Public Understanding of Sustainable Clothing

A research report completed for the Department for Environment, Food and Rural Affairs by Nottingham Trent University and Sheffield Hallam University

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Public Understanding of Sustainable Clothing

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This volume is accompanied by a volume of appendices containing technical material on the research process.

Glossary

Defra	Department for Environment, Food and Rural Affairs
EA	Environment Agency
DCMS	Department for Culture Media and Sport
DCSF	Department for Children Schools and Families
SEG	Socio Economic Group

Executive Summary

Background

The primary purpose of this study is to clarify the general public's understanding of sustainable clothing and to explore people's aspirations and motivations towards its purchase and use, including their expectations of government and industry. It explores how acceptable the public would find measures to lessen the sustainability impacts of clothing production, use and disposal in the context of Defra's Sustainable Clothing Roadmap, and the likelihood of such measures changing people's behaviour.

The formal objectives of the project were to use qualitative methods, including focus groups, home-based diary tasks and deliberative workshops, in order to:

- understand consumers' aspirations for their clothing
- gauge consumers' understanding of the concept of 'sustainable clothing' and of products such as organic cotton and fair trade clothes
- identify consumers' assumptions concerning 'good' clothing and to assess how people interpret and relate the concepts of 'sustainable clothing' and 'good clothing'
- gauge consumers' ability to adopt more sustainable patterns of clothes consumption in respect of particular behaviour goals (see below)
- assess the degree of understanding of sustainability in relation to clothing in specific population segments
- understand how ideas and attitudes linked to sustainability interlock with consumers' everyday habits, routines and aspirations
- explore a variety of public attitudes to sustainability and behavioural changes that might address issues of economic, environmental and social sustainability.

The behaviour goals Defra identified which will improve the sustainability impacts of clothing are:
- Repair or adapt clothing to prolong its life, and return/recycle it at the end of its life/when you no longer want it
- Wash clothes at 30°C and use eco-friendly cleaning technologies
- Line dry clothes whenever possible and when using dryers reduce the drying time and separate synthetic and natural fibres
- Buy clothing that is sustainable
- Buy clothes that last for longer

Research approach

The research process used a qualitative approach and followed a sequence of steps: focus groups; home tasks; deliberative workshops. Participants were recruited in Nottingham, St Albans and Manchester, using Defra's Environmental Segmentation Model[1] but without divulging the particular subject of the research. The methodological sequence gave insights into the participants' existing views and the scope for people to change their behaviour in response to information about the sustainability impacts of clothing. The fieldwork for the project was carried out between March and July 2008. The

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[1] Details of this segmentation model can be found below in Chapter 2 and in the appendices.

research process is detailed in Chapter 2.

Findings

The key findings of this research are:

➢ That the level of awareness of the sustainability impacts of clothing is low.
  ▪ Determinants of 'good' clothes include fashion, price, quality and longevity.
  ▪ Classic clothes associated with an enduring style and good quality are purchased deliberately for particular occasions or purposes.
  ▪ Clothing that is well made and intended to last tends to be associated with quality rather than sustainability.
  ▪ The 'newness' of clothing is for many people an important motivation for purchasing clothes.

➢ Even amongst the most pro-environmental clothing choices most often derive from considerations of identity and economy rather than of sustainability impacts.

➢ Fashion and cheap clothing influence clothing choices, but have different impacts on consumers depending on their life stage with some people expressing a weary resignation to fashion trends.
  ▪ Many people, particularly in younger age groups, purchase cheap, fashionable clothing from low budget retailers, fully aware that it will not last long in a reasonable condition.

➢ People acquire the information that influences their clothing choices during the activity of shopping itself, as well as from conventional media.

➢ People may behave in a pro-environmental manner, such as line drying and using charity shops, but this may merely be an advantageous side-effect of their 'normal' routines. Many are aware of the cost of tumble drying, in economic terms more than energy terms, and many use line drying whenever possible.
  ▪ People are aware of the environmental benefits of washing at reduced temperatures and line drying clothes but are often constrained by their washing machine programme options, physical space and the weather.
  ▪ There is a reluctance to reduce the frequency with which clothes are washed because of the attraction of 'fresh' clothes and a fear of odour.
  ▪ A range of factors influence how clothes are dried, including the smell and feel (softness) of dried clothes, the 'wear', and the internal and external environments (i.e. home space and weather).

➢ People's everyday use and disposal of clothes is influenced by habits, routines and concepts of cleanliness which may outweigh enlightened views on sustainability.

➢ Some participants described quite complex habits to minimise their use of tumble dryers, which implies that this behaviour might respond more easily to efforts to change it.

➢ Although the skills and habits that once led to routine clothing maintenance have declined, the desire to repair clothes that were costly or are

especially valued persists.
- The cost of professional repair and alterations services is widely considered to be prohibitive.

➢ Clothes are routinely disposed of to charities, but there is a good deal of ignorance about what then happens to them – the distinctions between textile recycling and clothing reuse are not clearly understood.
- Cheap clothes are more likely to be discarded in the bin than given to charity, but expensive 'branded' products are considered durable and therefore suitable for charity.
- Cheap clothes are likely to be thrown away after a short period as they are perceived as inherently lacking in durability, but there is less evidence that fashion affects the length of use.

➢ When given information, more reflexive people seem open to changing their behaviour, particularly in respect of information about the energy impacts of laundry and the social impacts of clothing production.

➢ There is openness to government interventions in the clothing market, especially in the form of fiscal incentives, initiatives to increase confidence in certification schemes, and choice editing of high impact products.

➢ There is a lack of understanding of the sustainability impacts of clothing production, use and disposal - participants themselves remarked on their previous lack of knowledge in response to the information offered during the research process.

➢ While individuals might know which clothing habits are 'good' from a sustainability point of view, they do not necessarily act on this knowledge; the diary task and wardrobe audit did demonstrate that gaining awareness of the issues influenced the behaviour of some people.

➢ Participants expressed a degree of distrust of the motives of companies offering sustainable clothing but responded well to the proposals for policy interventions which would address the lack of trust in sustainability messages associated with products. These included clear and consistent labelling and certification schemes across the European Union.

➢ Although people indicated a preference for freedom of consumer choice, the research uncovered some willingness for government action to 'edit' consumer choices particularly where clothing available for purchase involves unacceptable social impacts in its production.

➢ This study has demonstrated that attitudes to clothing in general, and sustainable clothing in particular, are shaped by a multitude of factors, including people's age, gender and orientation to sustainability issues. Further survey-based research to quantify these relationships would be useful as a basis for policy interventions.

Researchers' Recommendations

Our recommendations are:

⬧ Improve the public's knowledge of sustainable clothing practices, using the appropriate media and to integrate information on the sustainability

implications of clothing acquisition, use and disposal into the retail environment.

- Build on the 'Wash at 30°C' campaign and consumers' desire to save money to promote good habits in tumble-dryer use.

- Encourage clothing maintenance skills and awareness for children and adults, including repair to promote longer life-spans for clothes, for instance by supporting alteration and repair services and targeting population segments that value thrift.

- Work with retailers and local councils to increase people's understanding of the reuse of clothing and recycling of fibre in order to divert textiles from the waste stream and develop greater understanding of informal second-hand markets and their potential to promote re-use.

- Further research should develop understanding of the motivations characteristic of each environmental behaviour segment: Relevant stakeholders could target sustainable clothing strategies at these motivations.

- Opportunities should be created to build people's trust, especially between government, industry and NGOs, to develop agreed standards and remove clothing with the most significant impacts from the market.

- Relevant stakeholders could work with EU partners to explore options to use fiscal measures and trade policies to promote sustainable clothing, providing better labelling on the source of products, such as the origin of cotton, and explore options to increase recovery of clothing through 'take back' schemes.

1 Introduction

1.1 Research brief

This research responds to a need to clarify public understanding, aspirations and motivations in respect of sustainable clothing, including expectations of government and industry, in the context of the Government's commitment to Sustainable Consumption and Production (SCP) and Defra's Sustainable Clothing Roadmap initiative (see http://www.defra.gov.uk/environment/consumerprod/products/clothing.htm).

Previous research has identified the key sustainability impacts of clothing (See for example Defra 2006, 2007a, 2007b, Allwood et al 2006, Tukker 2006, Madsen et al 2007, Forum for the Future 2007). Research reported here was commissioned to explore the acceptability of potential measures to reduce negative impacts and the likelihood of such measures bringing about changes in consumers' behaviour.

The outcomes envisaged for the research were greater understanding of how to help consumers mitigate the impacts of their clothing behaviour and messages that could engage them in debate and influence their future behaviour. The research brief therefore identified a set of objectives that included:

- understanding consumers' aspirations for their clothing

- gauging their understanding of the concept of 'sustainable clothing' and of products such as organic cotton and fair trade clothes

- identifying their assumptions of what constitutes 'good' clothing

- gauging their ability to adopt more sustainable patterns of clothes consumption in respect of particular behaviour goals.

These insights were to be set in the context of the potential role for government, producers and retailers in the supply of sustainable clothing to influence particular segments of the population (based on Defra's Environmental Segmentation Model) particularly consumers' *understanding, assumptions, aspirations and expectations*. The project team developed these objectives as follows:

  i. To gauge the degree of understanding of sustainability in relation to clothing in specific population segments.
  ii. To understand how ideas and attitudes linked to sustainability interlock with everyday habits, routines and aspirations.
  iii. To assess how people interpret and relate the concepts of 'sustainable clothing' and 'good clothing'.
  iv. To explore a variety of public attitudes to sustainability and to behavioural changes that might address issues of economic, environmental and social sustainability.

In the detailed research design (outlined in Chapter 2) these broad objectives were related to a set of specific consumer behaviour goals. In the Defra report 'Framework for Pro-environmental Behaviours' a set of behaviour goals are detailed focussing mainly on energy, waste, water and food. Taking the

key principle of identifying a range of behaviour goals which are critical in reducing the climate impact of clothes and accessible to people, Defra identified a set of clothing behaviour goals which were a focus for this research to help understand what may motivate people towards these actions and where barriers exist. The behaviour goals are:

- Repair or adapt clothing to prolong its life, and return/recycle it at the end of its life/when you no longer want it
- Wash clothes at 30°C and use eco-friendly cleaning technologies
- Line dry clothes whenever possible and when using dryers reduce the drying time and separate synthetic and natural fibres
- Buy clothing that is sustainable

1.2   Research context

This brief overview sets out current academic thinking on the challenge of ameliorating the sustainability impacts of clothing. A more detailed review can be seen at Appendix A.

Concern with issues of sustainability and clothing has been evident in public discourse for some years (BBC 2008a, 2008b) and industry has responded to this through interventions by small scale 'niche' producers and, latterly, efforts by some larger producers to supply more sustainable products. This concern has extended to the fashion industry and has led to the subject being taken up in education and academic research. The relationship of clothing to self-identity and social display makes it of particular interest in the study of consumption in general and shopping in particular, as it brings together consumers' attitudes about their relationships to others with practical concerns such as economy and the physical performance of clothes. Given the social and environmental impacts of clothing production, work on ethical consumption has used clothing in case studies, suggesting that, with some variation by age-group, price, quality and fashion influence clothing purchase more than ethics (e.g. Carrigan and Atalla 2001).

Against this background, a significant body of literature has emerged related to consumer decision making in shopping (e.g. Woodroffe-Burton et al 1998, 2001). For example, several studies (e.g. Rawwas and Singhapakdi 1998, Kim et al 1999, Carrigan, Szmigin and Wright 2004, Iwanov et al 2005, Joergens 2006, Mintel 2008) have identified that ethical considerations in clothes purchasing are outweighed by issues of identity and practicality.

The study of the association between clothing and individual and social identity has also generated an extensive literature that suggests relationships between ways of dressing and gender identity, sub-cultural identity and cultural stereotypes (e.g. Davis 1992, Kaiser 2003, Entwistle 2003, Woodward 2007). Latterly, this literature has moved beyond the semiotic analysis of dress to approaches such as Woodward's that emphasise its materiality, embedded in everyday practices. This puts into perspective the strong influence of fashion on dressing habits and suggests that the desire to look fashionable is only one of several concerns, balanced by influences from individuals' biographies, family relationships and habits.

There is some literature on everyday behaviour with clothes that is relevant to the sustainability of clothing use, particularly laundry and the life-span of

clothes (e.g. van den Hoed, 1997, Vezzoli 1998, Shove 2002, 2003, Mont and Plepys 2003, Cooper 2003). Several studies have investigated consumers' practices of storage, laundry and maintenance (e.g. Banim and Guy 2001, Gregson and Beale 2004, Woodward 2005, Blanchard 2007, Fletcher 2008) and identified the degree to which habits are configured around expectations of standards of cleanliness as well as the hardware available for laundry and other practices. Similarly, while there is a good deal of literature that describes the consequences of the disposal of clothes from the point of view of the waste and recycling and reuse sectors (e.g. Oakdene Hollins 2006), only one recent study focuses on the consequences for sustainability of consumers' views of clothing disposal and reflects on the relative lack of knowledge and understanding that exists about this subject among consumers (Birtwistle and Moore 2007).

The research reported here confirms this relative lack of knowledge and understanding. However, Birtwistle and Moore's conclusion that correcting inappropriate disposal behaviour, or other unsustainable behaviour, is largely a matter of providing such information is challenged by a body of literature that raises doubts about the provision of information as the most effective way of bringing about behaviour change (see for example Darnton's 2008 Review of Behaviour Change Models). Studies of socio-technical systems (e.g. Shove 2004) suggest that 'normal' behaviour is shaped by habits, social norms and physical 'systems of provision' as well as through consumers' powers of rational action. Other studies also identify the significant role that individuals' situations, their sense of responsibility for problems and practical issues have as barriers to behaviour change (Carrigan and Atalla 2001, Kollmuss and Agyeman 2002).

1.3   Report contents

This report comprises a section on methodology (Chapter 2) followed by four sections which present the findings from each phase of the research (Chapters 3, 4, 5 and 6). Where variation between participants from different environmental behaviour segments was apparent in the data this is identified in the text. Where no mention is made of segmentation no such variations were evident.

Chapter 3 comprises analysis of the early sections of the Phase One focus group discussions *before* participants were made aware that the main underlying issue for discussion was sustainability. This data captured participants' actual behaviour without prompting them to consider the consequences for sustainability. The chapter covers participants' acquisition habits including their aspirations and motivations for clothes, their use of clothes and clothes maintenance (i.e. cleaning and repairing), and their means of disposing of clothes.

Chapter 4 extends this analysis to examine participants' initial understanding of the concept of 'sustainable clothing' and their responses to the information prompts and clothing samples that highlighted sustainability impacts associated with clothing.

Chapter 5 comprises an analysis of the diary task and wardrobe audit.

Chapter 6 sets the preceding chapters in the context of participants'

reflections on the subject matter in the deliberative workshops, during which policy proposals were developed for promoting consumer behaviour change. It also outlines the response of industry stakeholders to the initial results.

Chapter 7 presents the conclusions drawn from the findings and proposes recommendations for policy and other stakeholders as well as further research.

Extensive annexes to the report provide the technical details supporting the methods and analysis used.

2   Methodology

This chapter describes the methodological approach adopted for the research and outlines the data gathering techniques used and the approach taken to the data analysis. Data were gathered through:

- Nine focus groups (n=99).

- A diary task and wardrobe audit (n=29).

- Three deliberative workshops (n=29).

The initial findings were presented to an Industry Panel in the process of analysis clarify where there are similarities or differences between this and stakeholders' commercial research.

The sequence of methods used, the participant recruitment technique adopted and the analysis of the data in terms of the Defra's Environmental Segmentation Model[2] (2008) are described below (section 2.2). The effect of the research process on the participants and their stated readiness to change their behaviour is noted. A full description of the methodology and the data gathering process, including the topic guides and information provided to participants, is set out in Appendices A,B,C, D and E.

2.1   Overview

The qualitative approach to data gathering and analysis outlined in the project specification was followed through in a series of steps which built on each other.

The early part of the research process gauged participants' views on clothing in general and 'good' clothing in particular before they were aware of the focus of the research on sustainability. Participants were then given information about the sustainability impacts of clothing and asked to reflect on their everyday habits in the light of this information over a period of days before reporting back to the researchers in a deliberative workshop.

This sequence facilitated moving beyond gathering information about participants' present views and actions towards an understanding of how those views might change in response to information and public discussion, and how everyday habits and behaviours might subsequently change.

2.2   Methods

The data gathering methods had three phases, which ran alongside a review of literature and were followed by an Industry Panel. The sequence is illustrated in Figure 1.

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[2] See http://www.defra.gov.uk/evidence/social/behaviour/index.htm for the Pro-Environmental Behaviours Framework Report detailing the Defra segmentation model.
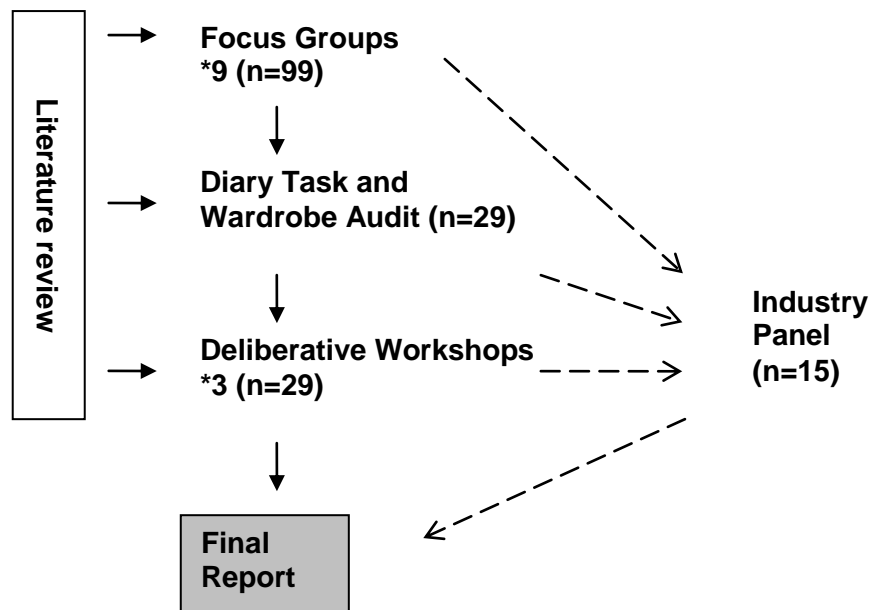
Figure 1 – Illustration of methodology.

Review of literature

This review was not designed to be exhaustive but to set the data gathering and analysis in the context of current research and commercial activity. The process of literature searching and review continued through the first half of the project. The literature review focused on work in sociology, marketing and business studies that informs understanding of systems of provision and consumer choice, particularly the everyday habits and routines in which clothing acquisition, use and disposal take place.

Phase 1: Focus Groups

This phase of the data gathering consisted of 9 focus groups with 99 participants in three locations in Nottingham, St Albans and Manchester. The groups were recruited without making participants aware that the key underlying theme was sustainability in order to elicit the attitudes, assumptions, aspirations and expectations, with regard to the acquisition, maintenance and disposal of clothes, which they brought to the exercise. Such an approach was required to gauge participants' pre-existing orientations to the concept of sustainability in relation to clothing. (See Appendix C for the topic guide used for the focus groups.)

Phase 2: Diary Task and Wardrobe Audit

29 participants from the focus groups (approximately 10 from each location) were recruited to take part in further stages in the research. This consisted of a home task that involved writing a diary of their clothing practices and a reflection on a selection of three garments from their wardrobe (one used for leisure, one for work and one for special occasions). (See Appendix D.2 for

the home pack used in this phase.)

Phase 3: Deliberative Workshops

The final phase of data gathering consisted of three follow-up deliberative workshops with the Phase 2 participants, who reconvened in groups to discuss the information gained in Phase 1, their thoughts on clothing acquisition, maintenance and disposal in the light of this information and their views on appropriate actions to tackle the issues raised. The discussions took place initially in three groups, the composition of which was based on the Defra's Environmental Segmentation Model, followed by a plenary session. (See Appendix E for the topic guide and resources used in this phase.)

Recruitment for Phases 1-3

Participants were recruited in Nottingham, St Albans and Manchester using on-street interviewers following a recruitment schedule. (See Appendix B.2 for the screening questionnaire). Participants were informed only that the research was about clothes and shopping, not that it would cover sustainability issues, in order to make it possible to gauge their 'naïve' views on the subject. This screening survey ensured an even spread of age, gender and SEG, recruiting as closely as possible to Defra's segmentation model. It also ensured that the sample was not biased towards people with strong views on sustainability issues. (See Appendix B.1 for a description of the Defra model).

The breakdown of participants per segment for the focus groups is shown below in Figure 2. (See Appendix A for a breakdown of participant information by location).

Segment	S1	S2	S3	S4	S5	S6	S7
n=	13	11	19	12	17	14	13
Age	18-25	26-45	46-65				
n=	26	45	28				
Gender	M	F					
n=	57	42					n= 99

Figure 2: Participants by segment, age and gender (all locations)

Industry Panel

Finally, fifteen representatives from across the clothing industry were invited to hear and respond to the preliminary findings of the research in order to compare them, especially participants' level of knowledge and understanding of the issues and proposals for achieving behaviour change, against their expert understanding of the industry and their own consumer research. The delegates, who were identified through Defra's Clothing Roadmap Stakeholder Group, represented and were divided into three groups (Design / Fashion; Retail / Use; Reuse / Recycling / Disposal). (See Appendix F for a list of participating organisations)

2.3 Review of methods

The research process adopted made it possible to explore some of the key factors that are at work in the attitudes and behaviours relevant to clothing and its sustainability impacts. The results indicate relationships between some of these categories, for instance the relationship between information and behaviour, and between some attitudes and behaviours and the participants' environmental segment. It should be noted that the relationships indicated by this research process are not quantified (or quantifiable), but point towards further studies which could use the categories revealed to determine their frequency and distribution.

The results of focus groups do not lend themselves to precise generalisation, though it is safe to assume that it reveals views that exist in the population at large. Some of the inflections to behaviour that are evident in this data, such as attitudes to different clothing types by segment, may benefit from further exploration through quantitative survey techniques.

The make-up of the groups was diverse in terms of age, gender and SEG, as well as attitudes to environmental issues, which lessened any tendency for participants to conform to prevailing views on topics or to express socially desirable views (Crane 1999). Similarly, the phasing of the methods, with the focus of the research on sustainability disclosed only after discussion that revealed details of current attitudes and behaviour, meant that the findings from the early sections of the focus groups were reliable.

The home packs, completed by 29 participants, constituted reports on behaviour and deliberation that built upon and complemented the focus group data. Although the number of packs completed was small, they did clearly show that the information introduced in the Phase 1 focus groups affected the participants' behaviour and attitudes. Of particular note is the degree to which participants' accounts showed that they thought through how they accommodated this information in their everyday routines.

The participants' contributions to the deliberative workshops (Phase 3) were influenced by their experience of the home task activity (Phase 2). This was evident in participants' notes and in summaries made in the concluding plenary sessions at the workshops. The nature of the sessions, which led to a summary and analysis of group discussions, made the final data analysis a straightforward matter of transcribing and comparing the results of the three workshops.

3 Focus Groups: Attitudes and Behaviour towards Clothing

Summary of views prior to discussion of sustainable clothing

Acquisition

- Determinants of 'good' clothes include fashion, price, quality and longevity.

- Classic clothes associated with an enduring style and good quality are purchased deliberately for particular occasions or purposes.

- Clothing that is well made and intended to last tends to be associated with quality rather than sustainability.

- Consumers judge the quality of clothing by the brand of retailer or manufacturer and also by the 'feel' of items, particularly the strength of seams.

- Consumers are generally aware of fashion but make considered judgements about the extent to which fashion trends and designer labels should influence their purchasing decisions.

- The 'newness' of clothing is for many people an important motivation for purchasing clothes.

- Many people, particularly in younger age groups, purchase cheap, fashionable clothing from low budget retailers, fully aware that it will not last long in a reasonable condition.

- The activity of shopping represents an important source of information for specific clothing purchasing decisions.

Use

- People are aware of the environmental benefits of washing at reduced temperatures and line drying clothes but are often constrained by their washing machine programme options, physical space and the weather.

- There is a reluctance to reduce the frequency with which clothes are washed because of the attraction of 'fresh' clothes and a fear of odour.

- A range of factors influence how clothes are dried, including the smell and feel (softness) of dried clothes, the 'wear', and the internal and external environments (i.e. home space and weather).

- People are aware of the cost of tumble drying, in economic terms more than energy terms, and many use line drying whenever possible.

- Repair work to clothing is no longer undertaken as a normal, regular activity due to a perceived lack of personal skill and the relative cheapness of new clothes.

- The cost of professional repair and alterations services is widely considered to be prohibitive.

- A significant amount of product life extension takes place in the form of dyeing, the reuse of clothing for 'downgraded' tasks or fancy dress, and

the reuse of materials as rags or dusters.

Disposal

- Clothes are often disposed of on a cyclical basis by 'having a clear out' either periodically or in response to life changes.

- Many people give used clothes to charity, but only those which are deemed to be fit to be sold for reuse; there is little awareness of recycling fabrics.

- Charity shops and doorstep collections are often seen as the most convenient ways to dispose of unwanted clothes, rather than selling them; when such reuse is inconvenient, clothes are more liable to be thrown away.

- Cheap clothes are more likely to be discarded in the bin than given to charity, but expensive 'branded' products are considered durable and therefore suitable for charity.

- Cheap clothes are likely to be thrown away after a short period as they are perceived as inherently lacking in durability, but there is less evidence that fashion affects the length of use.

- Clothes are occasionally swapped between adults, mostly between family members and with females, while children's clothes are frequently 'passed on'.

- Unwanted clothes are rarely sold due to a negative perception of the value realised compared with the effort involved, but there are signs of an emerging market on eBay.

- There was evidence of participants in Segments 1-3 displaying a greater desire to recycle and reuse, but no substantial behavioural difference between segments.

3.1 Introduction

The focus group discussions comprised two distinct parts: (i) discussions prior to participants being aware that the main interest of the project related to sustainability ('pre-awareness') and (ii) discussions after information was provided about sustainability and sustainable clothing ('post-awareness'). This chapter sets out the views of participants *before* they were made aware that the theme of the research was sustainability. (See Appendix C.1 for the focus group guide).

3.2 Acquisition

3.2.1 Good clothing

People acquire clothes for many different reasons. At the outset of the focus group discussion participants were asked about their views on 'good' clothing. They were then invited to discuss the influences upon their purchasing and the circumstances in which they made purchases.

Participants applied a range of criteria in considering their understanding of what represents 'good clothing', including fashion, price and quality, and

highlighted the need to distinguish different types of clothing. For example, the longevity of a high quality garment was seen as an example of what is considered by many as 'good'. Significantly, this was discussed in the context of value rather than sustainability. This statement, by a participant from Segment 3 (Concerned Consumer), demonstrates different factors in play[3]:

> *"I like things to last, but I have had a couple of items where I'd bought them specifically because it was in fashion and I was going out to a nice 'do' or something, and I've only wore it once or twice. And then you think because it's been a bit 'designer' at the time it was more money than what you really wanted to pay, but you had to have it because you were going somewhere posh. But then other times you want something because you wear it constantly and you're washing it constantly; you do want it to last." (S3:99:F)*

The participant chose to spend a lot on the first item, which she knows she will not wear often, because her desire to feel right on a special occasion overrode any financial consideration. Her subsequent comment on her desire for clothing that wears well refers to 'everyday' clothes, to which another set of criteria apply.

Several participants suggested that they shopped for quality and were willing to pay accordingly. There was a strong sense that prices generally reflect the intrinsic quality of products.

> *"Buy cheap, get cheap." (S1:36:F)*

> *"I have my favourite places to shop. And again, it's on quality. One of my big ones at the moment is* [retail chain]*, just because I like that style, I like that shop (...) They're not the cheapest, £35 for an average top, but they do wash nice and they look really nice. So I tend to go back quite often." (S3:91:F)*

> *"Good material, good cut (...) I wouldn't go to* [budget retailer] *(...) I just don't think any of the stuff lasts very long. I know it's really cheap, but I'd rather pay a little bit more and have something that lasts a bit longer." (S4:37:F)*

Different ways of evaluating quality were evident. Some participants associated quality with brand names (of shops or designers), while others indicated that they evaluated the quality of clothes by feeling them. While some evidently understood differences between fabrics ('natural' and 'artificial', for instance), with a few exceptions this knowledge seemed to be quite superficial and not to influence purchasing choices.

High street shops were associated with clothing of different levels of quality, as shown by a participant from Segment 1 (Positive Greens) who contrasted the 'reliable' clothes from one retailer with the 'throw away fashion' of another. Notably, a participant from Segment 7 (Honestly Disengaged) was fully aware of the level of quality to expect from discount retailers:

> *"Shops that are a bit more expensive (...) you consider to be more*

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[3] It is possible to see patterns that related to the segmentation model in the participants' statements about some topics. Only in these cases are the segments of the participants reported in the analysis. If no segment-related patterns are reported it can be assumed that no patterns were identified.

> *reliable. I'm thinking, like, my daughter shops in* [budget retailer] *because she's quite happy to throw away fashion. I would rather go somewhere like* [traditional retail chain] *- I sound like my mother - where it's probably likely to be slightly (...) more reliable, the fabric's perhaps going to be better quality, and washing: it'll wash better. But again, obviously, money comes into that (...) If you weren't thinking about money then you'd probably go to* [high quality department store]*."* (S1:22:F)

> *"From* [budget retailer]*, when you buy it today, when you wash it out, you have to go again to buy another one.   "* (S7:6:F)

Designer brands were generally associated with good quality, although there were indications that a designer cachet was part of a rationalisation for the higher price, identified as the 'originality' and 'distinctiveness' provided through a relatively small production run. The comments of participants who doubted the value of a designer label were countered by others who suggested that purchasers were paying for intrinsic quality as well as the 'name'. Discussion amongst participants considered the difference in views around paying extra just for a name and the intrinsic quality associated with the item:

> *"I do think the majority of designer clothes are of good quality, although obviously you do pay for the label as well (...) They tend to be more distinctive (...), more original and (...) less mass produced (...) If they weren't a higher quality, people wouldn't continue buying them and even though you pay more for them, and some people believe that it is just the label, you don't tend to find that things of a named brand end up ripping in the wash or threading or losing their colour or anything. They tend to be of a higher quality and I think that's what you pay for, as well as the name."* (S2:7:F)

3.2.2 Price and value

The discussions confirmed that clothing purchase decisions are rationalised in terms of price and perceived value. Some consumers evidently identify clear principles in their rationalisations of the value of clothing. This participant explained that she expected to get at least one 'wearing' for each pound spent on an item:

> *"You think: is this going to be a dress that I've spent £50 on and I'm only going to wear it once, so it's cost me £50 for that? Or is it going to be a dress that I've spent £50 on and I'm going to wear 100 times? And that's the little equation (that) often goes through my head when I decide about something."* S1:22:F

While this is a particularly well worked out rationalisation of price and value, comments from other participants demonstrated that their behaviour is governed by equivalent, if less quantified, 'rules of thumb'. Some participants linked type of clothing and style (i.e. 'fashionable' cf. 'classic') and indicated that they would spend more on classic items that would be expected to last longer, both aesthetically and functionally, than fashionable items. An example was a participant who bought in this way because of financial constraints:

> *"Last year I splurged £120 - which is a lot of money for me - and I bought, from* [department store] *in Brent Cross, a raincoat which was warm. It's kind of shiny on the outside and it has a fur-lined hood. The lady in the shop said to me 'I will see you in ten years.' And it's been in my wardrobe and I can't tell you how many times I've worn it (...) I thought it was well worth spending a £120 - it's classic. You can wear it with anything." S1:61:F*

Financial constraints may produce an opposite rationalisation of value for money. This participant had apparently considered prices in relation to the life span of items and concluded that buying a succession of cheap items may represent good value:

> *"If you just want a plain T-shirt and you're going to an expensive shop - and it's exactly the same as what you would get in* [budget retailer] *(...) you just think (...) if you buy ten of them for the same price as one, then surely (they) would last longer." S6:8:F*

3.2.3 Fashion, purpose and longevity

Much discussion focussed on fashion. There appears to be a complex set of relationships between purchase motivations that relate to fashion, brand and the longevity of clothes, although one without any clear link to environmental segments. The relationships between the cost of clothes, their purpose, fashion and their longevity (and, specifically, participants' understanding of this cluster of categories) have direct implications for the potential to lessen the sustainability impacts of clothing.

Participants indicated an awareness of fashion but the significance of this in their purchasing was linked to the desired longevity of clothing and, specifically, differences in types of clothing (e.g. shirts, jeans, skirts), categories of clothing (e.g. underwear, outerwear) and purposes (e.g. 'everyday' or 'going out'). A desire for clothes designed for longevity was evident in comments about buying 'classic' clothes for a special occasion (e.g. a wedding or party), of a certain type (i.e. trousers rather than tops) or for a particular purpose (e.g. office work). These 'classic' purchases, which include jeans, were differentiated from other types of purchases of clothes by the fact that items were expected to last and people were willing to pay more and chose specific retailers:

> *"If you go out and spend good money on an item you'd probably expect it to last a few more seasons than if you go to* [budget retailer] *or* [fashion retail chain] *and buy a few T-shirts or stuff (which) you know (...) won't last that long. If you get a classic item, an evening dress, a good pair of jeans (it should last)." S3:75:F*

The relationship between cost and anticipated longevity was clear in relation to 'fast fashion'. Frequent references to purchases from a particular budget retailer suggested that certain types of clothes (e.g. tops) and clothes purchased for particular situations (e.g. holidays) are, in effect, classed as 'disposable'. A participant exemplified this by saying that she bought sixteen tops from a budget retailer for a fortnight's holiday and threw them away after using them. This was a common theme amongst participants:

> *'Throwaway clothes', isn't it? It's sort of a fast turnover of fashion. You feel like once a month you can go (and) spend £30 a month You've got that month's trends, or whatever, and then it doesn't matter. You don't feel bad if you then chuck it all away and then go out and do it next month."* S3:38:F

> *"Cheaper shops:* [budget retailer]*, places like that. It's great for a two week holiday. Get suntan lotion all over it, and then I just sort of bin it before I come away."* S4:35:F

This attitude towards cheap clothes was voiced by participants from all segments. Such behaviour is only made possible by the very low cost of certain types of casual clothing. However, some of the motivation for treating clothes as disposable aligns with the life stage of consumers; for example younger people may be more responsive to short term trends in fashion:

> *"(When) I was 23, 24 (...) I was wanting to change my clothes every year, every season, the next year's fashion. So why would I want to pay more (...) for my clothes to last longer?"* S5:46:M

Fashion evidently remains a very significant driver for clothing acquisition, although participants did not feel compelled to pay high prices or choose designer labels. Many participants indicated that they were motivated by a desire to be fashionable and several of the younger participants expressed themselves as keen on cheap fast fashion:

> *"I'm a regular (at)* [budget retailer] *and quite happy to admit it (...) I'm a bit like Coleen McLoughlin. I'm a high street girl and (...) with all the money in the world if I liked something in* [fashion retail chain] *or in one of the high street shops then I'm still going to go for it. Just because it's got 'Gucci' or 'Armani' on, it doesn't mean that I'm going to go out and run to the shops."* S2:53:F

Not all the participants felt at ease with purchasing short-lived or fashionable clothes. A guilt-ridden recognition of the contribution of such behaviour to the problem of waste is suggested by the disavowal implied in the phrase 'I just sort of bin it' in the quotation above.

Participants from all segments reported buying cheap clothes and being influenced by fashion to varying degrees at different stages of their lives. There was little evidence of environmental concern moderating this behaviour, though there was a sense of weary resignation to fashion trends ('all that nonsense'). It would be wrong to assume that all consumers are 'dupes' of the fashion system. People appear tactical in their clothing acquisition in ways that give them some creative ownership of the process of shopping for cheaper fashion items.

3.2.4 Information and choice

Focussing unduly on the spectacular nature of 'fast fashion' might obscure other, possibly widespread and powerful, motivations. Participants described a variety of channels of information, formal and informal, used in the process of acquiring clothes, including friends' opinions, television programmes, magazines and the process of shopping itself.

For many participants, the activity of clothes shopping was not necessarily purposeful. It was 'shopping around' rather than a pre-meditated and planned activity. This suggests that the process of acquiring clothes may offer a potent setting for providing information about clothing:

> "A lot of the time you walk past the shop and you think, oh, I like that top. And you'll be searching around the shop (...) and then you'll see another nice thing and you'll be, like, oh, I like that as well. And then (you) try everything else on (...), not just the one that you went in for. And probably the one that you went in for, it doesn't fit very well, you don't like it, but you'll always end up buying something else because of it." S6:8:F

This encapsulates the shop as a source of information about clothes that are available. The admission that the item that attracted the participant to the shop was probably inappropriate demonstrates the fluid, opportunistic nature of clothes shopping. Participants told of using television programmes, the Internet and magazines as sources of ideas for their clothes, with some mentioning the role of celebrities as role models, although their ideas were sometimes modified in the process of shopping. Others feel resistant to fashion guidance in magazines and other media and in shops. This participant disliked what she saw as growing pressure from the media about fashion:

> "I hate all this pressure from these clothes shows and magazines and 'This is the latest (...)' I suppose it was always like that, but it seems so much more pressurised these days (...) It has completely the opposite effect on me. If I think somebody's trying to coerce me into something, I think, well, no. It's like when you walk into a shop and somebody's there saying, 'Can we help you? (...) I like to browse and make up my own mind and then if I need help I'll ask for it." S2:15:F

Participants described this independent, explorative shopping for clothes as a form of leisure, providing fun or even excitement. This demonstrates the playful nature of fashion and the role it plays in contemporary self-identity.

> "If it was a special occasion and if I just wanted something new, then I'd go out and go shopping in my lunch hour and I'd walk round. But I might not have anything in mind in particular to go and buy; I'd just walk round and see what I liked." S5:65:F

> "(It) doesn't mean I can wear and get away with the styles, or look great in them, but I love looking at (...) stuff; looking is more exciting." S3:85:F

For many types of clothes, considerations other than fashion (e.g. price, fit, function and purpose) are significant and are appraised during the process of shopping. For some consumers, notably in older age groups, it is the 'newness' of purchased clothes that is significant. To be able to afford new clothes is itself significant for some; negative comments were voiced about memories of 'hand me down' clothes during childhood. Expectations have been raised and some participants expressed a feeling that they 'deserved' new clothes. Self-image, a perceived need to keep up a public 'face', is another factor:

> "I think a lot of it is: you work hard, you pay the taxman and if you've

got the money to spend on clothes, you're going to buy new." S5:92:F

"In summertime I do tend to buy [clothes for] *the boys when we're going on holiday. It doesn't matter how many clothes they've got (...) They have suitcases of new clothes just to go on holiday, just in case your suitcase falls open (and) everyone thinks you're scruffy." S3:91:F*

In the first stage of the focus groups, before their attention was directed to sustainability issues, participants only rarely hinted at any knowledge of environmental or social impacts of clothing and some doubted whether they would change their behaviour if better informed:

"I think that we've been made so aware of things like recycling (...) you make yourself more aware of what you're doing. Whereas something to do with clothes, you're just not (aware), really. You don't know about it, so you don't know that you're doing anything wrong." S2:7:F

"You can sit here all night and say, well, some people are in sweatshops, some people use animals - but does it make any difference tomorrow to you about what you buy?" S7:71:F

In summary, participants revealed that while the media, in its various forms, provides information that influences clothes shopping decisions, this type of information may form the backdrop for other influences that are closer to the activity of shopping itself, browsing and 'playful' shopping. The influence of both is mediated through people's need to preserve a sense of an appropriately independent self-identity.

3.3 Use

3.3.1 Laundry

Discussions relating to the laundering of clothes suggested a largely pragmatic approach. There was an awareness of the benefits of washing at lower temperatures among some participants, although several commented that they did not have a low temperature programme on their washing machines. Many participants expressed a preference for line drying clothes, some of them referring to the cost of using a tumble dryer. Other participants preferred using tumble driers as they were constrained by a lack of space in the home and many referred to unfavourable weather conditions, particularly in winter. There was evidence of many participants separating clothes prior to washing into 'whites' and 'coloureds', but less knowledge about potential cost savings from separating cotton and synthetic clothing in tumble dryers.

Washing temperature and frequency

Several participants said that the temperature they used to wash clothes was linked to the reason for cleaning them. Clothes with visible dirt or an odour were washed at a higher temperature than those that had been worn but were not visibly dirty. Some participants were able to make personal judgements about appropriate washing temperatures from the information provided on labels, for example by treating the temperature indications as a maximum :

"On the label it will say wash at 40°, but that means it's the maximum temperature, so you can wash it at 30° and it'll still be clean." S6:8:F

> *"I used to always wash (...) (at) 60 (...) I think the new washing machine's set at 30 or 40 - can't remember - and it looks the same."* S3:99:F

> *"The boys wear the sports socks, the white ones, and I've got to admit nothing gets them clean unless they go on 90."* S3:91:F

Several participants mentioned sports or work clothes as examples of a type of item that requires a higher temperature wash because they are visibly dirty or have an odour. By contrast, other clothes, such as jumpers and items used for a short period, were said to require 'freshening up' for which lower temperature washing was acceptable. This understanding of the relationship between types of dirt and appropriate laundry treatments led participants to distinguish between clothes needing a full wash and ones needing only a 'rinse':

> *"I presume that if (...) you've only worn it for a few hours and it isn't very dirty it's going to work even if you put it on (30˚) - isn't it? - because all you want to do is freshen your clothes up."* S3:42:F

There was a recognition of how laundry habits have changed over time. Some participants suggested that people change their clothes more frequently than in the past and therefore no longer needed 'aggressive' washing regimes as clothes were washed very frequently. Opinions were divided as to the need to wash clothes each time they are worn, perhaps for a short time. This participant indicated that she does not always wash clothes each time they are used in order to preserve the quality of the fabric:

> *"I've friends that wash everything. When they take it off at night, every single thing goes in the linen basket (...) I don't do that. I think (...) it takes the 'oomph' out (...) You can air it; you can hang it up and wear it again."* S3:42:F

However, another participant, asked what he thought of the idea of hanging clothes to freshen them rather than washing them, replied robustly:

> *"Not bleeding likely. No, when I wear it - unless it's a suit, of course, or something like that - shirts, underwear, jumpers go in the wash every day."* S5:46:M

This was a typical attitude. Considerable resistance was voiced to the idea of reducing the frequency of washing clothes, though several participants reported strategies to get the most out of an item before washing it, such as wearing an already used item while playing sport:

> "(*I*) wear it once and put it in the wash, unless I was going to do some sport (...) (and was) going to get hot." S4:48:M

People's rationale for their washing routines often drew from standards of cleanliness, relating to sweat and skin contact, rather than environmental considerations. However, there was some evidence that the attitudes implied by the segmentation model play out in clothes washing. Two participants in Segment 3 (Concerned Consumers) demonstrated an awareness of the environmental impacts of laundry at this stage of the focus group (i.e. before participants were directed towards sustainability issues). Both were concerned about waste of various kinds and one suggested that ironing could revive

some items:

> *"Clothes don't always need washing straightaway and it (reducing frequency) saves on the water and energy and the planet and everything. And I don't feel that a jumper, maybe, would need washing straightaway."* S3:42:F

> *"I think it's just wasteful (...) If it's not dirty and doesn't smell, just re-iron it."* S3:38:F

Such tactics to avoid wasteful activities can only be applied to certain garments. Participants expressed the need to wash underclothes more frequently than other clothing items that touch the skin. Clothing worn 'close to the body' appears only to indicate items that come into contact with parts of the body that produce odour, such as the armpits and crutch. It appears acceptable to wash other items that touch the skin, such as jeans, less frequently as long as they have not picked up visible dirt:

> *"Some bits you can and some bits you can't. The stuff close to your body is one, you know; I go to work, wash, take that off* [and wash it]*."* S3:40:M

> *"I don't think you need to do that (wash after every use) with jeans because they're meant to be hard wearing, aren't they? (...) You could wear them for a week really if you didn't get them filthy."* S5:39:F

Tumble drying and line drying

Participants described routines for drying clothes in which they weighed up factors such as the smell of dried clothes, the 'wear', the feel (i.e. softness) and the cost. A common approach was to dry clothes outside where possible to save money and make them smell fresh. Environmental concerns are also relevant to some people, and there was some evidence that this coincides with segmentation: a participant in Segment 3 (Concerned Consumers) hinted at line drying as a moral good, albeit one subject to compromise for practical reasons:

> *"You feel better that you think you've - this sounds a bit stupid - not just washed it and stuck it in the tumble dryer; that you've actually made an effort to put it outside. If it's still a bit damp then you can put it in the tumble dryer."* S3:99:F

Most participants who owned a tumble dryer reported doing so for convenience. Tumble dryers are seen as particularly desirable for small items, presumably because they are numerous and more awkward to hang, and towels. There was also evidence that tumble dryers function to keep the house tidy, being a convenient place to keep newly washed items out of sight:

> *"We never used to have a tumble dryer. We always used to do it on the line or on the heaters. But now we've got a tumble dryer it's just great (...) and it's so much easier."* S2:31:M

> *"I do towels for softness, but I also do sorts of things like the smaller items (...) the socks, the pants and vests, and things like that (...) You can do the washing and get it cleared and put away, rather than it hanging around."* S3:18:F

Several discussions addressed how participants deliberated over the significance of outdoor conditions for the method of drying adopted. The division between 'small' clothes and others is also in play here:

> *"If it's warm enough outside to line dry, then it goes on the line. But if it's damp and wet and you've got a lot of washing, some of it - the underwear, socks and pants and vests - they'll go in the tumble dryer and the big things will go on the clothes horse." S5:3:F*

Concern about the cost of using tumble dryers evidently influences behaviour and many participants reported using radiators to dry bulkier items such as jeans. However, some referred to the threat of excessive moisture in the indoor environment as justification for using a tumble dryer:

> *"In the winter I will use our tumble dryer and then in the summer and spring, we use the line. We used to use a radiator until we got patches of damp in the house, so we had to stop doing that." S6:8:F*

The effect of using a tumble dryer on the condition and life span of clothing was also raised. The shrinking effect on cotton was noted by several participants. Some saw it as a potential problem while others saw benefits in terms of 'fit':

> *"Out of choice I would rather have a dry day, out on the line, because the clothes actually last longer than if you're tumble drying them all the time - they just either shrink or just don't last as long." S1:21:F*

> *"*[Using the tumble dryer] *tightens your jeans up so they're nice and tight." S3:91:F*

Some participants, notably from Segments 1 and 3 (Positive Greens, Concerned Consumers), described quite complex habits to minimise use of tumble dryers, which may have a basis in environmental concern but also serve to reduce energy costs. These included using the tumble dryer just to start the process of drying, or to finish the drying process off:

> *"If you don't dry them absolutely (...) you've not used as much energy." S3:29:M*

> *"I like to finish things off in the tumble dryer. So they'll be dry on the line, then (...) if you put them in the tumble dryer for about ten minutes, you probably won't have to iron it (...) I always think, well, I'm saving the electricity from the ironing." S1:22:F*

While most references to tumble dryers identified cost as the primary issue rather than energy consumption, there was clearly some awareness of the environmental impacts, even among participants in Segment 6 (Stalled Starters):

> *"(My) partner will come home and he's like 'It's on again' (...) He's like 'Our kid's got to grow up in this world, what are you doing, it's disgusting - never mind the electricity and everything else!' He's like 'Can't you just hang them outside to dry?" S3:75:F*

> *"I think that's a waste of energy to put the small things in the tumble dryer. Just chuck them on a radiator." S6:16:F*

Many participants spoke of sorting clothes before tumble drying by separating cottons from synthetics or removing clothes mid-cycle. The typical motive was to protect items that might be damaged by the dryer rather than to minimise energy consumption. For some participants such behaviour was based on a bad experience:

> *"Pretty much whatever's in the wash goes in the dryer unless (...) there's a woolly jumper there. You have to take it out and not stick it in the dryer, because obviously it might shrink." S2:7:F*

> *"She put a T-shirt in the dryer the other week and it had that (...) metallic silvery writing on, you know, that shiny stuff like foil or something. And she put it in the dryer and she didn't turn it inside out and it went (...) proper worn." S7:28:M*

The rationale for separating cottons and synthetics in the dryer as a way of reducing energy consumption was acceptable to some participants but may not be enough to change habits:

> *"Certain clothes do take a lot longer to dry, so if you put cottons in as one bulk drying, that's going to take less time than actually mixing all fibres together (...) Obviously some clothes are thicker than the others, so if you're throwing it all in, one piece of clothing's going to be dry before the others - but you tend to leave it all in together until it's dry." S4:35:F*

3.3.2 Repair

Participants were asked whether repairs were ever undertaken to worn or damaged clothing. There was little evidence of repair work being undertaken as a normal, regular activity, and most involved minor tasks such as sewing on buttons and fixing hems. The key influences upon clothing repair appear to be household skills, the attraction of new and relatively cheap clothes, the price of repair compared to new clothes and the availability of repair services:

> *"You tend to buy clothes and not to keep them so long as years ago. You used to buy something, you'd keep it for five years and then if it needed a repair you'd do something to it, but these days (...) clothes are cheaper and you get fed up with them." S3:42:F*

> *"If the original clothing cost quite a lot and in comparison the repair wasn't too much, you wouldn't mind. If the repair was expensive and it may be possibly a few pounds more to go and buy a new one, you would go and buy a new one." S3:99:F*

Many participants indicated that they did not personally have the necessary skills to repair clothes. A few mentioned that their household lacked a sewing machine and there were also references to the time involved. Several participants said that any repairs to clothing undertaken in their household were done by parents or grandparents. There were references to a general decline in repair skills and a change in culture, as well as comments that younger people are no longer taught repair skills in schools:

> *"I used to use (my sewing machine) when I was younger (...) for my daughters. I used to use it for making all my clothes and other people's.*

But my daughters don't think the same way; they'd rather go out and buy them because clothes are so much cheaper these days." S5:3:F

"I think it's an age thing, because my daughter - I was horrified - her son's (my grandson's) trousers, the hem came down and she threw them out and got him another pair." S2:15:F

Nonetheless some participants reported a habit of repairing and altering clothes, particularly those to which they sensed an emotional attachment:

"I repair anything and everything (...) I always seem to get holes under my armpits so I always sew them up (...) I always sew buttons back on. I know quite a few people who probably just think, oh, it's a good excuse to chuck it out and buy something else. But I'll also buy clothes which, if they don't quite fit me (...) I'll alter." S3:38:F

"[I'd only repair] if it was something that I really, really liked and I was trying to save it (...) or something one-off that you feel is like an investment." S5:44:F

"If you walk past something and you snag it, if it's a really nice suit and you've only had it a few months, you don't just throw it away, you try and get it repaired." S1:49:M

Participants expressed concern about wearing items below a certain level of quality. In addition to repair work there were examples of participants undertaking other types of clothing maintenance, such as removing 'bobbles'. In general, repair work was expected to maintain the quality of the original garment, which might explain why an individual with only moderate skills might be disinclined to attempt repair work. Some participants associated repairs with poverty or old age and indicated that they would want to avoid clothes with visible repairs in order to protect themselves and their families from stigma:

"Jumpers tend to go bobbly after a while, so I've done the thing with the electric shaver where you take the bobbles off, just to give it another couple of months." S2:97:M

"If it looks like it's (...) been repaired, then it's not really been repaired." S2:31:M

Participants had mixed reactions to professional repair services, which some would use for more difficult repair tasks:

"For more complicated repairs (...) I've got a local shop where there's just one woman running the shop and it actually is very cheap and you can get really good, cheap repairs, but that's because she's running her own business." S1:76:F

"What to look out for is when you go to the dry cleaners and they repair stuff. You will get ripped off and they will charge you a fiver a zip, seven quid a zip, because they send it out: they're like a middle person, so to speak. If you go to an alteration specialist in their own shop, you get it a bit cheaper." S7:83:M

3.3.3 Product life extension

Participants in all segments spoke of 're-purposing' clothing: using clothes for fancy dress, downgrading their use to decorating or gardening, or employing the cloth as cleaning rags or dusters. Some were employed in jobs that require clothing for which functionality is more important than aesthetics, such as a builder and a childminder whose work is 'hard' on clothes. In the latter case, the participant specified that certain items are relegated to 'work clothes' when they no longer 'feel special', again pointing to the importance of self-identity:

> *"I go to put it on (...) and I think, it doesn't feel special anymore. So then it just evolves into a shirt that I wear under a little cardy and skirt in the day (...) I'm more likely to do it with (...) something that I've spent more on (...) I'm a childminder, so you can imagine how much rubbish I have down me by the end of my day. I have to really not care about it by the time that it goes into (the bin)." S4:59:F*

This example highlights the significance of self-identity. As long as the garment is of a certain quality the woman evaluates it on the basis of what she feels about it in the context of what she is wearing it for. There is a sense that this re-purposing 'redeems' the guilt felt for finally consigning the fabric to the bin.

Participants were asked if they had ever dyed clothes which had faded, or altered clothes and reused the fabric for something else. A small number had dyed clothes such as trousers, tops and T-shirts, with mixed results:

> *"A pair of black trousers - I dread to think how old they are now. They are at least four years old and I like the fit in them; I think I look good in them. They fade, so every now and again I put them in the washing machine with black dye and they come out looking lovely again and as good as new." S1:21:F*

> *"I have done it several times and it's always gone horribly wrong (...) It's got to be cotton, really, to dye. And then your thread will be manmade fibres and you end up with black trousers, or whatever it is, with a different colour." S1:22:F*

Other practices extend the life of clothing but are liable to be marginal in their effect on sustainability. A participant's reference to 'things for the kids' summons the idea of clothes re-used for play. Some clothes, probably not the kind used for everyday wear and perhaps sourced from charity shops, have an extended life as 'fancy dress':

> *"Well, if I won't wear it because it's that tatty and I think somebody else wouldn't want to wear it, then it's either used for cleaning purposes or the bin or things for the kids." S1:21:F*

> *"I either take clothes to charity shops or I turn it into a fancy dress outfit (...) I've never just chucked something in the bin unless it's ruined (...) because I feel like it can be used somewhere else. I go to charity shops to make fancy dress outfits, because you can get a decent pair of trousers that I can then just cut up and do what I want to do with it." S4:26:F*

3.4 Disposal

3.4.1 Motives for disposal

Condition

The wearing out of clothes was only one among many reasons for disposal. Throwing away worn out clothes was, for some participants, an emotional experience:

> *"Sometimes it's hard to do that* [discard a worn out item] *because you particularly like it and you like wearing it; it's painful doing it." S6:16:F*

Respondents referred to jumpers or woollens 'going bobbly', collars on shirts becoming frayed, material 'going shiny' or fading, and items becoming stained, going out of shape or stretched. A distinction was made between clothes being 'worn out' and not looking 'fresh' or new. One participant said that old T-shirts become 'unhygienic'. The types of clothes considered most likely to wear out were those which received 'heavy' use, such as specialist clothing used for sports or work, children's clothes, or (as noted earlier) cheaper clothes which lose their shape easily:

> *"You buy the black T-shirts from* [budget retailer]*, they fade and they look old and tatty and you think, oh well, they only cost £3 each, you might as well just throw them." S6:57:F*

Some participants observed that modern clothes are inherently durable; at worst they begin to look 'a bit tired':

> *"I very rarely find that I've got clothes that actually have worn out (...) I'm tired of them or they look a bit tired to me." S4:37:F*

Fashion

Although overall there were relatively few statements about disposing of clothes very regularly for reasons of fashion, some participants in Segments 1 and 3 (Positive Greens and Concerned Consumers), who tend to be more environmentally concerned, indicated that they are inclined to keep clothes over several seasons but nonetheless could recall isolated examples of items that became obsolete because of a short-lived style:

> *"I think 'seasonal' doesn't really fit with me (...) I just stick them in a different wardrobe and I bring them out in the summer." S1:67:M*

> *"I suppose (it's) my age now; it's not whether it's gone out of fashion, it's whether I still put it on and go 'yes, I like that, I like what I look like in it.'" S1:21:F*

> *"I bought (...) one of those handkerchief (dresses) (...) I've worn it once (...) It was very, very fashionable for about a few months and that was it." S1:61:F*

> *"You mentioned boob tubes (...) That was really trendy at the time but it's way out of fashion now." S3:91:F*

Some participants in Segments 6 and 7 (Stalled Starters and Honestly Disengaged) appeared to discard clothes relatively frequently, and references to disposal 'after a season' suggest the influence of fashion on the decision to

dispose. The cheapness of some clothes reinforced this effect:

> *"It depends how long you've had stuff. You think, oh, I've had this coat for about a year now, I'll get something different." S7:28:M*

> *"If I feel that it's on it's 'sell by' date, fashion-wise (...) after six months or a year, I just give it to charity." S7:62:M*

> *"I don't get too emotional about clothes after six months." S7:62:M*

> *""They're that cheap, even when the season has ended you can just bin them, can't you, quite a lot of that stuff." S5:92:F*

Participants in Segment 5 (Cautious Participants) appeared to be especially aware of trends in fashion and several participants discussed how fashion changes every two or three months, with one noting the consequence of this influence of the media in encouraging a rapid turnaround of clothes.

> *"Those fashion programmes, they say if you've had something new in your wardrobe longer than six months, throw it away because you won't wear it." S5:65:F*

Age and gender may affect disposal behaviour, with younger women more likely to dispose of or replace clothes for reasons of fashion and older people more likely to repair clothes:

> *"As you get a little bit older you're not quite so much following fashion (...) (When) much younger, you'd probably only have things for a couple of months, so quality wasn't quite so much of an issue. I think as you get older you tend to buy things that you will have for a longer period of time, so you want it to last and look good for that time." S3:18:F*

Fit

Some discussion took place on the need to discard clothes because they no longer fitted after a year or so, perhaps due to a change in weight. In many cases this concerned items bought for a particular season (e.g. summer) or occasion. Some were stored, particularly 'special' clothes (e.g. a prom dress), as a memento . A projected future loss of weight was also used as justification for disposing of clothes.

Some purchasing choices proved unwise, for example clothes that appeared to fit in a shop seemed to fit less well when put on at home for the first time:

> *"I'll go and buy something and try it on and, like, yeah, it fits. And then you come home and you try it on again and (...) you'd be, like, 'Oh, it doesn't fit properly' and 'it looked different in the shop'." S6:8:F*

On this evidence fit is quite subjective. Other participants spoke of fit in terms of weight and body image, reinforcing the idea that fit is emotionally charged because it impinges on identity.

> *"If you wake up in a bad mood, you'd just be, like, oh, I don't want this now, I just want to wear comfortable clothes (...) I'm not going to wear that. And because it gets you angry, you don't want to try it on again, you end up just like not wanting to wear it because you just think it won't fit and you just get mad about it." S6:8:F*

3.4.2 The process of disposal

Sorting, clearouts and storage

Most participants appeared resigned to living in a throwaway culture, but many sought to do their best to minimise their personal impact. Participants from a range of segments spoke about the need to 'recycle' (often subsuming 'reuse' in using the term), and how not doing so could induce feelings of guilt:

> *"If someone wants it (...) you pass it on. Or if no-one does want them, you say, oh, fine, I'll get rid of it then - and just chuck it away or whatever." S6:8:F*

> *"I feel guilty if I've got to throw something in the bin (...) I'd much rather take it to a recycling centre and (...) have it recycled." S2:13:F*

There was reference to the practice of having infrequent 'big clear outs', when unwanted clothes would be taken to the 'dump', or conducting periodic 'spring cleans' of wardrobes, when a 'sort out' would take place and unwanted clothes be disposed of. Many participants discussed how this would be linked to a seasonal review, particularly during the summer prior to holidays, or an anticipated weight loss. There did not appear to be any particular differences by segment:

> *"I do tend to readjust my wardrobes at the seasons (...) winter, autumn, spring (...) and sort of look at it and readjust." S3:75:F*

> *"When the next summer comes around (I) get the summer things out, check if they fit or if I like them (...), and put them in the wardrobe or, the ones you don't like, get rid of them." S5:3:F*

> *"When I clean out all the summer stuff I've got to be ruthless, say I'm not going to wear that next year, I'm going to be thinner next year." S6:57:F*

Sorting clothes was also promoted by 'life changes', or when certain items were seen as part of the self that was no longer identified with. This seemed particularly to be the case for participants in Segments 1 and 3 (Positive Greens and Concerned Consumers):

> *"I recently changed careers and I used to wear a lot more business suits at one point and I don't wear them so much now in the job I do now. So I did get rid of a lot of formal jackets and skirts and trousers (...) I don't really wear them (...) in my social life (...) I wouldn't go out in a formal jacket and skirt and things. So I got rid of a lot of clothing that way, just because my lifestyle's changed." S3:18:F*

> *"We've just recently moved house and I actually really went to town and sorted through my wardrobe and thought, be honest with yourself, are you ever going to wear this again? No, you're not, are you? And it went to a charity shop." S1:22:F*

> *"Since Christmas I've been doing a life review and, basically, everything that I thought was part of (my) past life, that's what I want it to be. So I've actually got rid of a load of stuff, some of it's going on eBay and things like that." S3:29:M*

Sorting did not necessarily lead to disposal. Clothes could be stored for a time and then later rediscovered:

> "I usually like to keep my clothes, so I'll have one set of clothes for one month, and then for the next you'll put it up in the loft. And then you'll bring them back down and people go 'Oh, have you got a new top?' And you'll just be, like, 'No, no, I've had it for ages'." S6:8:F

Some participants had items 'in the drawer' that still had their sales labels attached, perhaps suggesting that unworn but unsatisfactory clothes might be stored, whereas those which had been worn infrequently would be disposed of. Others acknowledged that used items which are no longer worn tended to be kept for long periods either because they have been forgotten about or because they may be 're-purposed':

> "I don't really think there is any defining moment (...) Say you've got an old coat and you just hang it up and you don't think about it. And then a few months to a year down the line you (think), oh, yeah, I haven't worn that for ages. And I do, I've got coats in my wardrobe and jackets, hoodies and stuff that I know I haven't worn for ages. But I don't really think about throwing them away." S7:28:M

> "I've got plastic boxes I bought and I think maybe I'm going to wear them [the stored clothes] for work. It's like this top: I've had it about ten years and I just wear it for work. I've got three or four - I think they're 5 litre boxes. I don't even know what's in them, to be quite honest. I put them in there years ago, but I just don't want to throw them out because I know I like them because I put them in there so I want to keep them forever." S7:63:M

Donating to charity

Most participants claimed that they disposed of their unwanted clothing by donating them to charity through charity shops, recycling bins at supermarkets or doorstep bag collections. One participant said that unwanted clothes used to go to jumble sales and that these did not seem to take place any more. There seemed a general perception that items in poor condition, 'personal' items such as swimming costumes, socks, tights and undergarments and perhaps those which were originally very cheap should be put in a rubbish bin. This reflects a lack of understanding of the need that charities such as the Salvation Army have for garments such as underwear for distribution to the homeless and in the third world. Participants in Segments 1 and 3 (Positive Greens and Concerned Consumers) appeared least likely to 'bin' clothes and, less predictably, those in Segment 6 (Stalled Starters) also showed a preference for recycling.

As might be expected, participants in Segments 1, 2 and 3 (Positive Greens, Waste Watchers, Concerned Consumers) made many references to donating unwanted clothes to charity. They referred to the ease of disposing of clothes in this way, their desire to avoid putting clothes into rubbish bins, and incentives such as the Oxfam / Marks & Spencer Clothes Exchange programme.[4] However, participants from all segments referred to donating

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[4] This allows customers who donate clothes bought from Marks & Spencer to Oxfam to receive a

clothes to charity, although for those in Segments 5, 6 and 7 (Cautious Participants, Stalled Starters and Honestly Disengaged) this appeared often to be driven by convenience (i.e. doorstep collections) or supporting local school collections. The charitable nature of outlets for unwanted clothes was seen as an incentive and could actually prompt people to have a 'clear out':

> *"The charity shop's the easiest way to get rid of it really. Because you've got so much other rubbish, so you'd rather not fill up your bin with all these clothes which could have gone somewhere else."* S1:32:M

> *"My daughter's school do it, I think, about once a year, and it's called Back to School. You just throw all your old clothes in and then a lorry comes and collects it and they get so much per kilo or whatever towards the school funds. So I tend to store it up for that now."* S6:88:F

> *"When they come round and they say it's for children with leukaemia you think (...) I will make the extra effort to go through my wardrobe and see what I don't need."* S2:53:F

There was a commonly held belief that only clothes fit to be resold could be donated to charity; there was little awareness that a charity might make decisions about whether or not an item was fit to be reused and could still make use of items unfit for sale. Participants spoke about their need for more information on how best to dispose of 'useless' items. Their awareness of clothing recycling, as distinct from reuse, appeared poor due to a lack of information about how or where recycling can be done. Some suggested that a clothes collection bin to complement household recycling bins would be useful:

> *"It depends on the state of it (...) Presumably they filter through them when they get them in the shop and put it in the bin themselves if it's no use."* S6:69:M

> *"Nobody says bring your old clothes back so we can recycle them, there's no adverts."* S5:46:M

> *"I do eBay, car boot, the tank at the supermarket and the charity shop, according to what it's like, but I really want to find where to put the things that are rag-style stuff."* S1:76:F

Disposal in bins

Participants in Segment 7 (Honestly Disengaged) spoke almost exclusively of binning clothes, at the extreme, speaking about the 'joy' of throwing clothes in the bin in such a way that there seemed a therapeutic aspect to it that could not be obtained from recycling. This joy in binning was not shared by participants in Segment 2 (Waste Watchers), who indicated that they feel guilty binning clothes and would reuse them for dusters.

> *"Oh, I love it. Throw it, if it's ready for the bin - proper bin, not recycling. It's good riddance, you know? You sort of feel yourself physically throwing it."* S7:20:F

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voucher worth £5 to use with their next purchase of clothes (and certain other products) at Marks & Spencer.

"I'd much rather take it to a recycling centre and, say, take it and have it recycled, than just put it in a dustbin." S2:13:F

Where understanding of the clothing waste stream did exist, for example, the use of discarded clothing fabric for rags or stuffing, participants could use this as an effective rationale for not binning clothes:

"I generally would recycle. I mean, even take (it) to charity shops, even if it's not good enough to go in a charity. I know from people who've worked there they actually have a way of getting rid of those items. They have a rag man that comes round (...) I'd rather know that it's probably going to some good use rather than just bin it." S3:18:F

Selling clothes

Selling clothes was a less frequent occurrence. Relatively few participants indicated that they sold unwanted clothes. Those that did appeared to be predominantly in Segments 4, 5 and 6 (Sideline Supporters, Cautious Participants, Stalled Starters) and used eBay or car boot sales. There was a perception that selling via eBay involved significant effort for little return unless the clothes were the more expensive branded items. This was even the case for clothes which had never been worn. Several participants suggested that selling clothes at car boot sales was at least enjoyable, but others responded that, rather than expending the effort, it was more convenient to give unwanted clothes to charity:

"I've sold a few things but it's more hassle than it's worth with clothes because you get next to nothing (...) It's actually primarily my wife's stuff because she wears her stuff a lot less than me. She'll have a load of stuff in her wardrobe that she's never worn and wants to bin. So I try - or have tried - to sell them on eBay (but) give up and take them to charity because you only get a couple of quid no matter how good things are." S5:60:M

Sharing / swapping clothes

Participants from different segments indicated that they shared or swapped clothes, usually with family members (e.g. brothers, sisters and cousins). Examples included re-purposing clothes by using a father's old T-shirts for nighties or old work clothes for 'dossing' around the house. Swapping with friends appeared to be more prevalent amongst females. Accessories in particular appeared to be items swapped frequently. Although some male participants said that they occasionally shared clothes with friends, this appeared atypical, with factors such as embarrassment coming into play:

"Whatever could be worn again, I would give to charity. And also friends. My friends, we all sometimes swap clothes and this and that (...); in my opinion it's a girlie thing." S4:59:F

"If I was to have a clear out, which I did do a few months ago, I would find the best clothes, the nicest stuff that doesn't fit me, and give it to my younger cousin. It would fit him, so I suppose that's sort of extending the life." S5:43:M

"The only time I'd (borrow) my mate's coat or a jumper is if we was coming back from the pub and going past his house and I was cold (...)

I wouldn't just say, oh, that's nice, I'd like to buy it. It's just not the sort of thing I would do." S*7:94:M*

Children's clothes were often 'passed on' within and between families. Some parents organised informal groups for this purpose:

"We have a little group of us. All the children go to the same school, and we do swaps of clothes there. My daughter's particularly tall, so I get some clothes from older girls (...) I'll pass her uniform, as she grows out of it, to her mates, because they're a lot smaller than she is." S3:18:F

"If you've got a nice dress and you think you'll never wear it again (...) you send it off and (...) you get a choice of another dress that you can pick back." S4:26:F

4 Focus Groups: Prior Understanding, Introduction to 'Sustainable Clothing' and Opportunities for Change

Summary of discussion on sustainable clothing and pro-environmental behaviour change

- Changing the type of clothing purchased is liable to be problematic because of consumers' low level of understanding, the inadequate availability of sustainable clothing and premium prices.

- People are sometimes inclined towards scepticism and distrust the motives of companies offering sustainable clothes and the reliability of environmental and fair trade labels.

- Laundry habits may prove relatively easy to change, in part because of the potential cost savings.

- Some people feel powerless as individuals, although many believe that change is inevitable in the longer term.

- Participants in Segments 1, 3 and 4 appeared most inclined to change their behaviour and those in Segments 6 and 7 most reluctant.

4.1 Introduction

Following the general focus group discussion on clothing acquisition, use and disposal, participants were asked about their understanding of sustainability and introduced to the concept of 'sustainable clothing' through the following statement:

> *"We'd like to clarify what we mean by that word, sustainable, as it is the key area that we will be investigating in the last part of this session. Literally it just means whether or not something - a product or a process - can carry on or be kept going. It is used in relation to the 'rights and wrongs' of clothing in three senses.*
>
> *The most familiar relates to the physical environment – global warming is probably the aspect of sustainability in general that is most often in the news. Often people think environmentally friendly behaviour means recycling, but it is also about the amount of energy we use in everyday life, using up scarce resources and pollution. The other senses of the word are economic sustainability – businesses need to be profitable – and social sustainability – creating strong communities by using people's skills and treating people fairly."*

Participants were invited to address key issues, using information cards and clothing samples, in order to explore how this knowledge might affect their attitudes and future behaviour (See Appendices C.2 and C.3).

4.2 Prior understanding of 'sustainable clothing'

Until the meaning of 'sustainable' clothing practices had been explained there had been no references to organic cotton clothing and just two references to

fair trade clothing in the discussion. Only a small level of knowledge about the sustainability impacts of clothing was demonstrated and many participants could not contribute to these discussions.

Even after a working definition of 'sustainable' was provided the knowledge revealed was shallow and patchy. The most frequent spontaneous references to the sustainability impacts of clothing were to social impacts, mostly around labour conditions (referred to as 'sweatshops' or 'fair trade'), type of fibre (referred to as 'natural' fibre e.g. cotton, hemp or wool) and 'organic' clothes. Across the nine focus groups there were also a small number of references to the polluting effects of clothing production, biodegradable clothes, the carbon footprint of clothes production and maintenance, clothes that could last longer and recycled materials. Responses to questions about the sustainability impacts of clothing seemed to draw on participants' experience of fair trade or organic food, and this appeared to lead some of them to assume that sustainable clothes would, like these items, be premium priced products.

The level of knowledge of sustainability impacts seemed to be relatively even across all segments, although the nature of some comments which revealed participants' knowledge were characteristic of specific segments. Statements on prior knowledge of the sustainability impacts of clothing suggested that participants in Segments 1 and 3 (Positive Greens, Concerned Consumers) were more aware of the social sustainability impacts of clothing and those in Segments 5 and 6 (Cautious Participants, Stalled Starters) tended to think of sustainability in terms of fibre type. Those in Segments 2, 4 and 7 (Waste Watchers, Sideline Supporters, Honestly Disengaged) appeared relatively ill-informed about the issues.

Many of the statements which revealed participants' level of knowledge and understanding suggested a lack of information in the public domain. A participant from Segment 2 responded to the information provided at the focus group about the impact of cotton production with evident concern. Her comment was immediately followed by one which injected a note of realism:

> *"If people knew more they'd be able to make more decisions about things, but we don't know. I mean, that's just awful." S2:15:F*

> *"I think a lot of people tend to ignore those figures, though, because they think it doesn't concern them, so why should they bother?" S6:16:F*

These and other comments indicate that although there is an information deficit, rectifying this alone may have a limited effect on people's behaviour. In the decision making process around clothing purchase, for example, consideration of the sustainability impacts of clothing may be outweighed by aesthetic and financial criteria, as indicated by this participant, discussing a T-shirt made of organic cotton:

> *"When you go into a shop (...) you first look at the designs and then you look at the price. You don't look at where it's made; it's not the first thing that comes into your mind. So when you see it's a plain white (organic) T-shirt, you think, oh, a tenner (...) I wouldn't pay a tenner for that." S6:8:F*

The reliability of information was an issue for some participants, which relates

to a more pervasive scepticism of sustainability claims and the need for action by government or industry that was also expressed. This participant from Segment 4 (Sideline Supporter) wanted information that she could trust:

> *"A label is nothing, it doesn't mean anything (...) you could say (...) anything. We need proof of it." S4:37:F*

4.3 Response to clothing samples and information about impacts

Following this introduction to sustainability and the concept of sustainable clothing, participants were invited to comment on some informative prompt cards and clothing samples to explore their immediate responses to the need for behavioural change and the options available. (See Appendix C.2 and C.3 for copies of the information cards and samples). Some considered laundering in a more sustainable manner, while others were given samples of clothing intended for a reduced sustainability impact. These included clothes made using a more sustainable type of fibre production (i.e. organic cotton, hemp or recycled polyester), made with sustainably produced fibre in the UK using renewable energy, designed and manufactured from reused fabric, and obtainable second hand (i.e. from a charity shop).

4.3.1 Acquisition of more sustainable clothing

Participants' responses to the information cards about different approaches to acquiring sustainable clothing varied mainly according to the features of the clothes rather than by segmentation. Items made from organic cotton, for example, received a different reception to those made from recycled polyester. In response to information about organic cotton production, participants seemed influenced by the existing associations of 'organic' with food and suggested that changes to habits to increase consumption of organic cotton clothing would be a lifestyle choice that would align with other 'alternative' choices.

> *"I personally think it's a bit like going down the road to being vegetarian. I think if you had to go this way, you would have to start buying everything to be guilt free." S5:92:F*

As might be expected, participants appraised the clothing samples in terms of value for money, 'feel' and fit, and some of their responses implied that they doubted the need to consider any other factors. They appreciated the palpable quality of some of the premium products, but the likelihood of them buying such products was moderated by the comparatively high cost.

4.3.2 Laundering

One information card detailed the environmental benefits of washing clothes at a lower temperature. Many participants appeared not to have experimented with this and indicated some openness to this action.

The response to the information about the impacts of laundering largely echoed the discussion that grew spontaneously from participants' earlier accounts of their laundry practices. It revealed that the majority of participants were already aware of recent campaigns to encourage the use of lower temperatures, but that many had not considered the possibility of washing

less frequently.

Participants voiced a range of views on the practicality of washing at lower temperatures. Some who were already doing this suggested that it was satisfactory, particularly when the purpose of washing clothes was merely to freshen them up (cf. section 3.3.1). Other participants voiced doubts about the effectiveness of lower temperatures and some reported problems with stained clothing:

> *"I do mine at 30 and it's fine with me (...) We don't wear clothes that are filthy dirty (...) They only need freshening up, they're not dirty." S4:37:F*

> *"If I put mine on 30 it's not clean, I have to do it again." S2:30:F*

> *"I do, and it doesn't work (...) I have to put it on a high wash and use also the Vanish stuff to get it (the stain) out." S4:35:F*

Participants who had not been washing at low temperature suggested that, having been equipped with information about the sustainability impacts, they would try doing so in future:

> *"I'd probably not go there on my whites but maybe on the darker wash. Maybe any staining wouldn't be so obvious." S1:21:F*

> *"I suppose it's like really sorting out what's really very dirty and what just wants freshening up. So I might give it a go, because I'm probably responsible." S1:22:F*

> *"I'd probably try it but, with whites, soak them in Vanish or something before." S1:25:F*

Some participants noted potential benefits to be gained from separating clothes in future before putting them in a tumble dryer:

> *"There's no point keeping something in the dryer that's already dried going round with all the damp washing for an hour when it's already dry, like, 50 minutes before." S5:39:F*

4.3.3 Reuse, redesign and recycling

Participants' reactions to samples of second hand clothing from a charity shop indicated that most were unenthusiastic about the prospect of buying clothes from such a source. Few made explicitly negative comments about the samples, but participants generally were non-committal or indifferent. This contrasted with their positive views of the second hand market as a place to dispose of clothes. Use of the samples stimulated discussion of the charity shop clothes economy and exposed attitudes to reused clothing. Some participants were positive about charity shops, suggesting that they are worth visiting, depending on their location:

> *"I always go there (*[charity shop]*). I like to have a look to see what they've got because sometimes you can get some designer stuff." S6:57:F*

> *"If you go to some in town, like Chelsea (...) or somewhere around there, you get very good stuff, designer stuff." S1:61:F*

> *"Most styles of clothing can be bought in charity shops. And a lot of the*

time it is usually high quality clothing in those shops as well. It pays to shop around." S2:13:F

"You'd go and you'd think, oh, I don't see any good bargains. But then when I went down to London for the first time, you'll go past a shop and not realise it's a charity shop and go 'Oh, I like that dress', and you'd go in and then realise it's a charity shop. I think it varies in the area that you're in." S6:8:F

Other participants, however, cited the time-involved in visiting charity shops, a stigma attached to them and the unknown origins of second hand clothing as deterrents:

"On a general basis, I don't have time to think, 'Oh, I want to buy something, I'll go and see if there's anything in a charity shop. I'll have a look around when I drop my clothes off' (...) It's not something that I do very often." S2:7:F

"With a lot of people there's still a bit of a stigma attached." S3:1:M

"You want to know where it's come from really, don't you?" S2:64:M

Views on a individually designed 'new' garment made from fabric sourced from charity shops were mixed. Many participants understood the sustainability benefit, but their comments suggested that such products will only attract consumers for whom a high price is justified by value placed on the garment's exclusivity and aesthetic qualities. Erroneous assumptions about the production process and role of charities in the used fabric market appeared to influence attitudes negatively. Such misunderstandings need to be corrected and the availability of such clothes increased, not least to demonstrate their potential attraction, to catalyse changes in attitudes.

A sample of 'board shorts' made from recycled polyester represented another design-led approach to sustainable clothing. Participants were generally favourable to the idea of recycling materials by returning garments to producers. Such a 'closed loop' system seemed to be readily understood, although some participants appeared to assume, wrongly, that this implied a system of leasing or rental, which need not be the case.

There was some misunderstanding about the impact of manufacturing. Participants questioned whether recycling would be cheaper than traditional manufacture, seemingly disregarding the environmental benefits (i.e. water, land and other resources embedded in the fabric), and the precise saving of energy that recycling fibre from clothing fabric would achieve. This suggested that a lack of information might act as a barrier to public acceptance of a recycling system:

"Doesn't it cost them just as much to recycle all this than just to start from scratch?" S3:38:F

"I would probably do it if they actually explained exactly what the benefit was. As in, not saying that you can 'recycle' the shorts, because that doesn't mean that much to me (...) If they want to attract people who want to save energy, for example, it means nothing to say 'Oh, well, we can recycle.' They need to explain exactly what (amount of energy) they're saving." S2:31:M

There was some limited awareness that once clothes are beyond repair the cloth can be recycled and occasional references to the 'rag man'. This knowledge was not by any means universal, however, and the apparently common practice of throwing clothes 'in the bin' if not deemed suitable for second hand shops may be connected to this. There were also doubts shed about the implications of a separate system for collecting clothes for recycling:

> *"You don't really get rid of clothes on a weekly basis. The lorries that go round to collect it all will probably produce more damage to the environment (...) I think it would better if they have banks around, rather than collections." S2:7:F*

4.4   The potential for pro-environmental behaviour change

Certain laundry habits may be relatively easy to change, in part because of the potential cost savings. Changing the type of clothing purchased would appear to be more problematic, however, due to the low level of consumers' understanding, inadequate availability of sustainable clothing and premium prices.

Participants made statements in respect of their perceived likelihood of changing behaviour that might broadly be expected of their segment. Thus those in Segments 1, 3 and 4 (Positive Greens, Concerned Consumers, Sideline Supporters) tended to indicate that they were thinking of making changes, in areas such as the types of clothes purchased, and how clothes were laundered.

> *"Buying something like this, which is completely recyclable, would assuage my guilt about buying things in* [budget retailer]*." S1:61:F*

> *"I'll probably go away and have a look at the way you can source some of the clothing. I must admit, just on day-to-day shopping, I've not come across big ranges of fair trade clothing, so it might make me think, go on the Internet or have a look (for) who stocks them." S3:18:F*

> *"I have a lower thing on my washing machine because it's quite new, so it's at 30 (degrees). But I do a very, very lot of air drying now, where I never used to (...) And now I actually put my tops on a hanger and hook them up on to the fitted furniture and things and leave them overnight and then they're dry in the morning." S4:86:F*

Participants in Segment 7 (Honestly Disengaged) were less clear about taking positive actions in future. The following example points to a lack of knowledge, combined with a lack of concern and willingness to act:

> *"It won't make a difference whether I bought something or not. But then, saying that, I don't really know enough about it anyway. This might sound bad, I don't mean it in a bad way, but it's like I don't really know enough about it to really care about it. Not that I don't care what happens to these people, but you just, I don't really think about it". S7:28:M*

There were no statements by participants in Segments 6 or 7 which indicated that they would change their behaviour and several suggesting that they would *not* change. By contrast, several participants in Segment 1 (Positive

Greens) stated that they would change their behaviour but none stated that they would not.

While the above suggests that future behaviour aligns with what might be expected of individuals at the 'extremes' of the segmentation model, statements by participants from the other Segments, 2 and 5 (Waste Watchers, Cautious Participants), did not indicate a very clear relationship between segment and likely behaviour. Statements by participants in these two segments gave a sense that although they will not change their behaviour, because they feel ill-informed, change would happen in future through a more informed generation. Several suggested that the need to change behaviour might demand intervention by the Government:

> *"It's about people being educated and maybe not so much us, but (...) kids going from school, who grow up on this, will then have a completely different mentality towards this and that will make a drastic change."* S5:43:M

> *"We did (it) before (...) The only reason it's [the environmental agenda] making an impact now is because it's made as a government thing. You have to do it. (...) The people who didn't care now have to do it."* S2:7:F

Participants in these segments, and also Segment 7 (Honestly Disengaged), invoked the 'power of one' argument against changing behaviour:

> *"I don't think me helping would make much of a difference, to be honest. I feel, like, if I do a bit, because everybody's not doing that, I don't think it'd make a huge difference. So it kind of seems, like, what's the point?"* S2:7:F

4.4.1 Knowledge and information

Many comments relating to pro-environmental behaviour indicated that there is a need for reliable information as a prerequisite to bring this about. A lack of knowledge was seen as a clear barrier to changing in clothing purchase behaviour:

> *"Unless you knew that other stuff had an impact on the environment and organic cotton was better for the environment, I don't think you'd think (...) 'I'll have that because that's better for the environment.' You're just not aware that it is, so you're just, like, well, I'll have whatever."* S2:7:F

> *"You talked about fair trade clothing: where is it? If you're talking about consumer power, at least give us the tools to be able to choose, give us the information."* S2:97:M

There were positive statements about the potential for appropriate information to lead to understanding and subsequent changes towards more pro-environmental behaviour, summed up by one participant as 'knowledge is power':

> *"Knowledge is power. You need to learn about these things, be educated about what is happening and how you can change things. If you choose not to do that, that's fair enough. But I can guarantee you*

that if more of that is in the media and we learn more about fair trade and what's happening to these people and pesticides and stuff like that (...) even if one person changes their opinion, that's one person more." S5:43:M

Schooling was suggested as an effective means of raising the general level of knowledge:

"I think the younger generation, like my daughter who's 11, she learns things at school now and she'll come home and she'll recite facts at me, like, did you know doing such and such." S6:45:F

This reference to education led some older participants to suggest that it was less likely that people of their age would change their habits in response to information. As this young participant notes, an emphasis on informing young people appears especially important, as they seem to be have more wasteful clothing habits:

"If they do want changes I think the biggest change has got to be made amongst my age group. And the fact that I'm changing my clothes more often than my parents' age would, that's where the generation needs to be looked at, that's where they kind of need to get their answers from." S2:53:F

4.4.2 Scepticism

The need for more information about the sustainability impacts of clothing interlocks with an apparent distrust in large companies and the possibility that suppliers may treat the sustainability agenda as a marketing ploy ('greenwash').

Many participants expressed a degree of scepticism which signified distrust of the motives of companies and doubts about the truth of their claims concerning sustainable clothing. Some evidently assumed that because companies' interest in sustainability was motivated primarily by profit, their claims made for sustainable clothing were therefore suspect. This distrust also shaded into a more general scepticism concerning global warming and the conditions of workers in the developing world. Thus one young participant identified large profitable companies as the cause of problems and a barrier to thoroughgoing change, while another directly challenged other participants to question the claims made for sustainable clothing:

"You're putting these in the hands of businesses who are making billions off this stuff." S1:32:M

"Can anyone round the table actually get it out of their head that they might not be being told the truth about it?" S3:40:M

Another participant offered a more refined critique, linking the social sustainability of clothing production, in terms of working conditions, with the need of workers for jobs:

"There's the other side of the coin as well. If you got all these mass produced - [budget retailer]'s full of clothes - (and) everyone gets really 'green' overnight and don't go and buy it, what happens to them people in Venezuela that are chained to the table? Are they suddenly sacked

without nothing?" S3:40:M

When questioned on how information campaigns on sustainable clothing might be made effective, some participants mentioned figures who have a positive and principled image in the popular consciousness:

"If you go back to things like Band Aid and so on, you had Bob Geldof there and people trusted him because he spoke from the heart (...) If you had a manufacturer that you could trust with a figure like Bob Geldof - or I suppose Richard Branson as well is another one - then people might start to take note. But at the moment there's a lot of suspicion out there." S2:97:M

5 Diary Task and Wardrobe Audit

Summary of evidence from diaries and wardrobe audit

- Virtually all participants changed their behaviour, most notably in laundering.

- Some participants were extremely reflexive and considered environmental concerns at all stages in the clothing life cycle.

- Many participants showed evidence of behaving in a pro-environmental manner, such as line drying and using charity shops, but did not discuss their motivation in terms of environmental benefit.

- Families, in particular, attempted to balance environmental awareness with being thrifty, practical and caring for all family members.

- Some participants were defensive about how they behaved, while others discussed their impact in terms of 'feeling good' or 'feeling bad' or justified their behaviour with reference to 'need' or 'convenience'.

- Many participants were unaware that organic cotton clothing was produced and sold.

- Participants were more likely to mend clothes on which they had spent a lot of money than cheap, everyday items.

- In the wardrobe audits, participants mainly discussed their clothing items in terms of comfort or appearance.

5.1 Introduction

In this second phase of the research, just under one third of the focus group participants (n=29) undertook and reported on their clothing practices at home (i.e. acquiring, washing, drying, mending or reusing clothing), using a home pack comprising a diary task and a wardrobe audit. (See Appendix D.2 for copies of the material).

Although the number of participants undertaking this task was small and therefore the results cannot be generalised, this activity nonetheless made it possible to

(i) see whether attending the focus groups changed their attitudes and practices

(ii) inspect their reflections upon their behaviour in light of the issues raised and how they felt when they behaved in an environmentally beneficial or detrimental manner

(iii) see whether they needed to justify or explain their behaviour.

The analysis also considered whether sustainability was the motivating factor or merely an advantageous side effect of changed behaviour, and considered other possible behavioural influences, such as having a family.

5.2 Overview

The data from the home packs highlights the complex and often contradictory nature of clothing practices. Very few individuals could be categorised as

acting in the most environmentally advantageous manner across all clothing life cycle stages – acquisition, use and disposal – (or, indeed, in the most detrimental manner).

Some of the reasons for apparent contradictions in practice are discussed below (see section 5.5). Essentially, they highlight the multiplicity of different factors that people take into account in their behaviour. For example, one participant did nineteen washes in the ten days under study, one at 60˚ (which included bibs and underwear), eight at 30˚ and ten at 40˚; she also hand-washed dirty items (e.g. sport kit) prior to machine washing them. Twelve washes were dried on a line or hand maiden, and seven dried both on a line and in a tumble dryer. The frequency of washing was less linked to her environmental attitude than the size of her family. In contrast, frequent laundering by other participants was less predictable, such as one who was only washing his own clothes but still did twelve washes, some with only a couple of items in the machine.

Participants' responses did not always match their segment, and within a particular segment there were differences in behaviour. For example, a participant in Segment 7 (Honestly Disengaged) did four washes, three of them at 30˚, and hand washed two items in the period of the task. All were dried either on a drying rack or outside. She also mended some clothes and donated others to the charity shop. By contrast, another person in the same segment did three washes, one at 60˚ and two at 40˚, and dried all of his clothes in a tumble dryer (although he did give unwanted clothes to a charity shop).

5.3   Reflexivity and change in attitudes

It is often the degree of people's reflexivity, the extent to which they consider the significance of their behaviour in terms of its sustainability impacts, which determines whether they decide to change their behaviour. This reflexivity may result in a re-evaluation of practice when they realise that change may result in less damage or harm.

The degree of reflexivity demonstrated by participants was variable and by no means all of them exhibited changes in their attitudes and behaviour. Some comments focused upon participants' future plans and intended changes in behaviour. The outline of changes in behaviour detailed below is not comprehensive, as in some instances it was uncertain from the diaries whether participants were reporting that their practices changed; less reflexive individuals may not have made comparisons with their previous practices.

Just over one third of the participants provided clear evidence of changed behaviour in laundering during the period. The most common changes described were in wash temperatures (most commonly from 40° to 30°, but also from 90° to 60°), how full the washing machine was (especially if people laundered less frequently) and how they dried their clothing (whether they used a tumble dryer, radiators, or a drying rack). Somewhat fewer participants stated an intention to change their shopping practices; those that did indicated that they would buy less frequently, buy fewer 'fast fashion' items and select organic cotton or fair trade clothing.

There was little to suggest that participants planned to change how they

dispose of clothing. The majority of those who disposed of clothing during the period gave it either to charity shops or to family members or friends. The only participants who threw clothing away ('in the bin') explained that it had holes and was beyond repair; one person added that an item could have been recycled but this was inconvenient.

In some cases, particularly involving participants in Segment 4 (Sideline Supporters) but also 2 and 5 (Waste Watchers, Cautious Participants), the changes appeared quite profound in the sense that the individuals seemed to have been politicised by the process.

The diaries confirmed that changes in attitudes are linked to the degree of reflexivity exercised. Although some participants appeared to consider sustainability more as an afterthought than as a primary concern, others were extremely reflexive and thought about sustainability impacts at all stages, making changes such as deliberately not laundering if it was raining and they could not dry clothes outside, or taking items out of the laundry basket if they could be worn again. In such instances it was apparent that participating in this research had led to a new awareness. For example, when writing about their normal wash temperatures they indicated that they previously just had a 'sense' that clothes needed a high temperature and noted with evident surprise that a lower temperature could wash things adequately. Many reported that they had never looked properly at clothing labels or had not realised that organic cotton existed. The fact that some participants started to question certain activities for the first time suggested that what they learned from being involved in the research had exposed them to issues that previously had not been visible to them.

5.4 Feelings and justifications

Many participants drew attention to how acting in an environmentally positive or negative manner made them feel, though those in Segments 6 and 7 (Stalled Starters, Honestly Disengaged) tended to be less forthcoming. Many also described whether they felt justified in their behaviour, for example in terms of perceived need.

Overall participants did not refer to any feelings elicited by their behaviour relating specifically to its sustainability impacts. Instead, they described how they felt positive when their clothing was clean after laundering, or referred to the appearance of freshly laundered clothing.

Other participants, by contrast, stated that they felt 'good' when they did something to reduce negative sustainability impacts. For example, they were 'pleased' when they bought fair trade clothing items and 'disappointed' at the limited choice available. Others described negative or 'bad' emotions. One felt 'terribly guilty' about her previous lack of awareness and considered this 'selfish' and 'lazy'. Several referred to feelings of guilt and selfishness. In the aftermath of doing a 50° wash and using a tumble dryer, one wrote: 'Will I always make an excuse?' Another described her feelings as 'resigned'.

Whilst some did not express any sense of need to justify their behaviour, others however, responded in a defensive manner, or attempted to justify behaviour which could be construed as negative in terms of their 'need' or 'convenience'. Several justified using high temperature washes on the basis of

need and one indicated that the frequency of laundering was related to hating having dirty clothes 'lying about'. Others justified using a tumble dryer with reference to the size of their home or the weather. One defended use of a tumble dryer on the basis that it is an 'everyday item', suggesting that if some form of behaviour is regarded as a social norm there is no need to justify its continuation. Another described the impact of her actions as small in the context of other types of waste. Other justifications took the form of references to family requirements and, in one case, a personal injury that prevented pegging clothes on washing lines.

5.5 Motivation

The behaviour of a majority of participants appeared to be influenced by an awareness of sustainability impacts, although the extent to which it changed during the task period varied. There were some for whom the environment was a core concern and others for whom it was a factor that affected only certain activities, such as the temperature used in washing clothes. The exact nature of participants' concern varied and was not always clear. Many referred to saving energy, though without mentioning climate change, and a few referred to waste: one participant, for example, linked reusing baby clothes with avoiding landfill.

Some participants did not mention the environment at all in their responses, while a few others indicated that they were aware of sustainability impacts but that these did not really affect how they behaved. Age and living situation, including household size, appeared to exert a significant influence upon behaviour. Young people still living with their family did not indicate that sustainability concerns motivated their behaviour.

Many participants referred to a desire to look good or have a smart appearance as key motivators in clothing acquisition. They mentioned self-image, describing buying new clothes as 'confidence boosters', or to 'boost self-esteem', or as a treat. The choice of new clothes was heavily influenced by a desire for comfort; few participants indicated that their behaviour was motivated by an attraction to fast fashion. One participant admitted that she sold unwanted clothes at car boot sales partly to help others 'get wear and enjoyment out of them' but also 'to make money (...) to buy new clothes.'

A key finding was that participants who expressed concern for the environment drew attention to the need to balance this with other needs. This appeared particularly pressing for those with families who wanted to address sustainability while also seeking to be thrifty and practical and to care for the whole family. Careful balancing was also necessary for several older participants who lived alone, particularly in their need to be thrifty. On the topic of repair, not surprisingly, participants appeared more motivated to mend clothing on which they had spent a lot of money than cheap, everyday items.

Some of the factors that shaped participants' behaviour had unintended, but positive, environmental effects. For example, some were motivated to give items to charity shops because they wanted to help other people and the environmental benefit of reduced waste was a bonus. Similarly, many described how washing at a lower temperature or not using a tumble dryer was motivated by a desire to cut electricity bills and reduce the risk of

damaging items of clothing rather than environmental concern. Further, the effort which many participants evidently made to take care of and maintain clothes was sometimes motivated by a desire to preserve items that they liked, or simply to avoid spending money, rather than concern about waste.

6   Consumer Workshops and Industry Response

Summary

- Behavioural change at the acquisition stage is problematic because sustainable clothes are not readily available in high street retailers and the range is limited.

- People perceive ethical clothing as expensive, although some are prepared to pay a small premium.

- People need to trust claims about sustainability benefits and present concerns about traceability and labelling appear to be barriers to market development.

- People might have confidence in and be inspired by a national campaign to change behaviour led by a respected figurehead.

- Many people lack confidence in their ability to undertake repairs to clothing and contrast this with previous generations.

- Many people show a strong commitment to disposing of clothes to charity, but they are not always well informed about the reuse and recycling sectors.

- More information alone would not necessarily lead to behavioural change and new industry initiatives and government intervention are required.

- An apparent desire among some people to feel 'totally' clean leads them to link washing the body and washing clothes, which suggests a need to relate bathing and laundry habits in addressing behavioural change.

- Concepts of propriety affect the acceptability of second hand clothing to some people, for whom it would be acceptable only if previous wearers were family members or friends.

6.1   Introduction

The aim of the third phase of the research was to enable consumers to discuss their attitudes and behaviour towards sustainable clothing in the light of the information provided in the focus groups and their experience of undertaking the diary tasks and wardrobe audits. Just under one third of the focus group participants, all of whom had undertaken these tasks, attended follow-up workshops (n=29). The key findings from these three workshops, including suggestions for action by government and industry proposed by participants, were then discussed at a seminar for clothing industry stakeholders.

The workshop participants were initially provided with some further information through videos and then invited to recall actions associated with sustainable clothing that had been raised in the focus groups, clustered around acquiring, cleaning, maintaining and disposing of clothes, as shown in Figure 3. The outcome of this session indicated that they had developed a good basic understanding of the key issues. Participants then discussed the

potential for behavioural change in their households at each of three life cycle stages (acquiring, cleaning and maintaining, and disposing of clothes), initially in groups and then in a concluding plenary. (See Appendix E for the Workshop guide).

Wash at 30˚ (separate clothing)	Repair more at home
Wash clothes less often	Use local tailoring / alterations / repair service
Separate out and tumble dry fewer clothes (synthetics)	Alter or reuse the fabric / garment
Line dry more often	
Use launderette	
Cleaning clothes	*Maintaining clothes*
Acquiring clothes	*Disposing of clothes*
Buy fewer clothes (avoid fast fashion); buy for quality (avoid discount stores)	Keep clothes as long as possible
Choose carefully (plan)	Sell, give away or donate unwanted clothes
Buy organic; buy natural (not synthetic?)	Put used clothes in recycling bank
Buy fair trade or locally made clothes	Reduce amount of clothing disposed with
Buy second hand	
Share and swap clothes	

Figure 3: Actions associated with sustainable clothing

6.2 Workshop discussion

6.2.1 Overview

The discussions started in three groups, the composition of which was based on Defra's Environmental Segmentation Model (2008). Participants in group A were from Segments 1, 3 and 4 (high potential to act and willing), those in group B were from Segments 2 and 5 (high potential but unwilling) and those in group C from Segments 6 and 7 (low potential and unwilling). This was followed by a plenary session.

The clearest distinctions between the different groups were at the acquisition stage between participants in group A (high potential to act and willing) and those in groups B or C (high or low potential, but unwilling):

- Group A participants indicated that a premium price for sustainable clothing was acceptable and that they wanted a wider range, whereas only participants in groups B and C raised the prospect of buying a 'bargain' at a budget retailer.

- Fashion was not raised by participants in group A, but was by groups B and C.

- Participants in group A had doubts about the functional quality of second hand clothes, whereas groups B and C were concerned about 'stigma'.

- The cost of professional repairs and tailors was not raised in group A, but was mentioned by groups B and C.

These distinctions appear to be indicative of socio-economic differences between members of the different groups.

The workshop discussions added two particularly significant insights. First, washing the body and washing clothes were linked by an apparent desire to feel 'totally' clean. Participants expressed a distaste for dirt (however slight) transferred from used clothes onto clean skin or equally from an unwashed body onto newly laundered clothes (perhaps because of a sense that it would taint the clothes prematurely). Second, boundaries were evidently drawn in the acceptability of second hand clothing. Wearing clothes that had been used by other people was, for some participants, acceptable only if previous wearers were family members or friends.

6.2.2 Acquiring clothes

Participants in all groups commented on the higher cost of ethical clothing. Participants in group A, however, referred to the acceptability of paying a 'small' premium and, noting that the whole supply chain made extra margins, demonstrated some awareness of the source of the premium. By contrast, participants in both groups B and C highlighted the option of shopping at a budget retailer for 'a bargain'. The response of several participants to a suggestion that a premium of 20% for fair trade clothes might be an option was that this was excessive.

Participants in all groups raised issues around the availability of ethical clothing, including concern that the range of such items was narrow and, in some cases, limited to T-shirts and only available in supermarkets.

The importance of good, trustworthy labelling was highlighted. Participants in group A wanted labels that were regulated, and drew attention to a current lack of information and the need for traceability. By contrast, participants in groups B and C argued that labels could not necessarily be trusted, not least if the items were sold by market traders. The need for a benchmark standard for ethical clothing was suggested on the grounds that people lack time to undertake their own research.

Although fashion was not raised as an issue by participants in group A, those in groups B and C suggested that it influenced them, indicating that fashion was not only relevant to their purchasing preferences but that the frequency of changes in fashion meant that people in different age groups would be less likely to pass on unwanted clothes to each other.

Concerns regarding the purchase of second hand clothing were raised in all groups. Participants in groups B and C referred to the 'stigma' of wearing second hand clothes and raised concerns about the person who might have

worn such clothes previously. Participants in these groups also indicated they might wear clothes worn by people they knew, such as relatives or friends, but 'would not go as far as wearing clothes of friends of friends' or items bought in charity shops. Concern was also expressed that second hand items will have lost their original shape along with the 'feel' and 'status' of new clothing.

There was a general consensus about the importance of increasing information on ethical clothing for consumers. Participants commented on the need to improve people's knowledge and pointed to the potential for informing children through secondary schools. Bad publicity for unethical clothing practices was also considered necessary in order to drive the market in an appropriate direction.

6.2.3 Cleaning and maintaining clothes

Laundry

Participants remarked on habit as a barrier to reducing washing, many suggesting that they tended to wash clothes after a single use (although some reported changing these habits in their diaries). This was associated with a sense of peer pressure to change clothes daily and, in the case of clothing next to skin, a fear of emitting odours. For instance, a participant explicitly linked washing the body and washing clothes, indicating that s/he 'would not put dirty clothes on after a shower or put clean clothes on without showering.' Others considered it necessary to wash clothes after an 'evening social' event.

Participants considered hanging clothes to freshen them, rather than washing them, as was often done with dry clean-only clothes due to expense. On the other hand, the effect of washing on putting clothes back into 'shape', exemplified by a participant who referred to the 'body-hugging' quality of newly washed clothes, was identified as a barrier to changed behaviour.

Common claims about environmental impacts were not necessarily accepted by all participants. Some suggested that using a concentrated detergent may offer little benefit because people might use more, and one was even sceptical of industry's claims about washing at 30˚. Another, while mentioning that hand washing items was too time-consuming, expressed doubts as to whether it was better for the environment.

Participants noted that an advantage of using tumble dryers over line drying was to save time. However, it was also suggested that reducing the use of tumble dryers would lessen damage to clothes and thus the need to replace them so often.

Repair

Participants across all groups said that repair work was undertaken less often than in the past because people lack necessary skills by contrast with previous generations.

The fact that such skills are not taught in schools and people's lack of time and equipment were identified as barriers to repair, along with the expense of a sewing machine that might get little use and the scarcity of haberdashery suppliers. Many participants considered professional repairs expensive and this, combined with the fact that they were not always of good quality, affected

the sector's reputation.

6.2.4 Disposing of clothes

Participants in all groups indicated that they engaged in reuse by giving unwanted clothes to charity shops. Several suggested that a certain minimum level of quality was required and that damaged items were not appropriate for charity shops. One participant reported feeling obliged to wash clothes before giving them to charity shops, while others questioned whether this might offset the environmental benefit from reuse. There was sometimes a lack of confidence that charity bag collections were from reputable organisations and were, in fact, used for commercial gain.

Participants in groups A and B discussed people's need for greater knowledge about clothing reuse and recycling. They felt that people have little understanding of clothes recycling and assume that charity shops are only for reuse, unaware that they may also pass on clothes for recycling.

Some participants were unhappy to discard reusable clothes without receiving a financial return. Several suggested that people should get money for returning used clothes, while others indicated that they try to sell their unwanted clothes. Participants in all groups questioned whether people were adequately motivated to dispose of clothing responsibly and some doubted the feasibility of a 'take back' system on the grounds that many people would lack motivation and transport would be a barrier. Some suggested that reuse should be made easier for households through, for example, the provision of regular used clothing collections from people's homes.

6.2.5 The role for Government and Industry

Participants were invited to explore the underlying system of clothing provision, cleaning, maintenance and disposal by considering the appropriate role for government, industry (manufacturers and retailers) and consumers in encouraging sustainable clothing.

Several participants described the role of government as 'crucial' in order to change the 'system'. Governments were said to 'have the power' to make a difference as they 'are running countries'. Some participants asked why governments allowed 'non-fair trade' clothing to be sold, suggesting an openness to choice editing. Government action was said to be needed in order to set 'a level playing field' as, without it, there would be 'free riders' and some companies would continue to sell cheap unacceptable goods.

Participants revealed different views on the appropriate level of government intervention and the likelihood that increased information would lead to change. Some felt that it was necessary to 'trust people in the end', while others argued that people cannot be trusted to act responsibly and that increased knowledge of the issues would not necessarily lead to increased caring.

Several policy proposals were suggested during the course of the discussions:

- Fair trade clothing items should be made exempt from VAT.

- Partnership with EU countries to introduce a trade embargo on countries engaged in bad practices.

- Media education campaigns, with charities given free air time to discuss sustainable clothing.

- Schools to address the throwaway culture and establish twinning schemes with sweatshops.

Participants also suggested that industry should accept responsibility alongside government. One participant speculated about the potential effect of a market leader with a powerful brand name deciding that all of its clothing would in future be organic and fair trade; another simply proposed that all clothing sold in Britain should be fair trade. The need for industry to provide better labelling on the source of products, such as the origin of cotton, was highlighted and at the other end of the life cycle the introduction of a 'take back' scheme for clothing was proposed. Although discount chains had attracted criticism, several participants thought that they should not be targeted because their customers could least afford to pay the higher prices implied by ethical clothing.

Various approaches to behavioural change began to emerge, including the following:

    i. Access to good services and facilities such as tailors, launderettes and second hand markets *(enable)*

    ii. More information (e.g. media, leaflets, Internet) *(engage)*

    iii.Being inspired by a national campaign *(engage)*

    iv. Having increased trust, arising from a reliable label and a (consistent) goal across the EU *(exemplify)*

    v. An economic incentive to behave differently, such as no VAT on ethical clothing but increased taxation on energy to compensate *(encourage)*.

As indicated above, these draw upon each of the four approaches in the Government's sustainable development strategy, to enable, engage, exemplify and encourage (Defra 2005). Policies to *enable* might include the provision of alternatives (i, above) and information (ii), to *engage* might include campaigns and network activity (iii), to *exemplify* might include consistent goals and reliable labels (iv), and to *encourage* might include economic incentives and penalties (v).

Workshop participants were invited to rank these options according to those most likely to encourage them to change their behaviour. Participants in group A (high potential to act and willing) were inclined to favour option (iv) (increased trust through common goals and reliable labels), while those in group B (high potential but unwilling) tended to favour option (v) (economic incentives). Neither group ranked option (i) (better access to services) highly. There was no clear pattern in group C (low potential and unwilling).[5]

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[5] Reference to Defra's segmentation model would suggest that participants from group A would respond to policies to enable and engage, group B to favour encourage, exemplify and enable and group C to encourage and enable. The small sample, however, does not allow firm conclusions based on group analysis to be drawn from this exercise.

6.3 Industry seminar

6.3.1 Introduction

In the final phase of the project a group of industry stakeholders were invited to hear and respond to the preliminary findings of the research. The function of the event was to test the findings against the participants' expert knowledge and understanding of the issues, some of it gained from their own consumer research. (See Appendix F for the list of participating organisations).

The stakeholders discussed the findings in three groups - Design and Fashion, Retail and Use, and Reuse, Recycling and Disposal - prior to a plenary session. The seminar demonstrated that different aspects of the findings are relevant to the three groups. Each came to the seminar with preoccupations that matched their perspective and therefore responded to different aspects of the findings, to varying extents. These responses are discussed below in connection with particular findings from the research.

6.3.2 Design / Fashion

This group of experts and entrepreneurs in the niche market for sustainable clothing responded to aspects of the results that relate to consumers' clothing choices in respect of different sources of clothes – large and small companies with varying approaches to sustainable clothing. The finding that people buy classic clothes associated with an enduring style and good quality for particular occasions is an example of thoughtful consumer behaviour motivated perhaps by thrift which could be built on to tailor sustainability 'messages' for different consumer types. The group agreed that an effective way to increase sustainability would be to encourage consumers to increase the longevity of their clothing by buying fewer, higher quality, items that have lasting appeal.

The finding that consumers acquire the information that influences their clothing choices from the activity of shopping itself as well as from conventional media was given a particular gloss by this group – sustainability messages do not necessarily need to be 'overt' and obviously readable in the design and marketing of clothes. While some are more motivated by fashion, more mainstream consumers might respond to a sustainability 'message' in appropriate point of sale information and packaging to address the finding that people's level of understanding is generally low. This group responded to the finding that people are sometimes sceptical of the motives of companies offering sustainable clothes and the reliability of environmental and fair trade labels by identifying the potential PR leverage of operating to fair trade standards and using sustainable materials and for smaller, niche companies to act as 'exemplars' to larger companies.

The group responded to the principle of engendering trust in a campaign to change behaviour by being inspired by a national campaign led by a respected figurehead, discussing strategies such as celebrity endorsement of sustainable clothing. However, they noted problematic issues in this for both celebrities and companies. It may not be considered appropriate by some niche businesses, while celebrity individuals' existing tie-ins may be an obstacle, along with a fear of bad PR. There is, in addition, a 'natural'

association between celebrity culture and 'fast fashion' due to media demands of performers for frequent 'costume change'.

The finding that focus group participants were relatively open to government interventions in the clothing market received a mixed response from this group. Some expressed fear that niche businesses would be adversely affected by the differential effects that regulation might have on businesses of different sizes. The point was also made that moves to promote improved labour conditions are possible, with or without a fair trade certification scheme. The group expressed willingness to work with government to disseminate expertise in design and production management.

6.3.3 Retail / Use

This group spent much of the time considering the need for an appropriate and precise definition of sustainability to precede any action reflecting research findings relating to trust and alls for accreditation. This response related to the finding that information that influences consumers' clothing choices comes from the activity of shopping itself - only through such focus would it be possible to develop consistent standards for organic or fair trade clothing which would have integrity and inspire consumer confidence in the market.

These stakeholders responded to the finding that the independence and exploration that is characteristic of clothes shopping is a form of leisure, highlighting the importance of retaining choice for consumers as the most effective means of transforming markets.

6.3.4 Reuse / Recycling / Disposal

Responding to the finding that while clothes are routinely disposed of to charities there is a good deal of ignorance about what then happens to them this group discussed the importance of knowledge, regulation, the organisation of waste collection, and clothing design in facilitating recycling and reuse.

The group agreed that better understanding of the difference between recycling and reuse of clothes is needed – 'recycle' is currently used for both. The group suggested that separate information campaigns were needed for each pathway for discarded clothes to counter public ignorance of the fibres that make up clothes. Responding to the finding that convenience affects people's willingness to recycle clothes the group welcomed opportunities to work with local authorities and Defra on public education and to improve the collection system for clothing. Responding to the finding that trust in systems for recycling is a significant issue for people, the group suggested that regulation or licensing of clothing collections might solve the problem of bogus collections, although this might risk harming small but respectable local charities.

Responding to the finding that people may not be adequately motivated to dispose of clothing responsibly the group recommended an information campaign to reduce stigma against reused clothes and make reuse 'mainstream' and attractive, particularly to teenagers, perhaps by building on their familiarity with book and music media reuse and embracing all suppliers

of clothes through mechanisms including 'take back' schemes.

Responding to the finding that people are relatively open to government intervention in the clothing market, the group discussed the effect of design on the uses of end of life clothing, for instance on the difficulty of recycling mixed fibres. Agreeing that market regulation of the types of fibres used in clothes was a mechanism to address this, the group implied that manufacturers (including ethical companies) should be given a responsibility to use recyclable materials.

7 Conclusions and Recommendations

This research has sought to gauge the degree and nature of the public's understanding of sustainability in relation to clothing. In summary its main conclusions are that:

- The level of awareness of the sustainability impacts of clothing among the general public is low.

- Even among consumers with a positive general orientation to pro-environmental behaviours and some understanding of sustainability impacts, clothing choices most often derive from considerations of identity and economy rather than of sustainability impacts.

- Fashion and cheap clothing influence clothing choices, but have different impacts on consumers depending on their life stage; some participants expressed a weary resignation to fashion trends.

- Consumers acquire the information that influences their clothing choices from the opportunities presented by the activity of shopping itself, as well as from conventional media.

- People may behave in a pro-environmental manner, such as line drying and using charity shops, but this may merely be an advantageous side-effect of their 'normal' routines.

- Although the skills and habits that once led to routine clothing maintenance have declined, the desire to repair clothes that were costly or are especially valued persists.

- Clothes are routinely disposed of to charities, but there is a good deal of ignorance about what then happens to them; the distinctions between textile recycling and clothing reuse are not clearly understood.

- When given information, more reflexive people seem open to changing their behaviour, particularly in respect of information about the energy impacts of laundry and the social impacts of clothing production.

- Scepticism about sustainability impacts and suspicion of attempts to ameliorate them through changed consumption practices is evident among some people.

- There is openness to government interventions in the clothing market, especially in the form of fiscal incentives, initiatives to increase confidence in certification schemes, and choice editing of high impact products.

In this final section these conclusions are related to the research process and analysis and recommendations drawn:

Complexity and contradiction

The findings highlight the complex and often contradictory nature of prevailing clothing practices. Few people act in the most environmentally advantageous manner across all life cycle stages or, indeed, in the most detrimental manner. While some people know which clothing habits are 'good' from a sustainability point of view, they do not necessarily act on this knowledge. Some behaviour

matches the attitudes and beliefs characteristic of the environmental behaviour segment into which they were categorised, but often participants within a segment differed markedly in their behaviour.

The significance of 'sustainable clothing'

Participants in focus group discussions concerning their usual clothing behaviour did not spontaneously use the term 'sustainability', and related issues were mentioned only peripherally. Once the term was defined participants demonstrated knowledge that was largely confined to an awareness that some imported clothing is manufactured in unacceptable working conditions associated with the term 'sweatshops'. Few were familiar with organic or fair trade clothing, although once this was mentioned some basic understanding was evident. Clothing that is well made and intended to last tended to be associated with quality and economic value to its owner rather than sustainability.

> *Recommendation: Improve the public's knowledge of sustainable clothing practices, using the appropriate media.*

Acquisition

The activity of shopping represents an important source of information for specific clothing purchasing decisions and most individuals make considered judgements about the extent to which fashion trends and designer labels should influence their purchasing decisions. The 'newness' of clothing remains an important motivation for purchasing clothes and many, especially the young, purchase cheap, fashionable clothing from discount retailers, fully aware that it will not last long. Individuals purchase a range of types of clothing, however, including classic clothes associated with an enduring style and good quality bought deliberately for particular occasions or purposes. People judge the quality of clothing by the brand of retailer or manufacturer and also by the 'feel' of items, describing favourite items in terms of feeling comfortable or looking good.

> *Recommendation: Integrate information into the retail environment on the sustainability implications of clothing acquisition, use and disposal.*

Use

Participants were aware of the environmental and financial benefits of washing at low temperatures and line drying clothes but were often constrained by their washing machine programme options, physical space or the weather. Many appeared reluctant to reduce the frequency of clothes washing because of the attraction of 'fresh' clothes and a fear of odour. A range of factors influence how clothes are dried, including the resulting smell and feel of the clothes, the 'wear' they undergo in the laundry process, the weather, and the effect of damp washing on the fabric of the house. People are generally aware of the cost of tumble drying, in economic terms more than energy terms, and many use line drying whenever possible.

> *Recommendation: Build on the 'Wash at 30°C' campaign and consumers' desire for economy to promote good habits in tumble-dryer use.*

Repairs to clothing are no longer undertaken as a normal, regular activity due

to a lack of skills and equipment at home and the cost of professional repair and alterations services compared to the price of new clothes. Product life extension takes place in the form of dyeing, the reuse of clothing for 'downgraded' tasks and fancy dress, and the reuse of materials as rags and dusters. Most people evidently lack confidence in their ability to undertake repairs to clothing and many compared this with the skills of the older generation. Participants were more likely to want to mend clothes on which they had spent a lot of money than everyday, cheap items.

> *Recommendation: Encourage clothing skills and awareness for children and adults, including repair, through government departments such as the DCMS and DCSF.*

> *Recommendation: Promote longer life-spans for clothes, for instance by supporting alteration and repair services and targeting population segments that value thrift.*

Disposal

Clothes tend to be disposed of cyclically, either through periodical 'clear outs' or in response to life changes. Most people give used clothes to charity, but only those deemed fit to be sold for reuse. There was little awareness of recycling fabrics and participants were not always well informed about the reuse and recycling sectors. Cheap clothes are more likely to go in the bin than to charity, but more expensive and durable 'branded' products are considered suitable for charity. Charity shop or doorstep collections are often seen as the most convenient ways to dispose of unwanted clothes (rather than selling) and they are otherwise thrown away. Cheap clothes are likely to be thrown away after a relatively short period as they are perceived as inherently less durable, but there is less evidence that fashion in itself has a strong effect on length of use.

> *Recommendation: Work with retailers and local councils to increase people's understanding of the reuse of clothing and recycling of fibre in order to divert textiles from the waste stream.*

Clothes are occasionally swapped, mostly between family members and by females with their friends, and children's clothes are frequently 'passed on'. Unwanted clothes are rarely sold due to a negative perception of the value realised compared with the effort involved, but there are signs of an emerging market on eBay.

> *Recommendation: Develop greater understanding of informal second-hand markets and their potential to promote re-use.*

Changes in behaviour

Laundry habits may prove relatively easy to change, in part because of people's perception of benefits through cost savings. Changing the type of clothing purchased is liable to be more problematic due to the low level of understanding, inadequate availability of sustainable clothing and a perception of premium prices. In general, participants in Segments 1, 3 and 4 (Positive Greens, Concerned Consumers, Sideline Supporters) appear most inclined to change their behaviour and those in Segments 6 and 7 (Stalled Starters and Honestly Disengaged) most reluctant, in line with expectations.

Virtually all who took part in all the latter phases of the research reported changes in their behaviour and awareness levels during the period, most notably in laundering. Some were extremely reflexive and considered environmental concerns at all stages. Many had been unaware of the impact of cotton production and the existence of organic cotton, and some started to question current practices for the first time. Families in particular attempted to balance their new environmental awareness with being thrifty and practical.

Participants had a range of emotional reactions to the challenges to their behaviour that arose from their involvement in the research. Some were defensive about how they acted, while others clearly took some challenges on board and discussed their individual impact in terms of 'feeling good' or 'feeling bad', or justified their actions in terms of 'need' or 'convenience'. Many were already doing environmentally beneficial activities, such as line drying and using charity shops, but did not discuss their motivation in terms of environmental benefit, which suggests that with added information some might extend such beneficial approaches into other behaviours.

Asked about the likelihood of behavioural change, participants commented that sustainable clothes are not readily available in high street retailers and that the range is generally limited. They perceived ethical clothing as expensive, although some were prepared to pay a small premium, and identified a lack of traceability and unreliable labelling as significant barriers to purchase.

> *Recommendation: Develop understanding of the motivations characteristic of each environmental behaviour segment and target sustainable clothing strategies at these motivations.*

Interventions

Some participants had a sense of individual powerlessness, while believing that change would be inevitable in the longer term. A degree of scepticism and distrust was evident around the motives of companies offering sustainable clothes, the premium prices charged, and the reliability of environmental and fair trade labels. While many participants stated that they desired more and trustworthy information, they indicated that this alone would not necessarily lead to behavioural change and that new industry initiatives and some form of government intervention would be necessary. Governments are seen to 'have the power' to make a significant difference and some participants went as far as questioning why they allow 'non-fair trade' clothing to be sold. Overall, a range of views were held concerning the role of government, specifically in connection with consumer power and whether, given adequate information, people could be trusted to act responsibly. Not everyone agreed that increased knowledge would inevitably lead to behavioural change.

> *Recommendation: Explore opportunities to build people's trust, especially between government, industry and NGOs, develop agreed standards and remove clothing with the most significant impacts from the market.*

Several policy proposals emerged from the discussions: that fair trade items should be made exempt from VAT; that EU countries should introduce a trade

embargo on countries engaged in bad practices; that the media should be used to educate people, either through government information campaigns or giving relevant charities free air time. It was also suggested that schools ought to do more to address the throwaway culture.

> *Recommendation: Work with EU partners to explore options to use fiscal measures and trade policies to promote sustainable clothing.*

Participants also felt that industry should accept responsibility. Some saw a need for market leaders to set an example and it was suggested that one of them should adopt a bold strategy of only selling organic and fair trade clothing.

> *Recommendation: Provide better labelling on the source of products, such as the origin of cotton, and explore options to increase recovery of clothing through 'take back' schemes.*

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