65% of those contents consisted of vegetable and putrescible matter and a further 23.62% consisted of paper.In the open fires area, on the other hand, only 6.23% of the dustbin's contents comprised vegetable matter and an even smaller proportion (3.91%) comprised paper.According to Skitt's data, 'open fires' households were discarding less than 3lbs per week of paper and vegetable matter whilst households in smoke control areas were discarding over 13lbs per week of the same materials.Flintoff& Millard[6], on the other hand, suggested that where householders had no access to a fire, the combined weight of the paper and vegetable discards came close to 16lbs per week whereas in areas where the open fire was regularly used these constituents accounted for around only 11lbs per week.

These various historical snapshots of the contents of household dustbins do not constitute 'proof' of past wastefulness but they do at least suggest that some scepticism needs to be applied to the claim that contemporary consumers are uniquely improvident or that the waste 'crisis' is a consequence of ever increasing discards blighting a throwaway society.It is true that the variety and proportions of discarded materials in the dustbin have changed over time but it is not clear that these changes ought to be laid unproblematically at the door of consumerism.As important have been changes in waste management practices – changes that have encouraged the trend towards sending more and more discards to landfills instead of destroying them at home.

Table 3. 'Typical analysis of domestic refuse by weight'[6]

Constituent	1935 %	1955 %	1960 %	1965 %
Dust (under ½ in)	39	45	43	24
Cinder (½ in to 1 ½ in)	18	8	8	12
Vegetable and putrescible	13	12	12	17
Paper & cardboard	15	15	16	23
Metal	4	6	6	7
Textiles	2	2	3	3
Glass	3	6	6	8
Unclassified Debris	6	6	6	6
Yield per house per week (lb.)	38	33	32	27

Table 4. 'Average representative sampling of refuse from various towns in Britain.Domestic refuse only' (Skitt, 1972: 16)

Constituent	1935-6%	1963 %	1967 %	1969 %
Fine dust & small cinder – under ½ in	56.98	27.95	22.66	15.24
Cinder content – ½ in to 1 ¾ in	-	10.88	8.29	1.98
Vegetable and putrescible	13.71	14.07	15.50	19.45
Paper content	14.29	23.03	29.50	38.03
Metal (ferrous and non-ferrous)	4.00	8.02	8.00	9.71
Rags (including bagging and all textiles)	1.89	2.61	2.10	2.28
Glassware (bottles, jars, cullet)	3.36	8.56	8.10	10.45
Unclassified Debris (combustible & incombustible)	5.77	4.88	4.70	1.50
Plastics	-	-	1.15	1.36
Average yield per house per week (lb.)	37.50	31	28.50	28.10

NB.The column for the year 1968 has been removed from Skitt's original table

Again, a cursory look at trends in household waste disposal appears to show that householders have been discarding ever-increasing quantities of materials.Although tables 3 and 4 list somewhat different quantities for dustbin discards, and although the percentage constituents are not identical, they both sketch a similar picture of the trends in household waste.

Both studies appear to show that there have been steady increases in the amounts of paper, vegetable matter, metals and glass in English dustbins across the twentieth century.What they in fact show, however, is the changing *proportion*, rather than the changing *amounts*, of the contents of those dustbins.In reality, the only component that witnessed significant weight increases across the middle part of the twentieth century was paper which, according to Skitt, increased from 5.4lbs per week in 1935 to 10.6lbs in 1969, although Flintoff& Millard put the figure at a much lower weight of 6.2lbs in 1965.It is interesting to note that Murray[11] calculates the weekly weight of paper in the dustbin to be around 8lbs – or somewhat lower that Skitt's calculations for 1969.The weight of some of the other constituents has risen only very slowly or remained stable over time and, in more recent times, may actually have fallen.For example, according to Flintoff& Millard, in 1960 householders binned around 1.9lbs of waste metals weekly compared to 1.52lbs in 1935.Yet, forty years later, according to Murray, households generated only 1.2lbs of metal waste weekly, a significant proportion of which was recycled (16% of steel cans and up to 33% of aluminium cans.[11]).In 1969, according to Skitt, households generated a little under 3lbs per week of waste glass compared with 1.26lbs in 1935.In 1999, according to Murray, households generated a little over 3lbs per week of this material with, again, a significant proportion being recycled (30%.Ibid: 85).Returning to the theme of food waste, note that the actual weight of vegetable and putrescible matter in the dustbin barely changed at all across thirty years of a developing consumer culture, being roughly 5lbs per week in 1935 and roughly 5lbs per week in 1969.Again, these numbers need to be set alongside Murray's[11] calculations which put the weekly weight of kitchen waste at around 6.3lbs at the end of the twentieth century.In terms of metals, glass, food and, to a lesser extent, paper the suggestion that post-war consumerism has produced a rabidly wasteful culture in which mindless householders callously waste ever-increasing amounts of materials that our grandparents stewarded does not stand up to scrutiny.

But what of all the other refuse and detritus that contemporary households produce?Surely, the hugely increased variety of goods entering the house has had an impact on contemporary dustbins?At least here the proposition has some evidential basis but it is not the case that contemporary households generate significantly greater amounts of miscellaneous waste.According to the DoE, Skitt, and Flintoff& Millard, the weight of 'unclassified refuse' in the dustbin in 1935 was a little over 2lbs per week.In Murray's study, as well as a greater variety of constituents (nappies, plastics, drinks boxes, and so on) the total weight of the 'other refuse' is also larger – at just under 7lbs weekly.Here, the weight of the discards has certainly increased – by a factor of three – but from a very low initial base to a not very high final total.More than half a century of a consumer culture, then, has caused households to generate an extra 5lbs (or less) of miscellaneous household refuse weekly some of which (like engine oil, for example) often does not find its way into the dustbin.

It may be that some readers will dispute an analysis that focuses on the contents of the dustbin, excluding other elements of the municipal waste stream.However, if claims are to be made about a consumer-driven waste crisis, based on comparisons between waste arisings in the past and in the present, then equivalent data must be used.Since the historical data quoted in the literature relate to domestic waste collected via the dustbin it is only proper that contemporary data relate to the same source.There is no value comparing dustbin data from the past with all municipal waste data in the present because they refer to different things.The NSC's data for 1918-19, for example, excludes the millions of tons of horse manure and horse carcasses, litter and street scrap, building and demolition debris collected annually by the municipal authorities or simply dumped wherever it was convenient by what we now call 'fly-tippers' – nor do any of the studies consider the weight or volume of the smoke that went up the domestic chimneys only to settle over buildings, persons farm- and park-land and everywhere else.Neither Skitt, nor Flintoff&Millard include non-dustbin waste in their analysis and the DoE (1971) observing the stability in the vegetable content of the dustbin comment, separately, that 'there has been an increase in the quantities of garden refuse collected' – in other words, garden waste was not included in their analysis of household waste.Murray's study, on the other hand, places garden waste within the category of household waste.This 'waste' accounts for fully 18% of the total household waste generated annually – about 326lbs per household per year.If this material is subtracted from the total, for the purpose of comparing like with like, we find that in 1999 English households disposed of around 1485lbs of waste per week.In 1969, according to the DoE, households disposed of 1518lbs per week.

4. Concluding Remarks

What can be concluded from this brief foray into twentieth century patterns of domestic wastage?On the basis of the available evidence, and comparing like with like, in the UK, at least, the claim that the period following the Second World War has been an anomalously wasteful era is somewhat dubious.It is questionable whether the waste crisis is a feature of profligate post-consumption disposal.It is not proven that contemporary consumers are more wantonly wasteful than our predecessors.It is certainly not true that, on the basis of consumer activity, we can contrast our own 'throwaway society' to our grandparents' age of stewardship,

carefulness and frugality.In reality, the evidence indicates that our grandparents were as likely to discard reusable items as we are.They were as wasteful– *in the social and industrial context of their time* – as we are.Even if, to us, our grandparents and their grandparents before them appeared to be more frugal and careful, gross habits of waste and disposal exhibit continuity, not radical change.Indeed, the evidence on urban domestic waste indicates that throwing things away and only partially managing the throwing away process is an intrinsic element of the social organisation of industrial society and is not a peculiarity of our putatively wasteful post-war era.Whilst I would not suggest that 'waste' represents no problems at all I would certainly encourage a more serious sociological engagement with its historical reality than is provided in the moral sociology of the throwaway society thesis.

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