

Satisfaction matters: design that learns from users' sensory and emotional responses to clothing

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Abstract

Researchers across disciplines increasingly acknowledge that embracing the multi-sensory character of everyday perception can provide invaluable insights for social and design interventions that aim to improve the experience of products and services. Where fashion design traditionally focuses on the aesthetic, visual side of design, empirical studies prove that the way clothes feel, sound, or smell, is equally important for the way they are experienced and appreciated in everyday use. The aim of this paper is therefore to explore how users' sensory engagement with clothing can inform the creative practice of designers who wish to design for continuity and increased user satisfaction. Satisfaction with a garment often leads to its repeated use and accumulation of pleasurable memories that can both positively influence the active lifetime of the garment. The paper draws on my on-going PhD research and presents initial findings of the second phase of my project (in-progress), which consists of a series of wardrobe studies conducted in participant's homes. The results so far indicate that sensory experiences connected with clothing, although rarely explicitly acknowledged by users, can significantly affect user satisfaction and therefore deserve a greater attention in the context of sustainable design and design for longevity.

Introduction: Design for continuity

Consumption patterns associated with fast fashion often reduce the active lifetime of a garment to less than a season (WRAP, 2013), contributing, on the one hand, to alarming volumes of textile waste (Alwood et al., 2006) and, on the other, to frustration with low-quality garments experienced by consumers (Niinimäki, 2014). At the same time, extensive research evidence shows that people often form deep attachments to clothing which make them want to wear the same piece again and again (Solomon, 1986; Schultz Kleine, Kleine III & Allen, 1995; Klepp, 2010; Skjold, 2014; Fletcher, 2016). This long-term satisfaction with garments considerably contributes to their longevity as it is often connected with care and repair that extends the active lifetime of the cherished piece (Niinimäki, 2013; Niinimäki & Koskinen, 2011).

Fashion design traditionally focuses on the aesthetic, visual side of design, however, empirical studies prove that the way clothes feel, sound, or smell, is equally important for people who wear them (Woodward, 2007; Johnson & Bradley, 2007; Fletcher, 2016). Researchers across disciplines increasingly acknowledge that embracing the multi-sensory character of our perception can provide invaluable insights for social and design interventions that aim to improve the everyday experience of products and services (Pink, 2015). A recent pilot study conducted by Riisberg, Bang, Locher & Moat (2015) was among the first attempts to examine user's tactile reflections on fabrics

and garments as a resource for participatory approaches to fashion and textiles that could open up innovative ways of sustainable design education. The aim of this paper is to explore how multi-sensory perceptions of clothing affect user satisfaction and how these perceptions could inform the creative practice of fashion designers who wish to design longer-lasting garments.

The paper draws on my ongoing practice-based PhD research that investigates how the concept of emotional durability can be applied in fashion design and making. The research process is underpinned by my designer-maker practice and the overarching focus of the enquiry is on the ways in which designers can positively affect user experience of clothing and so create garments with a long-term appeal to their users. The paper presents initial findings of the second phase of my project which is currently in-progress and includes a series of wardrobe studies that employ sensory ethnography and visual ethnographic methods to study user's sensory and emotional responses to clothing.

Context: Sensory and emotional responses to clothing

In his *Emotional Design: Why we love or hate everyday things* (2004) Norman explains that humans process experience on three levels, associated with different levels of the brain. As each of the three levels play a different, yet important, role in our everyday interactions with

the world, Norman argues that each level also requires a different approach to design. The first, *visceral* level of brain, requires design that focuses on appearance – the way things look. The second, *behavioural* level of brain, needs designers to consider the pleasure and effectiveness of use – the way things work and feel. The third and last, *reflective* level, is directed towards self-image and memories associated with the product – in other words, the meaning of things.

Fashion designers, however, are traditionally trained for the magic moment of the first impression. Glamorous fashion photographs present the utopian ideal of owning the garment, presenting it, as Fletcher remarks, “unworn and uncrumpled” (2016, p. 101) – no more than a static object designed for a strong visual impact. In the context of Norman’s three level design, fashion design is directed towards the first, *visceral* level, that focuses on looks. Powerful branding then addresses our self-image and hence the design’s potential appeal on the third, *reflexive* level. What is often omitted in fashion, however, is Norman’s second, *behavioural* level of design, which considers how things work or feel in everyday use.

The significance of everyday experience of clothing, including the way clothes work and feel in daily use, is increasingly recognized by fashion researchers. The ethnographic studies conducted by Woodward (2007), Klepp (2010) or Skjold (2014) unanimously demonstrate that the apparently straightforward visual appeal of a piece of clothing, presented by commercial fashion photography, in fact becomes much more complex in the everyday reality of our lives. For instance, Woodward, who studied women’s decisions on what to wear, points out that the everyday moment in front of the mirror extends far beyond the visual/aesthetic aspects of a garment and has a considerable impact on the extent to which women feel comfortable in their clothing. Comfort, according to Woodward, “emerges in a dialectic between how clothing looks and how it feels” (2007, p. 99). Niinimäki & Koskinen also note that the beauty of clothing includes “tactile, olfactory and kinetic experiences, such as the feeling of comfort, the weight of the material against our body, and pleasant touch and odour” (2011, p. 170).

Research design: Wardrobe studies

The significance of multi-sensory appreciation of the world around us is also reflected in the research of anthropologist Sarah Pink (2005, 2007, 2012, 2015) who demonstrates, on numerous applied projects, that employing sensory perspectives in fieldwork can contribute valuable insights on how everyday products and services are experienced. The research process of my wardrobe studies has been informed by Pink’s work as well as by my own designer-maker practice which has often enabled me to visit clients in their homes to discuss new commissioned pieces in relationship to other garments they own. From a design point of view, these home visits have invariably served as a valuable source of information about each person’s preferences regarding style, fit, colour,

material and also about their general attitudes and views on clothing. In line with observations made by Woodward (2007), Klepp (2010) and Skjold (2014) who conducted in-depth wardrobe studies in participants’ homes, during my home visits of clients I have noticed that the presence of their whole wardrobes and other personal objects often triggered conversations and narratives that would hardly have been possible in a situation removed from the home environment. As Klepp & Bjerck point out, experiences connected to clothing are not always easily verbalized and often assume tacit understanding (2014, p. 374). The opportunity to study pieces of clothing in the home environment can therefore not only help facilitate discussion but also enables researchers to observe and explain daily practices in context – a method that has become widely known through the work of Clifford Geertz (1973) as “thick description”.

As a result, my empirical research, currently in-progress, includes a series of wardrobe studies with female adult participants aged between 25-70 and focuses mainly on clothing owned and used for an extended period of time (3+years). Since establishing rapport between the researcher and each participant is a *sine qua non* for studies that take place in the intimate spaces of participants’ homes, snowball sampling and word of mouth have been identified as the most suitable methods of recruiting participants to this research. To date, the sample has developed organically, using contacts from my designer-maker practice as ‘gatekeepers’ that can engage more participants in the research. This has also influenced the age group contributing to my studies as the clients of my studio are mainly mature women over 25. To attain the richness and depth of “thick description” (Geertz, 1973) within the time limitations of the PhD research, it is anticipated that the total number of studies will be no more than twelve. Five studies have taken place between January 2017 and May 2017.

The initial direction of each wardrobe interview is shaped with questions about the newest and the oldest items in each participant’s wardrobe and the discussion is later led by the participant, with the occasional interjection to ensure that the conversation remains in context. All interviews are audio-recorded and participants’ emotional and sensory responses to clothing are also documented through photography. Special attention is given to capturing the ways in which participants handle their clothing.

Initial findings and discussion: Making sense of satisfaction

Articulating satisfaction

The process of analysis includes verbatim transcription of each conversation and all transcripts are subsequently paired with the visual documentation collected during the interviews. This way of arranging the research material highlights that tactile engagement with clothing invariably accompanies the visual showing. This aligns with Pink’s claim that our engagement with materials is

often quite performative, as people tend to “stroke, feel, smell, visually show and as such engage sensorially” with objects during conversations (Pink, 2015, p. 127). Throughout the wardrobe interviews, such sensorial engagement often precedes any verbal description, other times it goes along with it and, perhaps most importantly, it also helps articulate what may first seem hard to put into words. Figure 1, for example, illustrates a situation in which a participant struggling to describe her difficulties in finding “the perfect pair of trousers” searched through her wardrobe and found a pair which helped demonstrate her experiences with fit. Figure 2 then shows how a deep satisfaction with a piece of clothing becomes explicit through facial expressions as well as through the ways in which a garment is handled by its owner before any verbal comments have been made. These observations indicate that sensory approaches to wardrobe studies contribute useful layers of information on the complex issues of user satisfaction and emotional attachment.

Focus on detail

During the interviews, favourite clothes are touched repeatedly and the participants often accompany their verbal descriptions by stroking the garment and pointing out its most appreciated details – such as interesting buttons, stitching, necklines, linings or belts (see Figure 3). Hidden details sometimes also serve as traces of personal stories connected to the garment and can be reminders of its longevity. This is well illustrated on an example of a dress worn by one of my participants for nearly twenty years. During this time, the dress had become one of the key pieces of her wardrobe. She describes, with a sense of pride, how this long relationship is reflected by a detail only known to her – an inside of a pocket (see Figure 4):

.... but here, what I want to show you on this dress – what is important...is...this...this is what I really like about it... that somewhere you can see...that originally...the original colour almost nowhere...well, in short that the colour is ever so lighter and lighter...you know, here you can see...that the dress used to be dark blue...but not anymore...

Pockets, it appears, are one of the key features of favourite garments and the importance assigned to them is shared by all five participants interviewed to date. If a garment is liked despite their absence, the lack of pockets is often commented on and described as “the only shame” or “the only disadvantage” of that piece of clothing.

The significance of garment details for a pleasurable use has also been recognized by Fletcher during her research for the Local Wisdom project which included nearly 500 participants interviewed about one favourite garment of their choice (2016). The importance of construction details is also highlighted by the *Design for Longevity* report (WRAP, 2013). All this evidence suggests that garment details positively affect user satisfaction and as such offer a rich ground for creative exploration by designers who wish to design garments for long-term use.

Learning through the senses

Participants’ reflections on tactile properties of materials also provide important clues about pleasurable use and the emotional value of a piece of clothing. The hand of fabric, for instance, as well as its feel on the body are often mentioned in connection with favourite garments. Softness and weight of fabrics are repeatedly commented on, as for example in the following description of a top one participant often wears to work in combination with



Figure 1. A participant demonstrating her difficulties in finding “the perfect pair of trousers”. (Photo: author, 2017)



Figure 2. A deep satisfaction with a garment often becomes explicit through facial expressions. (Photo: author, 2017)



Figure 3. A participant shows her favourite details on a jacket. (Photo: author, 2017)



Figure 4. Long-term satisfaction with this dress is demonstrated by the difference between the original colour (now only visible on the inside of the pocket) and the faded colour of the rest of the garment. (Photo: author, 2017)

various jackets: “it’s very comfortable to wear...feel how soft it is...it’s like...not wearing anything” (see Figure 5).

These perceptions of tactile qualities of garments confirm the findings of previous studies such as for example Niinimäki & Koskinen, (2011) or Riisberg et al. (2015). However, it is interesting to note that in contrast to the participants of the study conducted by Riisberg et al. (2015), where participants mainly admitted that their clothing choices were based primarily on visual perceptions of materials, the participants of my studies had a strong preference for tactile qualities of garments. This could potentially indicate shifting preferences in relationship to age as the participants of Riisberg’s et al. (2015) study were high school students aged 18 to 20, while the youngest of my participants has been a woman in her late twenties.

In terms of olfactory perception of clothing, at this stage of the research the collected data does not clearly indicate a connection between olfactory qualities of materials, user satisfaction and emotional value of garments. Mugge, Schoormans & Schifferstein (2005, p.42) suggest that implementing odours in products can stimulate product related memories and hence potentially encourage the emotional bond between the user and the product. The initial findings from my wardrobe studies show that a garment’s ability to resist perspiration and hence stay odour-free for longer seems to encourage more frequent wear for practical reasons - which potentially results in accumulation of memories and associations with the garment. As suggested by Laitaila & Boks (2012) who recommend using naturally anti-bacterial wool fibres that smell fresh for longer, my empirical studies also indicate that considering fabric quality and garment cut with the view to minimize the effects of perspiration, could contribute to the emotional value of a garment.

Sensory fashion designer

Pink proposes that sensory ethnographers should prepare for their fieldwork by an auto-ethnographic exercise which involves them developing an understanding of their own sensory perceptions (2015, p. 60). Despite the preliminary character of my findings, the material collected to date provides additional support for results reported by previous studies that explored sensory engagement with clothing and textiles (Riisberg et al., 2015; Delong, Wu & Park, 2012; Zuo, Hope & Jones, 2014); and so it seems possible to suggest that designers who wish to design for continuity and increased consumer satisfaction could usefully benefit from an auto-ethnographic sensory exercise such as the one Pink recommends to sensory



Figure 5. A participant demonstrating the soft feel of one of her favourite tops. (Photo: author, 2017)

ethnographers. Developing a deeper understanding of their own sensory responses to the clothes they wear could be the first step in shifting the focus of designers from the still prevailing visual perspective, to also considering how style, cut, garment details and materials and fastenings could affect user’s tactile, olfactory or sonic perceptions of garments. As the examples presented in this paper demonstrate, these equally contribute to user experience and satisfaction with clothing and should therefore receive due consideration in the design process.

Summary and next steps

This paper has introduced ways in which sensory experiences connected with clothing can enhance our understanding of clothing in use. Despite the preliminary character of this study, based on five in-depth wardrobe interviews conducted to date, this research indicates that sensory experiences connected with clothing, although rarely explicitly acknowledged by users, can significantly affect user satisfaction and therefore deserve greater attention in the context of sustainable design and design for longevity.

While more research is still needed to fully evaluate how sensory approaches to wardrobe studies can enhance our understanding of user attitudes and experiences with clothing, the initial findings discussed here signal that a shift towards design that adopts the multi-sensory quality of our daily experiences could enable more pleasurable experiences with clothing and increased user satisfaction.

The next steps in the research will include further wardrobe studies to enable comparisons with a greater number of participants. The potential of implementing user’s sensory responses to clothing in the design process will be explored in the parallel practical element of my PhD research. The full findings of this research will be presented in my PhD thesis with expected completion date in the autumn 2018.

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