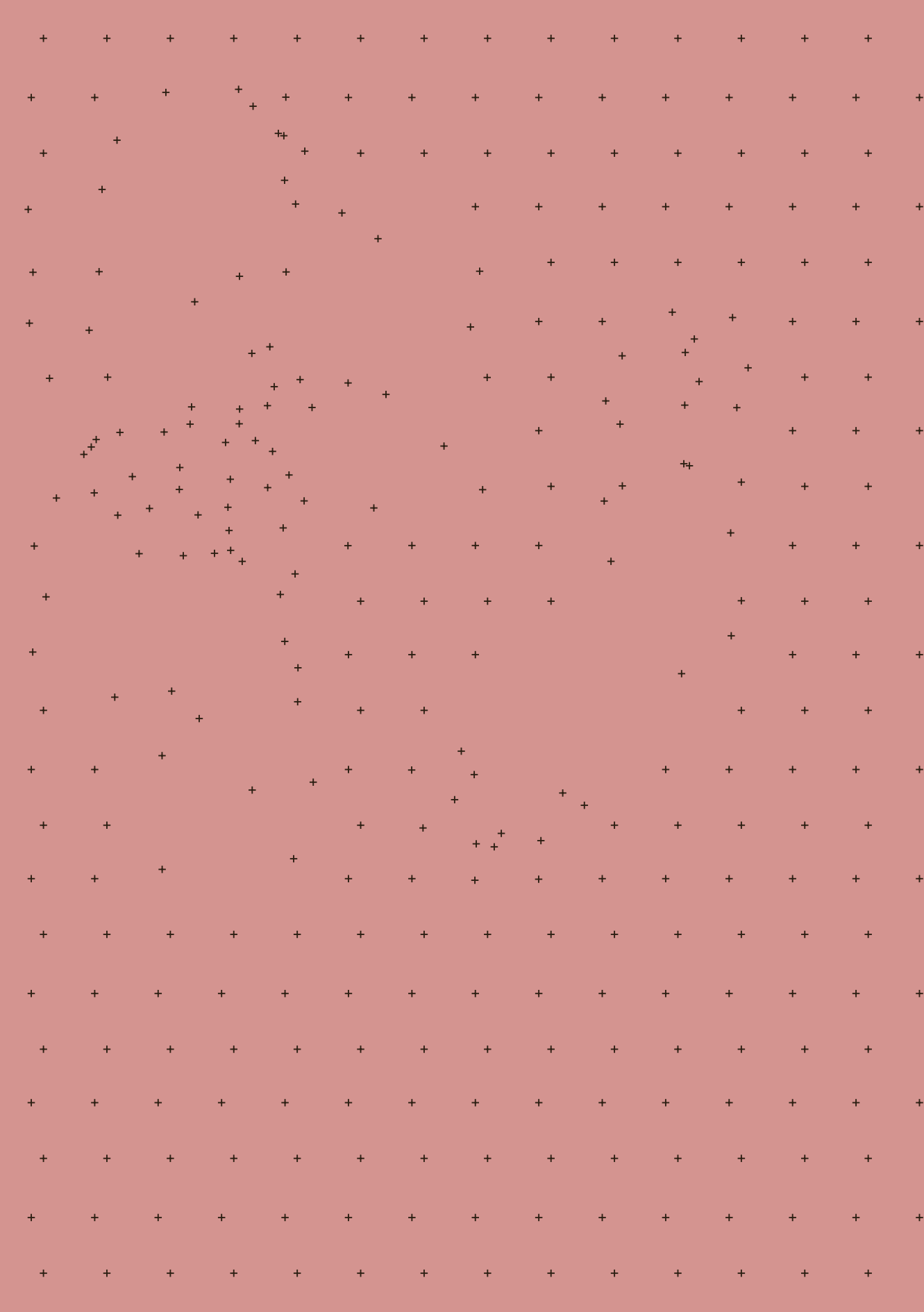# Through the Threaded Needle

A multi-sited ethnography on the sociomateriality of garment mending practices

MARIUM DURRANI

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Helsinki, 13 October, 2019
Marium Durrani

TABLE OF CONTENTS

LIST OF ORIGINAL RESEARCH PUBLICATIONS

This doctoral dissertation consists of an introductory section and the following four articles, which are referred to in the text by their numbers:

1. Durrani, M. (2018). The Becoming of Repair: Understanding garment mending through a practice theory perspective. In Heuer, M. & Becker-Leifhold, C. (Eds.). Eco-friendly and Fair: Fast Fashion and Consumer Behaviour (pp. 101–111). Routledge.
2. Durrani, M. (2018). Designers by Any Other Name: Exploring the sociomaterial practices of vernacular garment menders. Design Research Society International Conference: Catalyst. DRS International Conference Series, Volume 4, 1731–1746.
3. Durrani, M. (2018). "People Gather for Stranger Things, So Why Not This?" Learning Sustainable Sensibilities through Communal Garment-Mending Practices. Sustainability, 10(7), 2218.
4. Durrani, M. (2019). Sensed Attachments: Doing taste in and through garment mending practices. Under review.

LIST OF FIGURES

LIST OF TABLES

1

INTRODUCTION: MAKING THE INVISIBLE, VISIBLE

"The Human Being is a repairing
animal. Repair is ubiquitous,
something we engage in every
day in almost every dimension
of our lives. Homo sapiens is also
Homo reparans."
(Spelman, 2002, p. 1).

FIGURE 1: (a) The Marimekko blouse.

(b) Cutting the thread using my teeth.

1.1   BETWEEN FABRIC AND FINGER: WHY MENDING MATTERS

Stacked in a row, as my wavering hand brushed over the contents of my mending kit, the pearlescent threads of the grey roll delighted me. With one hand clasping onto a silky Marimekko blouse, I began gathering the ingredients for my mending recipe. *Alas*, the search for my trusted scissors was in vain. Needle, thread and two broken buttons in hand, I was ready to embark upon my journey. After approximating the length of the thread, I slowly placed it in my mouth and began slicing it using my teeth. Suddenly transported back in time and space, I could see my mother effortlesly breaking the thread using her teeth for one of her typical mending projects. I had always resorted to using scissors for this task, but today was different. As I ground my teeth and curled my lips, I continued to mimic my mother's manner until the thread broke.

Feeling accomplished, I was ready to taut the thread. Yet, to my surprise the cut I had made had splintered the fibres of the thread, leaving them in a frenzied state. In trying to twist them back as one yarn, using my teeth and tongue became all the more challenging. Failing to push the thread through the eye of the needle, I decided to twist the fibres together using my finger and thumb. Rolling them back and forth, aiming for the needle's eye again. To my relief, this time it went through, allowing me to knot together the two strands hooked in the needle. I then placed the button on the right spot and inserted the needle into its hole. As my insertions continued, my hands persistently moved in a crisscross manner that became mirrored on the mended button. When

FIGURE 2: (a) Crisscrossed visibly mended button.   (b) Barely invisible.

finished, I realized that all the other buttons were stitched in a manner different from the one that I had mended. Their threads ran parallel to one another, not crisscrossed. Laughing it off I decided to leave my X-stiched button as it was. Using the same thread, I then took to the second button. This time my movements mirrored and were led by the provided directions on the machine-stitched buttons, right through to the end of the mend.

In my simple performance of fixing buttons in two dynamic ways, I defiantly took up where the designer of this garment had left off. Instead of choosing black I chose grey, instead of going straight I went across, instead of using scissors I used my body; instead of passively letting the garment glaze over me, I responded to it. As the knots of my mends tightened and strengthened, the knots in my mind loosened and unravelled. My process of mending allowed me to make decisions through dialoguing with the matter caught between the fabric and my fingers. What began with the identification of a problem ended with a confrontation of an established order in the surprising renewal of an old blouse. Within one garment and with one practice, the old became juxtaposed with the new, resulting in a subtle act of aberration. My crisscrossed button and barely invisible mends, though seeminginly ordinary, embodied a wisdom that was rooted deep in the experience of practice.

From basic to dainty, course to ornamental, purposeful to fancy, a skill is shared, a history migrates, a story is told, a wound heals, and a promise is stitched through the threaded needle. Such is the pervasively

transformative reach of mending. A practice born of austerity, humble as it may be, holds within it an essence of care, creativity and the power to unravel the genesis of a garment. It is this very hold that the practice unleashes upon its practitioners, which can only be felt through doing and done through feeling. The visceral experience that mending brings with it deepens our estranged relations with our bodies, those of others: the matters of our clothing consort with the very practice that takes the past and brings it into the future.

This dissertation explores in depth the unsung practice of garment mending in communal repair events, which presently reside outside market exchange systems. By ethnographically studying the everyday menders participating in these events, the study unknots the tapestries of their practices. Four sub-conceptual frameworks were in dialogue with the data collected over three years, and their culmination enabled a better understanding of the contours, nuances and flavours of the practice. *How mending comes to matter* was explored and exposed. Next I review the contextual setting of the study, after which I outline its aims together with the research questions. I conclude this chapter with an overview of the thesis structure.

1.2   CONTESTED SPACES: MENDING RENDITIONS

Drawing on scholarly works from anthropology, sociology and philosophy, this multi-sited ethnography examines the practice of garment mending in communal repair events. As a counter-reaction to the rising levels of product waste, recent years have seen a gradual increase in the emergence of various grassroot-level open events, workshops, and do-it-yourself activities aiming to extend the life of products through repair (Middleton, 2015; Laitala & Klepp, 2018). Charter and Keiller (2019) note what they call a 'Fixer Movement' starting to take root in various countries around the globe. This movement is said to consist of a heterogeneous group of repair cafés (for example, the Restart Project, the Repair Café Foundation), online bloggers (for example, iFixit), craft-activists (for example, Otto von Busch Community Repair Project) and social enterprises that focus on sharing ways in which to fix various consumer products in defiance of the capitalist dogmas of a 'throw-away' culture (see Graziano & Trogal, 2019).

Born in the Netherlands, the Repair Café Foundation (RCF, 2012) has been a forerunner in hosting such public repair events. With the aim of fighting off the mainstream ideologies of premature product waste, RCF began arranging events in which people from all walks of life could

participate and obtain assistance to repair various products such as furniture, bikes, clothing, and electronics. Initiatives such as these are often considered to share the same hacker space ethos of "challenging the patterns of production and consumption within neoliberal capitalism" (Graziano & Trogal, 2019, p.206). Over the years, RCF has grown into a global network of 1538 repair cafés (from 500 cafés in 2014) with a goal of 5000 cafés by 2021 (Charter & Keiller, 2019). Charter and Keiller (2019) also note that on average these events are attended by 29 participants who each bring 19 items with them on a monthly basis. Sixty-three per cent of these items are repaired and given a second chance at life. This is a significant "contribution that repair cafés can make in extending the useful life of consumer products" (Charter & Keiller, 2019, p. 276). Off-shoots of RCF that focus primarily on the repair of garments are also emerging in various western countries (for example, Middleton's Sock Exchange, 2010; Tom of Holland, 2017; Otto von Busch Community Repair Project, 2011). In contrast to fast-fashion ideals and in line with RCF's ideology, these communal garment mending events aim to slow down and extend the use of clothing that people already possess.

Concurrently, in the last twenty years academic interest in repair has increased across various disciplines, from sociology (Henke, 1999), new media (Jackson, 2014), urban geography (Graham & Thrift, 2007) and, design (Rosner & Ames, 2014; Maestri & Wakkary, 2011) to organization studies (Orr, 2006). Most recently, fashion researchers have also explored domestic mending as a medium for addressing problems associated with textile waste within a clothing use context (Middleton, 2015). This popularity of repair in academic circles has further resulted in the emergence of a 'repair studies' field (Houston et al., 2017; Mattern, 2018; Reeves-Evison and Rainey, 2018 in Graziano & Trogal, 2019). The journal Ephermia recently published a special issue entitled 'Repair Matters' (2019) in which scholars from diverse backgrounds explored repair as a post-growth activity that challenges the dominant "neoliberal capitalist dogma of throwaway culture and planned obsolescence" (Graziano & Trogal, 2019, p. 202).

This special issue argued that repair is a regime of practice that is encompassed and entangled in a milieu of social relations, materiality, ecology, political infrastructures and economic motives. This approach takes "repair matters as embedded conditions of everyday life and social infrastructures, and resists treating them as discrete issues" (Graziano & Trogal, 2019, p. 204). Mirroring their stance on repair, the following sections undertake a critical review of the existing literature on garment mending in the context of clothing use practices. This introductory

review identifies and discusses four controversial areas to reveal the various knowledge gaps, contradictions and problematics related to the garment mending approaches in current research. In so doing, a number of questions are raised, answers to which will be interlaced and addressed within each of the upcoming chapters. Although the literature on garment mending is still growing and thus limited, by taking a potentially provocative approach to this topic, I hope to enable and make visible the enriched positioning and justification of the motivations, aims and objectives behind the present doctoral dissertation.

1.2.1 Globalized Issues of Growth: Design, Business-models and the Environment

The ever-controversial practices of the garment and textile industry are becoming increasingly detrimental to the lifeline of our planet. Criticized profusely, the industry has contributed to the creation of linear systems that support the insufficient use of natural resources and inconsiderate disposal of end-of-life textiles (Hvass, 2018). This has aided a perpetual cycle of producing clothing quickly, designing poorly, selling and purchasing garments cheaply, and frequently disposing of them in bulk (Fletcher, 2008). Though textile waste is a considerable problem in the pre- and post-production phases (see Tomovsa, Jordeva, Trajković & Zafirova, 2016; Rissanen, 2013), the stakes are even higher in the post-use phase. Various studies reveal that around 73 per cent of the annual 150 billion garments produced globally end up being sent to landfills or are incinerated after use, placing a heavy burden on the environment (Hvas, 2018; Kirchain, Olivetti, Miller & Greene, 2015).

Clothing lifecycle assessment reports have shown that extending the use-time of garments (beyond the current two-year mark) is crucial for reducing the rates at which garments are thrown away. Bras-Klapwijk and Knot (2001) note that the use phase of garments includes activities such as washing, storing, ironing, and repairing to ensure the maintenance of the garment. Repair therefore sits at the heart of product longevity (Terzioğlu, 2017) and has also been part of the European Union's environmental Waste Framework Directive policy since 2008 (Graziano & Trogal, 2019). Keeping garments in use for a longer period can save approximately five billion pounds worth of resources in one year alone (WRAP, 2012; Fletcher, 2008; Black, 2012). Although several other approaches have sought to address extending the use of clothing, I focused my analysis on garment mending (for a comprehensive review of approaches to product longevity, see Fletcher, 2012).

Within this domain it has been claimed that repairing garments, instead of replacing them with new ones, could enable a reduction in the frequency of new purchases and that this could "reduce the carbon, waste, and water footprints from the production stage by more than 20 %" (Laitala & Klepp, 2018, p. 1; Diddi & Yan, 2019). At the same time prior research on mending, although limited, mentions lack of time, skills, access to equipment, and the relative cost of mending as the main barriers to repairing garments in a Western context (see Clark 2008; Gwilt, 2014; Lapolla & Sanders, 2015; Norum, 2013; McLaren & McLauchlan, 2015). In order to address these issues, various propositions for increasing mending practices have been explored. In this section I mention two of these suggestions namely; design-led interventions and alternative business models. In what follows, the extent of the effectiveness of the arguments presented by these approaches within the context of garment repair is discussed. It is not claimed that the description of these approaches is exhaustive, but it is hoped that the reader will find the upcoming discussion reasonably comprehensive.

Design-led interventions or the 'design for longevity' approach suggests various ways through which the design of the garment can be improved. The ultimate aim of this approach is to extend the use of garments through design-led solutions such as making garments using good quality, durable yarns and fibres; using materials that can endure regular washing cycles; creating multi-functional garments for easy maintenance and giving people opportunities to be imaginative with their styling choices; providing easy-to-follow laundry and care instruction labels on garments; focusing on designing garments that have classic and timeless designs (for a comprehensive review see WRAP, 2013); or employing co-design practices through half-way garments to create product-person attachments that enable the repair of a beloved garment (see Hirscher, 2013). Gwilt (2014) suggests that fashion designers could also focus on creating both high quality and modular garments that people can easily repair. This, she states, could be one way to encourage mending. In addition, in order to challenge the cultural-historic connotations attached to mending as an impecunious practice (Köning, 2013), she urges designers to create future garments that already incorporate visible mends or holes or rips so as to camouflage any additional damage that might occur through the use of the garment.

A second commonly suggested approach is encouraging the creation of alternative business models that support the environmental agenda to repair. Gwilt (2014) recommends small/medium fashion

businesses to offer mending services, as one way to both help normalize the practice but also provide financial support to local fashion businesses. This recommendation has further been reinforced by government commissioned reports such as Defra (Fisher, Cooper, Woodward, Hiller, & Goworek, 2008) and WRAP (2012, 2015), which suggest various economic benefits from offering the provision of repair services. A recent study showed that repair, reuse and recycling could potentially create over 3 million jobs (gross) by 2030, resulting in "a reduction in unemployment across Europe by around 520,000" (WRAP, 2015, p. 29). Others have also proposed tax-breaks for repair service providers (Fletcher & Grose, 2012 in Middleton, 2015) as possible means of encouraging repair and 'altering' peoples' practices. The government of Sweden has already implemented this by offering reduced taxes to support repair and re-use business practices (see Len, 2017; Orange, 2016).

Approaching repair through alterations in design and 'alternative' business models supported by policy frameworks is certainly a welcome sign of change towards recognizing the importance of repair. However, the suggested paths are not entirely uncontested, for three key interconnected reasons: firstly, proposing change in peoples' practices through the creation and sale of new products with better designs is not far from, but very much entrenched within, the economically-driven business logic of market-based growth. Graziano and Trogal (2019) critique this approach and call the production of new products 'key moments' in the processes of capitalism and growth (p. 212). Even if the design of the garment is improved and it can withstand regular washing (WRAP, 2013), in creating new garments are we not continuing to extract resources from the environment and perpetuating the very system that brought us here in the first place? Secondly, if designers or businesses offer repair services, sell repairable spare parts or modular garments that people can take apart and potentially repair, surely this increases the risk of moving from independent informal spaces of communal mending to industrialization and "colonization of common spheres of reproduction by part of the market" yet again? (Graziano & Trogal, 2019, p. 212). In so doing, are we fighting off or perpetuating a new form of consumption? This leads us to the third dilemma, as raised by Shove (2010): the greater question that arises in the above mentioned actions is for whose benefit and 'to what end' are these policies intended? She further points to the paradox of environmental public policy as being embedded within neo-liberal agendas and paradigms of free markets, and individual choices that feed into the ideology of '(sustained) growth' (Graziano & Trogal, 2019,

p. 209). Is it not fair to ask then, that if such directives are aimed at and reside within the limits of market-based systems of production and consumption, are we not standing in stark opposition to the very problem we aim to address? If such is the case, can we ever truly reconcile relations between economic sustenance, re-skilling of the commons and ecological protection? In light of this, what other alternatives can we begin to explore? The next section elaborates on this.

1.2.2 Approaching Practices: Information-based Change

In addition to the recommendations mentioned in the previous section, information-based approaches are often sought when suggesting pathways to motivate and 'steer' user practices towards mending. It is hoped that one-way dissemination of information will 'nudge' practices in the right direction and work towards bringing positive changes by altering peoples' attitude (Hampton & Adams, 2018). Within research on garment mending, this has been undertaken by recommending, for example, introducing sewing classes in schools, using technology through social media platforms such as YouTube to deliver sewing instructions to the public (Norum, 2013), or launching information media campaigns to 'educate' the public on the benefits of mending (Dombek-Keith & Loker, 2011). Whereas some (Norum, 2013) link sewing knowledge positively to mending, McLaren and McLauchlan (2015) claim the opposite. In their research, they employed a participatory workshop method as part of their 'Love Your Clothes' (LYC) campaign in Scotland, the United Kingdom, to which they invited the general public to participate in mending and up-cycling activities. During these workshops, the participants were instructed to mend their garments in ways that made the repair of it visible. This included using darning and basic embroidery stitch techniques.

Although the study did not mention the number of participants and workshops, it did reveal that even participants who possessed expert sewing knowledge (for example, those who knew how to darn) did not automatically turn to mending garments when needed. The study found that associating mending with austerity, seeing it as a gendered domesticated chore and an isolated practice played a more significant role in curtailing the practice than a lack of sewing knowledge. Moreover, they found that the participants who mended often did so to save a favourite garment. Their study linked mending garments to *a priori* emotional attachments to the garment. Similarly, Gwilt's (2014) findings also revealed a significant gap between available information and mending practices. Her U.K. based study showed that even though online

information was readily available, the participants in her study first and foremost turned to their friends and family members for help and guidance on their mending. The study therefore concluded that having access to online information did not automatically result in increasing the practice of mending.

Given such contradictory and problematic research findings, perhaps it is worth asking why information-based solutions continuously get pursued? According to Hampton and Adams (2018), the 'nudge' approach, or causal deliberations (rooted in rational choice theory/behavioural economic theories) have played a profound role in influencing environmental discourse at large. This has commonly resulted in suggesting policies or pursuing solutions that aim to 'educate' people in order to fill information gaps assumed to alter behaviour (Hargreaves, 2011). It is believed that individuals base their decisions on a process of weighing the pros and cons of a situation (rational) after which they pick a certain path (choice) and act upon it (behaviour). Approaches such as these lead to 'rational actor' perspectives on user practices (e.g. rational choice theories, see Hampton &Adams, 2018).

However, doing so risks treating people as targets of policy by isolating and reducing environmental issues to an individualized problem, thus placing the onus of responsibility entirely on the user. Over the years, and as this chapter later discusses (see 1.2.4), such an approach has been criticized for failing to challenge the larger structures in which practices of use are embedded and for generally lacking a clear understanding of social change and practices (Shove, 2010). Another related contradiction that runs deep through the existing literature on user practices of mending lies within the continual assessment of the practice. While various studies have revealed a general reduction in the regularity of domestic mending (WRAP, 2012; Gwilt, 2014; Norum 2013; Clark, 2008), participation in repair events has been growing (see Charter & Keiller, 2019). Laitala and Klepp (2018) reveal a significant gap that is often overlooked when collecting data in current research on mending that has led to the total misrepresentation of the practice. This leads us to our third realm of contention, which is discussed in the next section.

1.2.3 Ambiguities Continue: A Definition?

In 2013, based on a quantitative study of mending, a nationwide survey in the United States was circulated with the aim of identifying the barriers to domestic mending (Norum, 2013). This survey described sewing as comprising button sewing and sewing back undone hems, but offered no

clear explanation of what 'repair' comprised. Based on the data collected, the study concluded that lack of knowledge was a key barrier to falling levels of domestic repair practices. A similar study on garment re-use and repair practices using co-creative research methods conducted two workshops with 19 participants to explore how women used creativity to re-use and repair clothing (Lapolla & Sanders, 2015). This study saw creativity in terms of a hierarchical four-level practice, consisting of the following steps (p. 186):

> Doing: no skills needed, minimal interest required, motivation is to get something done: example – organizing closets

> Adapting: basic skills and some interest and motivation needed to personalize something: example – altering garments or hemming pants

> Making: intermediate skills and actual interest needed, motivation is to use hands: example – mixing and matching garments or styling

> Creating: advanced skills and passion needed, motivation is to express creativity: example – up-cycling garments.

The participants in this study were first given a two-dimensional task in which they conceptually explored the 'aspirations' of women with regards to garment re-use and repair. Following this, three-dimensional artefacts were created through up-cycling old garments into pillow covers or bags. Although the study claimed to explore repair and re-use practices, its main focus was on analysing practices such as mixing and matching different garments or styling, up-cycling and altering garments. They then concluded that mending as a practice lies at the lower end of creativity. Yet they made no observations nor did they document *how* and in what ways participants actually mended garments. Not only did the authors fail to clarify how they defined repair, the conclusions they drew were based entirely on re-purposing garment practices that had been unduly mixed with mending practices.

In Gwilt's (2014) study, which used the participatory research method, consisted of two workshops run by professional fashion/textile designers in Sheffield, the United Kingdom. During the workshop, people were asked to mend either a t-shirt or a pair of jeans provided by the

researchers. Prior to these workshops, data were collected through surveys, which revealed that the majority of the participants self-identified that lacking the skills and knowledge to mend was a barrier to mending. However, during the workshop sessions, their practices revealed otherwise, for even those with no prior experience engaged in basic mending with no guidance during the workshop. Though Gwilt does not elaborate on this finding, it certainly points to a gap between what is recorded and what is actually *done* in practice. Laitala and Klepp (2018) link this discrepancy in earlier research to the lack of a clear definition of mending that has contributed to a distorted image of the practice. They state that previous research on the topic has not identified or provided detailed information on existing mending practices, the type of clothes that are mended or why they are mended. For a practice as seemingly simple as repairing ones' clothing, the data on it seem to suffer from various inconsistencies. For this reason and before delving deeper into addressing this issue, a brief introduction to what is meant by and encapsulated in garment repair is necessary.

Mending or repairing is perhaps one of the oldest practices known to humankind (Spelman, 2002). The etymological roots of repair can be traced back to the 16th century word 'repairen' which refers to restoration after decay (Schmid, 2019). In essence, when something is broken the process undertaken to fix it is denoted as mending or repairing: be this it in the midst of early morning medical surgery or in the warm setting of a monthly garment mending commune. Both to mend and to repair encompass "an informed and non-random action that establishes a function of something again, meaning a function that was previously performed but somehow is temporarily hindered" (Streibl, 2017 in Schmid, 2019). However, differences sometimes exist between the cultural-historic meanings associated with words. According to Middleton (2015) mending carries particularly gendered connotations of women's handwork linked to textiles, whereas repair is more neutral and widely used to refer to fixing a varied range of items including clothing, electronics, furniture, technology, and cars (Middleton, 2015). Mending, she states, can be understood as "the gesture that sustains and prolongs the functional life of a garment by remedying malfunction and material waste" (Middleton, 2015, p. 264). However, for the purpose of this research, I use mending and repairing interchangeably when referring to fixing garments.

Garment mending can be seen as part of the sewing family (Rodabough, 2018). Sewing broadly involves the process of connecting two objects using threads or yarns and a needle or a sewing machine. In

order to join the objects or pieces of fabric, stitching is used. Stitching requires inserting a threaded needle into and through the fabrics to be sewn together. Some examples of stitching are cross, knot, back, running, overcast and chain stitches. Stitching is a core part of sewing. Practices such as mending, dressmaking, embroidery, tapestry-weaving, and patchwork all form part of sewing (Rodabough, 2018). Whereas dressmaking involves the creation of new garments from unstitched fabric, mending consists of fixing the existing garment using various types of stitching and sewing techniques.

Mending can be further understood in terms of either visible or invisible repair techniques for fixing a garment. In visible mending, the repair is not masked, but discernible. Common examples are embroidery, patchwork, decorative applique/ornamental patching and various other stitching techniques that use different coloured threads to those of the garment being mended. In invisible mending, in turn, specific stitching techniques such as darning, fusible interfacing, blind stitching, slip stitching or other stitching techniques hide the visibility of the repaired part (see Rodabough, 2018). It is also common to use threads or yarns that match the colour of the original garment to hide the repair. Thus, mending can mean either visible or invisible button re-stitching; stitching undone seams or hems; or fixing holes, rips, tears, frays or signs of wear in or on any part of a garment. Holroyd (2017, p. 236) uses 'mending' to refer to invisible repairs and 'altering' to refer to visible repairs. Sennett (2009) in turn calls repairs that restore an object back to its original form 'static' and prefers using 'dynamic' repairs to refer to mends that alters the function and form of an object through acts of repair. Holyroyd (2017), Sennett (2019) and other researchers (see Gwilt, 2014) understand mending through the finalized artefact. This deliberation does not study the process of mending but uses what results from it to help differentiate between styles of mending and place them into fixed categories of static, dynamic, mending, altering, invisible, or visible.

Although certain procedures involved in altering and mending garments do overlap, it is important to disentangle the two practices and understand them separately. When garments are altered, they have not suffered a breakage; they are changed to fit better in size or shape, or to create a new style and form. Mending can and also does result in altering the style, fit and features of a garment, visibly or invisibly. Yet, the defining line between alteration and mending depends on whether the garment was broken or damaged prior to being worked upon. Similarly, if garments are being hemmed during the production of the apparel, this

is categorized as a dressmaking practice, but if they are being re-hemmed because they have become undone it becomes part of mending. Although ways of mending garments borrow from various sewing practices such as embroidery or patchwork, what distinguishes them from each other is the intention behind them. Other practices might be carried out at any time but mending only occurs when something breaks or is near breaking and needs to be reinforced or fixed.

Thus, in the research of mending practices, explanatory classifications are key to accurately representing the practice by both the researchers and those being researched. This is especially relevant when relying entirely on quantitative methods such as nation-wide surveys for collecting data on mending. In line with this, Laitala and Klepp (2018) conducted three longitudinal quantitative surveys in Norway in 2010, 2011 and 2017. They included not only basic mending such as fixing broken buttons and undone hems as part of mending but also more complex mending such as patching and darning. Providing detailed categories of mending alongside garment-'making' practices allowed them to more precisely identify the number of people who actually mended and made clothing. By doing so, and contrary to other research, their results revealed that the practice of mending in households had increased since previous reports.

Contradictions such as these therefore point to a general lack of understanding regarding which practices are part of mending, *how* people actually *mend,* and calls for a definition of mending when conducting research. The question that then arises is what methods or theoretical frameworks can be adopted to efficiently study these intricate details of mending. One way to unpack this is to first explore how existing approaches have broadly shaped the present understanding of user practices of mending. The next section takes this discussion on.

1.2.4   Unravelling the Complexities of Use

On the one hand, interest in mending has been growing, but on the other, empirical research on existing garment mending practices, particularly in communal events, is still missing. As shown, prior research on mending has primarily focused on identifying the *perspectives* of mending and has treated it as merely an empirical object, leading to the under-exploration of existing practices and the *processes* involved in mending. Additionally, majority of the studies on garment mending have been based on short-lived participatory workshops where the focus has been on examining why people do not mend and not on *how* they mend. Moreover, a

common underlying theme in the literature presented so far reveals an understanding of user practices as free rational decision-making agents. In other words, individuals are seen as taking decisions in their own best interest if well informed on the matter (Shove, 2010). These approaches claim that in order to change behaviour, individual responses (attitudes) need to be altered through a system of reward and punishment surrounding the behaviour, in a stable context (Hampton & Adams, 2018). It is believed that incentives or disincentives could alter behaviour, for example, using external stimuli such as taxes to discourage consumption. Influence of these approaches can be seen evident in the numerous information campaigns, design-led, repair business model propositions suggested for altering practices. However, practices are not only difficult to change; they are deeply nuanced, multi-tiered and anything but monolithic. Peoples' practices are not merely cognitively-driven; they are entangled in various sociomaterial, historical, political and economic elements that need due consideration when suggesting means of altering them (Shove, 2010), an aspect that has not been explored in depth and presents itself as the fourth area that needs to be discussed.

Fletcher (2012) notes that the durability of garments often has very little to do with their design and instead points to the impact of social relations on garment use. Charter and Keiller (2019) also found that participants who frequented repair cafés were encouraged to repair more and felt connected to a larger cause and their communities (p. 277). McLaren and McLauchlan (2015) too highlight the importance of 'collaborative forms of fixing' for fighting off traditional associations of mending with times of hardship and drudgery (McLaren & McLauchlan, 2015). A recent study in the United States further identified a rising interest and willingness of people to engage in "local community mending events". However, the study revealed that due to overall dearth of such communal initiatives in the U.S, mending practices have remained unsupported (Diddi & Yan, 2019, p. 11). Perhaps it is worth asking if the larger 'barrier' to mending is linked to a general lack of systemic provisions needed to support localized informal communal activities. Could it be that bringing change in practices is not a simple question of merely changing ones' mind? Maybe practices cannot change without changing social structures, and in order to change social structures, practices cannot stand outside the 'social'; instead the 'social' must be found inside the practice (Shove, 2010). Here we can turn to the scholarly works that form part of practice theories, which take 'practice' as the unit of analysis for understanding how they emerge, evolve and might expire (or potentially change).

In shifting attention away from the individual, practice theorists refute 'nudge'-based rational actor perspectives and challenge the epistemic tradition of individualised methodologies that target change based on the ideology of individual behaviour change (Hampton & Adams, 2018). Practice theorists claim that policy-makers seldom take into account the socio-technical-material context to which user practices are tied, and may actually inhibit change instead of enabling it (Shove, 2010). In the same vein practice theorists claim that context and practices are 'inextricably bound' and need to be understood in relation to one another (Kruz et al., 2015, p. 116). In moving away from such positivist and rationalistic explanations, practice theories therefore see practices as being linked to larger social and material structures. For this reason, change in behaviour is seen to come about through a reconfiguration of infrastructures, the rules of a practice and/or widely shared cultural norms (Shove, Pantzar & Watson, 2012). Consequently, if practices of garment use are expected to change, it is important to first understand how practices themselves are conceptualized. Using practice theories or practice-based theories (Gherardi, 2017) as its guiding principal, this study has therefore attempted to do just this by theorizing garment mending as a *sociomaterial* practice. The next section elaborates on how this task is undertaken and describes the study's aims and research questions.

1.3   AIMS AND RESEARCH QUESTIONS

From the preceding discussion it is apparent that there is a variety of discourses on garment mending. Moreover, the dominating academic narrative on the topic is filled with contradictions and multiple knowledge gaps. Finding an absolute resolution might not be a straight forward task however through this research an attempt is made in that direction. In so doing, this study seeks to open views and conceptions of user practices as not always destructive but also instructive for future research on practices of mending. Through this dissertation focus will be brought on studying the *existing* off-the-grid communal mending practices that run parallel to mainstream fast-fashion systems and to reveal them as promising grounds for addressing pro-environmental transitions. In other words, examining the mending practices of everyday people in self-organized repair events i.e. vernacular spaces, will be situated at the heart of this dissertation's inquiry (see Figure 3, p. 28).

As prior research on the topic has under theorized *practices* of mending, this study primarily intends to understand, observe and illustrate an alternative conceptualization, qualified through lived experiences of

POLITICAL/
ENVIRONMENTAL
sustainable development,
circular economy goals,
information/media
campaigns

CULTURAL/HISTORIC
domestic, gendered,
austerity

ECONOMIC
tailors/seamstresses,
repair services, repair-part
providers, independent
fashion-designer
businesses, online fixing
sites/bloggers

'nation-state'
building, 'make, do &
mend' (WW2), punk
movements (1970s)

tax-cuts for
repair services

social enterprises
craft-activists

HOUSEHOLDS

**vernacular
spaces**

COMMUNAL
repair cafes, open-events,
community hubs

FIGURE 3: Garment mending at a glance.

being-in-practice (Wilhite, 2012), by proposing to examine mending as a sociomaterial practice. Through ethnographically following garment mending in vernacular spaces, the purpose of this study is to theoretically and empirically understand how alternative practices of garment use have managed to take root, stick and could spread. In view of this aim, a study of mending practices in 18 communal events in four cities (Helsinki, Auckland, Wellington and Edinburgh) was conducted. Essentially this research was philosophically guided through the principals of pragmatism, was theoretically grounded in practice theories and methodologically was driven by a multi-sited ethnographic approach. The overarching guiding research question was thus drafted in as:

How does mending come to matter?

In order to address this, four sub-questions were further drafted, resulting in one conceptual (Article 1) and three empirical articles (Article 2–4). Each sub-question allowed the topic to be studied through four conceptual lenses. As Chapter 2 later elaborates, relying on theories of practices meant coming to terms with the various perspectives of the concept of 'practice'. Three common approaches that have sought to study

practices have treated practice as either a *phenomenon,* to be studied only as an empirical object; an analytical *perspective,* to gauge the understanding of social reality; or a *philosophy* that treats practice as an onto-epistemological object that can be observed and conceptualized (Orlikowski, 2010). I began my study of mending practices by first analysing mending through a practice *perspective*, connecting it to a larger movement and considering it a *phenomenon*. However, as Marcus (1995) states, as researchers continue to go deeper into their field through their object of study they begin to develop and become engaged with different conceptual frameworks. Therefore, during my fieldwork I moved towards understanding practice as a *philosophy*. Treating practices as an onto-epistemic unit became central to my work on understanding mending as a sociomaterial practice. My aim was to explore the complex nature of user practices and to expand on the current understandings of them, in order to better contribute to larger discussions on future pro-environmental pathways.

Consequently, in the first instance, I constructed a conceptual framework founded on an elements-based perspective of practices (Shove, Pantzar & Watson, 2012) to trace the history (or 'career') of the practice through an identification of the matters or 'elements' of mending. In doing so, this conceptual paper aims to understand how the practice can be theoretically re-framed by giving it a unit of analysis. The first sub-question was:

What are the matters of mending? (Article 1)

The study began gathering empirical data on mending practices and through an abductive logic of reasoning (Timmermans & Tavory, 2012) formulated three conceptual effects that resulted from the affectivity of being in practice: creativity, learning and taste. This provided the remaining three conceptual lenses through which to understand and analyse the collected data for further theorization. How menders do what they do and bring order to their practice then became the focus of interest. Therefore, the second publication examined data collected at site one in Helsinki, Finland by asking the second sub-question:

How do menders perform their practice? (Article 2)

Garment mending is often considered a non-creative practice (Lapolla & Sanders, 2015) with research focusing on studying the final artefact alone. This article examined mended garments in relation to the process of mending in its entirety, how mending unfolds and is sorted and situated creatively within the various ways in and through which mending

is performed into being. This further allowed tapping into the ways in which menders intricately organize their practices. The third article closely examined and situated the process of learning in practice and identified the learned outcomes resulting in and through the intimate entanglements of menders with their garments and other menders. The communal repair events in Auckland and Wellington thus provided the second ethnographic site for data collection and analyses, enabling the third sub-question:

How do menders actively learn during and through doing mending? (Article 3)

The last instance identified taste as the third conceptual effect of being in practice and thus provided a framework for collectively analysing the data from all three sites of this study. The aim of this final article was to understand how alternative practices of garment use are sustained. Using taste as a conceptual framework to analyse the empirical data collected in Helsinki, Auckland, Wellington and Edinburgh, the final article focused on how practices are sustained through the body's continual engagement with materials and other menders. The article examined how people develop and become able to assess the required quality of their practice to keep it going through their sociomaterially entangled corporeal experiences. Thus, the fourth and final sub-question asked:

How do menders sustain their practices? (Article 4)

Set against that backdrop, the ultimate aim of this study is to shift the understanding of mending practices as plainly reproductive and solely driven by cognitive individualistic rationalism towards perceiving them as sociomaterially situated reflexive practices. In other words, by moving the unit of analysis away from the perspectives of mending, I attempt to overcome the dichotomized divisions between mind and body, human and non-human, nature and culture, and designer and user, through an understanding of *practices* of mending. Practice then becomes the central source of knowledge and theorization (Gherardi, 2008).

The study findings have been analytically examined through abductive reasoning, resulting in the theorization of the empirically studied practices of menders. The present study aimed to bridge the theoretical and empirical gaps in current research on garment mending. Through in-depth ethnographic research, the findings revealed how the practices of performing, learning and sustaining mending are essentially entangled in

a material and social context that is reflexively practiced. By empirically working through the convoluted ways of mending in communal events, the study opens up theoretical discussion on people as active agents of change, while attempting to expand the existing understanding of designed objects, informal learning platforms and user attachments. In this way the study places mending at the intersection of creativity, care and competencies.

1.4   THESIS STRUCTURE

As this is an article-based dissertation, it is divided into two parts. The first part is the introductory section, consisting of six chapters. This is followed by four appended articles, forming the second part of the dissertation. The introductory part began in Chapter one, providing a background to the study topic: earlier works on garment mending within the context of clothing use practices, and how mending has been previously researched and positioned. It also addressed the gaps in the present debate on the topic. This was followed by introducing an alternative avenue for switching perspectives and concluded with a presentation of the aims of the study and the research questions.

Chapter 2 introduces the theoretical framework upon which the study is based. This chapter provides detailed discussion on the theoretical perspectives that influenced this study and within which the work is theoretically situated. It reviews the scholarly work that forms part of the umbrella term 'Practice Theories' and discusses how the research has moved from being based on substantialist elements-based to relationalist knowing-in-practice perspectives. This then leads to a thorough exploration of the sociomateriality of practices.

Chapter 3 reintroduces mending by presenting the remaining three sub-theoretical frameworks through which to conceptualize mending as understood through three effects resulting from sociomaterial affectivity in practice. The chapter provides a detailed discussion on the concepts of creativity, learning and taste.

Chapter 4 presents the methodological basis of the work and discusses the research paradigm, ontology, epistemology, and methodology at length. It looks at how and why the data were collected and analysed, and then provides a review of ethical considerations. Chapter 5 presents summaries of the appended articles by listing the findings and concepts of each publication.

Finally, Chapter 6 discusses the insights into and implications of the work and suggests paths for future research.

2

THEORETICAL
FRAMEWORK

"I use a needle and my hand for mending and I have a sewing machine as well. I prefer using my hands to repair. I feel I have more of a connection with the garment and it's somehow more under my control when it's in my hand."
(Vernacular mender, Helsinki, Finland, 23/03/2017).

This chapter introduces the theoretical framework upon which the present dissertation is based, commencing with a general introduction to Practice Theory and its principals. After this it details two specific theoretical perspectives from which the present work drew. Although the overarching theoretical deliberations of this work are based on the writings of practice theory scholars, two theoretical perspectives provided the foundation upon which the subsequent concepts used in this work were cemented. Therefore, based on these larger perspectives, four sub-conceptual frameworks emerged. The conceptual framework initially used in Article 1 to conceptually examine mending is described here whereas Chapter 3 addresses the remaining three sub-conceptual frameworks that shape the analysis of the empirical articles in detail (Articles 2–4).

2.1   THEORETICAL PERSPECTIVE

To understand a given phenomenon it is important to review what is already known about it. Theoretical frameworks play a critical role in building the knowledge basis of a researcher for comprehending how things work, as they outline the research by clarifying the epistemic characteristics of the inquiry, guiding the choice of methodologies, and enabling sound conceptualizations of the research findings. Theory is used in research to produce new knowledge; this can either start with an existing hypothesis (deduction) or be created through data (induction). Or a constant dialogue between theory and data can generate new insights and code them into theory (abduction) (Collins & Stockton, 2018). Due to a lack of research on the emerging practices of garment mending in communal events, no prior theoretical frameworks had examined mending as a sociomaterial practice (see Article 1).

In light of this, the theoretical framework for this work was systematically created as a dialogue between theory and data, which unfolded over the course of the study. In order to critically take on the task of studying mending as a sociomaterial practice with no clear prior theoretical frameworks, it became vital to first examine the theoretical perspectives of theories of practice so as to 'theoretically sensitize' (see Timmermans & Tavory, 2012, p. 173 and Chapter 4) myself as I collected, analysed and conceptualized the data during the course of my research. I began my treatment of practice theories by using *practice* as a *perspective*, as an analytical tool to understand social reality and practices of use (Orlikowski, 2010). Thus, I initially drew on the works of practice theory scholars who have contributed to the field of consumer research.

Although philosophers and sociologists alike have long been theorizing on the nature of social organization and practices, practice theories have only gained the attention of scholars studying consumption practices in the last twenty years (Shove, 2010; Warde, 2005). Social practice theories or practice theories consist of a heterogeneous body of sociological literature that explores how various norms, rules or elements of use emerge and interact with daily life and influence peoples' practices (Shove, 2010). With the 'return' to practice, contemporary practice theorists in particular have provided novel insights into the study of everyday consumption patterns and practices (see Shove, 2003; Warde, 2005; Wilhite, 2008, 2012). Whereas classical sociologists emphasize the role of social class and income groups (see Bourdieu, 1977, 1984), consumption scholars emphasize the links between the elements of materials, skills and meanings for understanding practices of use (Shove, 2010).

The body of knowledge that forms practice theories has a long lineage, one that cannot be sufficiently illustrated in this limited space. Therefore, I will begin by mentioning the common principles that hold the different strands of this polysemic theoretical perspective together. The first is a rejection of dualistic notions of knowledge and practice (Gherardi, 2017; Reckwitz, 2002; Shove et al., 2012; Warde, 2005; Schatzki, 2002). Scholars of practice theory jointly stress the inseparability of the mind from the body in the performance of practices. This means that practices are situated enactments of knowledge, and practical knowledge is given equal precedence (Gherardi, 2011). This leads us to the second point, in which practice becomes the unit of analysis. The focus shifts from individualized values or belief systems to the enactments of the practice (Reckwitz, 2002; Shove et al., 2012; Warde, 2005; Schatzki, 2002). In other words, behaviour becomes seen as part of a given practice and is not understood as individualistic. Therefore, engaging in practices is not telling of the individual but of the characteristics of the practice itself and the individual is understood as the 'carrier' of a practice (Shove et al., 2012). Shove and colleagues (2012) state that the question is no longer *who* is doing, but *what* is being done and *how* it is being done (p. 54–55). Third, "social relations, material infrastructures and context" (Hargreaves, 2011, p. 82) is then given relevance and individual choices are understood in relation to these. Therefore, fourth, by "looking through a lens of practice" (Warde, 2005, p. 132), everyday life comes to be understood as a constitution of routines that is connected to a larger social and material context (Shove, 2003). Individual choices are recognized as being tied to social, material, cultural and

historical elements rather than as stand-alone phenomena that can only be altered cognitively.

Practices are seen as being informed though everyday lived experiences which in themselves are understood as rudiments of a social, historical, cultural, and materially sustained world. Practice is assumed to have its own internal logic from which, through a constellation of various elements, it emerges, evolves and/or expires (Shove, 2003; see 2.2). Thus, when studying practices, the question is no longer *why* people do what they do; it moves to an exploration of *how* people do what they do. Such an approach therefore takes a non-moralistic and non-normative view of practices. Therefore, instead of seeking to change a practice by external stimuli in controlled contexts, practice theorists begin by identifying the elements that originally constitute an existing practice, as embedded in the context (Reckwitz, 2002; Shove et al., 2012; Warde, 2005; Schatzki, 2002, 1996). Switching from the *why* of a practice to the *how* thus also results in the examination of the *what* of the practice. It is precisely the *what* of the practice that the next section explores.

2.2   FROM BOURDIEU TO SHOVE: AN ELEMENTS-BASED UNDERSTANDING OF PRACTICES

Contrary to the deliberations of the post-modern, utility maximizing, rational individual who makes decisions based on 'retail environments' (see rational choice theory, behavioural economic theories) is the view of action as being socially structured. According to Bourdieu (1977), practices of use are tied to social hierarchical structures more so than the rational calculations that determine behaviour. In other words, for Bourdieu, the social class one belongs to defines the type of products one consumes. This approach privileges structure over agency and sees individuals and their practices of use become entirely locked in by the larger socio-political and economic power structures. Nevertheless, this view of action, introduced a cultural explanation of behaviour through social structures, power, routines, norms, and habits (as opposed to binary suppositions found in RCTs). On the other hand, drawing from these very seeds sown by Bourdieu's practice theory, contemporary practice theorists have provided a middle ground between the non-agentic (*homo sociologicus*) and the highly agentic rational (*homo economicus*) understanding of people's practice. Therefore, "an analysis of the ongoing routines, engagements, and performance that constitute social life" (Arsel & Bean, 2012, p. 901), examines and understands everyday practices of use beyond the point of purchase.

Before commencing further, it is worth noting that practice theory is neither a grand theory nor free of shortcomings. As will be explained, it was in the treatment of these limitations that I was able to critically design a framework that could best support my exploration and explanation of the nuances emerging from within the multifarious practice of garment mending. Moreover, I have intentionally held back from giving a precise definition of what a practice means until now. The reason for this is connected to the previous point. As mentioned, practice theory is not a grand theory, as several accounts of practice can be found within the literature. It is therefore important to understand that a practice has no one standard definition. Although the works of contemporary practice theory scholars can be traced back to pragmatism and classical sociologists alike (see Chapter 4), contentions remain over the precise meaning of practice. Therefore, for the purpose of this research, I initially used the writings of contemporary practice theorists who have contributed to consumer research, such as Andreas Reckwitz, Alan Warde, Theodore Schatzki and Elizabeth Shove, to create an understanding of what is meant by a practice. Reckwitz's (2002) definition helped create a departure point for understanding practices as a:

> routinized type of behaviour which consists of several elements, interconnected to one another: forms of bodily and/or mental activities, 'things' and their use, a background knowledge in the form of understanding, know-how, states of emotion and motivational knowledge. (p. 249).

Although Bourdieu's influence on Reckwitz's work can certainly be identified, it was the mention of these elements that differentiated contemporary theorists from their classical counterparts. It is true that the elements that constitute a practice vary even in the works of the above mentioned contemporary theorists (for a summary see Gram-Hanssen, 2011, p. 64). Elizabeth Shove's (2003, 2012) work on practice theories, in particular, provided a foundational understanding from which this dissertation began constructing its conceptualization of the practice of mending (see Article 1). Shove and colleagues (2012) break down practices into three elements: meaning, material and competencies. They claim that practices are formed by the interplay between people and the elements that are available to them in the daily course of life. The study of how these elements come together to constitute practices provides

an understanding of societal practices that is distinct from the theories that follow the individual (Shove et al., 2012). Practice theorists follow the elements from which the practices are made, and still recognize that by performing the practice the practitioners "reproduce the practices to which they are engaged" as well as its elements (Shove et al., 2012, p. 22).

This is in contrast to rational-choice theories or behaviourist theories, which focus on identifying 'motivations' or 'barriers' as steering practices through instrumental approaches (Shove, 2003). The 'elemental' approach expands the understanding of user practices by taking into account the context and conditions in which everyday practices unfold (Shove et al., 2012). Thus, studying the relations between materials (humans and non-humans), meanings (our ideas about the practices) and competencies (ability to carry out a practice) enables us to understand the character of practices. Therefore, these elements or matters of a practice are not treated in isolation but in relation to one another and "conventions that are often taken to constitute the context of behaviour have no separate existence: rather, they are themselves sustained and changed through the ongoing reproduction of social practice" (Shove, 2010, p. 127).

Article 1 provides a detailed understanding of the element-based theoretical perspective of practice, and I will summarize these arguments. Through this approach, practices can be understood as routinized forms of behaviour that come together in the presence of the above-mentioned elements. Frequent repetition by the 'carriers' of the practice maintains the stability of the practice. When or if the elements change, the practices can either change or dissolve, depending on the habit-demanding nature of the practice (Shove, 2012). Therefore, it is important to understand the context through which practices emerge and to view them as having histories or 'careers'. Based on this understanding, Shove (2012) and Warde (2005) conceptualize practices as an 'entity' and a 'performance'. By the former they mean that practices are seen as larger integrations, wholes with relatively stable elements (Shove et al., 2012), whereas by the latter they refer to frequent, one-off actions performed in practice. In other words, entities "exist as a pattern which can be filled out by" performances consisting of "a multitude of single and often unique actions" (Reckwitz, 2002, p. 250).

Although Article 1 conceptualizes practices using this framework, when I began my fieldwork by immersing myself into the world of communal mending, I started to identify the constituted relations between humans and non-humans as they were produced through practice

(Orlikowski, 2007). In dialoguing with the literature mentioned above I further realized that practices as performance (or ongoing accomplishments of knowledge) had been under-researched and were unable to support the observations I was making in the field. I slowly moved towards understanding and an analysis of action as the source of knowledge and contemplated how practitioners became informed and reformed their practice through its very performance. In other words, practice soon became an onto-epistemic unit and a *philosophy* (Orlikowski, 2010). Therefore, I moved from understanding practices purely as entities to understanding them as performances. The next section details how this became theoretically possible.

2.3 FROM ENTITIES TO PERFORMANCES: KNOWING-IN-PRACTICE

As the previous section revealed, the different scholarly works on practice theory certainly have some central points of convergence. Moreover, the varying accounts of practice can all be traced back to Bourdieu's (1977) practice theory and Giddens' (1984) theory of structuration. Both have been greatly influenced by pragmatism philosophers such as John Dewey, Charles Pierce (see Bogusz, 2012), a point to which I return later in Chapter 4. However, within the literature disagreements have continued over the nature of embodiment, materiality and ontologies (Gherardi, 2017). While studies with an elements-based perspective have focused on the trajectories of practice-as-entities and their temporal and spatial reach in the configuration of practices (Shove et al., 2012, p. 7), practice as performances have remained under-researched. Moreover, the majority of the literature mentioned in section 2.2 takes practice as 'entities' or as larger integrations, wholes with relatively stable elements (see Shove et al., 2012). Yet when performing practices, one is faced with unpredictability, fluidity and frequent negotiations about 'rules' that are constantly reformulated with and during each performance of a practice (Gherardi, 2008).

In attempting to determine how to understand practice through its performances, I drew from practice theory scholars who mainly contribute to organizational studies, and their perspective of knowing-in-practice (Gherardi, 2000, 2008; Orlikowski, 2009, 2010; Nicolini, 2009). In this approach too, knowing and doing are inseparable. However, it understands knowledge as a situated 'observable phenomenon' (Gherardi, 2008), and practices become epistemic units that can be observed. Knowledge is seen as an ongoing accomplishment that emerges

through the performance of a practice (Gherardi, 2008). It is no longer taken as "something that people possess in their heads, but rather, something that people do together" (Gergen, 1985, p. 270 in Gherardi, 2008). Knowledge unfolds though a process of participating in everyday practices with a community of practitioners, in which reciprocal relations form between the practitioner and the materials in a situated manner (Gherardi, 2008). Thus, "the term practice is a *topos* that connects 'knowing' with 'doing'" (Gherardi, 2008, p. 517).

In order to understand how this happens, I drew extensively from Gherardi's (2008) theoretical perspective of 'knowing-in-practice', which has three characteristics of situated practices that help explain what she describes as situated knowledge. These characteristics are the indexicality, reflexivity and accountability of practices. By indexicality, Gherardi (2008) means that "comprehension is a constant and contingent achievement" (p. 519) through which practitioners understand one another easily and are dependent upon the constant negotiations and renegotiations of meaning that take place in the practice. In other words, the meaning of a certain norm may not hold outside the "concrete setting where it is applied" and thus is situated, localized and not univocal (p. 519). With this comes the second feature; that of reflexivity, the social interactions of through which practitioners are able to make sense of the world and make it comprehensible for other members of a community. Thus, practices themselves "reflexively display their nature as meaningful to social actors" through participation (Gherardi, 2008, p. 519). Finally, accountability refers to the tacit or 'taken for granted' assumptions upon which most social actions and interactions are based. These can be found in normal everyday actions that are not always explicitly stated or explained but unfold through the performance of the practice (Gherardi, 2008). In essence, with these three characteristics Gherardi creates an understanding of knowledge as a "collective knowledgeable doing" (2012, p. 3), which is situated in and can best be observed though deep emersion in the practice (see Chapter 4 and 5).

With those aspects in mind, Gherardi (2008) clarifies how the process of knowing-in-practice can be understood by explaining situated knowledge as being:

> situated in the body: here Gherardi (2008) attempts to overcome the dichotomies between the mind and body by looking at the body as a sensing body that knows through all its senses (Strati, 2007). The human body is then taken as *matter* and

knowledge is not limited to the mental but is sourced in all the senses (p. 521).

situated in the dynamics of interactions: knowledge is seen to unfold through interactions. These interactions are thus not limited to humans but also concern non-humans (for example, man-made tools, objects, artefacts, natural materials, stones, rocks, the environment).

situated in language: the language that is used to convey a message is also understood as being situated and created within a certain context. Moreover, doing can be seen in saying and vice versa. In other words, the situation is also produced through language; it does not only create the circumstance for it. Talking is then seen as a 'discursive practice' (p. 521): something not separable from doing.

situated in a physical context: "Space is not an empty container for situations". By this Gherardi (2008) places attention on the active engagement of practitioners in the performance of their practices. She points to the materiality of a situation and highlights the interconnections between the practitioners and the objects that make up a situation in which practices unfold and become organized, and knowledge is materialized.

In essence, the theoretical perspective of knowing-in-practice enables us to understand how practices organize knowledge. Moreover, it highlights the entanglement of knowing with doing, revealing the importance of studying the relations between humans, things, language, and context: all components that make up a practice, not merely form conditions for it (Gherardi, 2008). While an elements-based practice-theoretical perspective provided a skeleton framework from which to theoretically commence my work, it was the migration to the knowing-in-practice perspective that led me to discover the key concept of sociomateriality that began cementing the theoretical framework of this study, as I explain next.

2.4 FROM SUBSTANTIALISTS TO RELATIONALISTS: THE SOCIOMATERIALITY OF PRACTICES

So far, I have presented two sets of contemporary perspectives on practices of practice theory scholars. Common to both is the recognition of the materiality aspect of social practices. However, they also have differences. The first is the assumption of a realist or substantialist ontology (see Shove, 2012; Schatzki, 2002; Reckwitz, 2002) which argues that humans and non-humans exist as complete and "separate entities that interact and impact" on each other (Gherardi, 2017, p. 39). Materials are seen to merely mediate human practices. On the other hand, a relational ontology, as in the works of scholars such as Gherardi (2008, 2017), Orlikowski (2007, 2009) and Nicolini (2009), assumes a "constitutive entanglement of the social and the materials" in which things and humans are not *a priori* entities (Gherardi, 2017, p. 39). This means that things or materials and humans are not "pre-formed substances" but "per-formed relations" constituted or produced through practice (Orlikowski, 2007, p. 1438). Here, ways of knowing and doing are inseparable from materials, which are further inseparable from social forces and are seen together as the 'glue' that holds all practices together (Gherardi, 2017). The works of the latter scholars thus gave rise to the conceptualization of a socio-materiality of practices rooted within a knowing-in-practice perspective, and had a profound influence on the present study.

Within this realm, 'materials' refer to all objects, things, artefacts, technologies, the human body, organic and inorganic objects, and so forth, that form part of our daily lives (Orlikowski, 2010). 'Social' refers to shared meanings, symbols, cultural referents and/or discourses. "Both material and social forces are mutually implicated in bringing forth everyday activities" (Fenwick, 2015, p. 87). This conceptualization of practices overcomes the dualism between mind and body, social and material, nature and culture, and human and non-human, emphasizing knowing from within practice through an ongoing process of "performative accomplishment and becoming" (Gherardi, 2017, p. 39). It does not consider the world to be composed of separate social and material elements: it sees them as intertwined and entangled. The term 'entanglement' refers to the interwoven relationship between the social and material elements that make up the world. In this instance, reality does not exist prior to experience; it is made, shaped and reshaped within the performance of practices (Gherardi, 2017).

This concept, situated within a relational ontology (see Chapter 4), does not refer to engagements between humans with non-humans, or

social with material as interaction, but as 'intra-action'. Gherardi (2017) borrows this term from Karen Barad (2007) in order to bring to light an egalitarian model for understanding agency. However, the term 'agency' is seen as rather problematic for referring to non-humans. This is due mainly to the long sociological history of the concept. Over the years sociological scholars have continued to contemplate on questions of where individual intentionality ends and the role of pre-determined power structures begin in the social reproduction of society (otherwise referred to as the agency vs. structure debate; see Giddens, 1984). Several scholars even choose not to use it. However, for both Orlikowski (2010) and Gherardi (2017), agency is conceptualized as relational and distributive rather than an individual phenomenon. Therefore, they do not see humans and non-humans as merely facing each other when they come into contact, with humans asserting power over non-humans. Instead they understand human desires as being 'infused in things' through their entangled intra-actions (Fenwick, 2015). They state that through the engagements of non-humans with humans, effects get created through the mutual affectivity of both in the performance of a given practice. In other words, agency results from both humans and non-humans mutually shared interdependent relationship wherein they jointly perform practices in relation and reaction to their various capacities that get sensed over time.

Put simply, the ways of doing and knowing are not separated from the material or the social forces in the enactments of any practice. Rather, body, material and discourses are all "expressions of the same sociomaterial world" (Gherardi, 2017, p. 42); knowing bodies and things-of-knowledge are co-constituted through an enactment of practices simultaneously entangled in the social and the material world. Things-of-knowledge are then "defined as things-in-phenomena and not as things-in-themselves" (Gherardi, 2017, p. 41). Therefore, reality or knowledge is not thought of as static or as existing outside the objects; knowledge emerges through subject/object engagements and is ongoing (Gherardi, 2017). Hence, meaning cannot be separated from matter, nor "do they have inherently determinate boundaries and properties; rather, they are constituted as relational effects performed in a texture of situated practices" (Gherardi, 2017, p. 40). Emphasis and importance are thus placed on knowledge that emerges through the intra-actions of humans entangled in a sociomaterial world. This characterization is further reflected in the intentional choice of articulating the term 'sociomaterial' without a hyphen (Gherardi, 2017). Through their mutual engagements, the

"fragments of knowledge embedded in objects" result in practical knowledge (Gherardi, 2012, p. 25). Therefore, knowing is not understood as a characteristic or feature of only the mind; it is seen as emerging in sociomaterial practices.

When understood in this way, it is also possible to explore the human body as a site of knowledge. Gherardi (2012) uses the term 'embodiment' here to explain how knowledge develops through the engagement of the body in the performance of a practice entangled in a sociomaterial world. Thus this knowledge is not seen as contained in the mind before the performance of a practice. It is seen as being made over time in the repetition of practice through the immersion of the sensing body, which is entangled with the material. Therefore, over time, practical knowledge becomes embodied, and through a reliance on sensible knowledge, the body is able to bring the practice into being (Gherardi, 2017). By sensible knowledge, Gherardi (2012) refers to "how people use their sensibilities" and become able to 'employ their bodies' while performing a given practice (p. 50). In such a way, the body's ability to judge and make sense of the world is also reliant on the five senses of the body; not just the mind. The affect created through the material intra-actions sensed by the training of the body results in or creates effects that "generate dialectic relations with action" (Strati, 2007, p. 62). Thus, Gherardi (2012, 2017) focuses on the interconnected mutual dependencies of aesthetics, affectivity and emotions in practices. In other words, knowledge is not contained in the mind alone but in a process of bodily engagements, of trial and error, of sensing and the sentient: the "perception of the world is always embodied and the perceiving mind is an incarnate mind" (Gherardi, 2017, p. 42).

Gherardi (2017) further points to the dual nature of embodiment as both subject and object while performing a practice. As the sociomaterial intra-actions of body with matter are constantly shifting, the situatedness of the practice, as an enactment of knowledge, becomes pronounced. When knowledge is understood in this way, its distributive nature is also acknowledged (Henke, 1999). Therefore, how we know what we know is not limited to just the mind; various bodies intra-acting with various things create a variation of ways of knowing and doing (see Article 2). Knowledge is therefore understood as emerging from within practice, entangled with materials. Moreover, materials are not static but are recognized as open and are constantly redefined, reshaped and altered while in use and are thus understood as ever-changing and becoming (Shove, Watson, Hand & Ingram, 2007; Ingold & Hallam, 2007; Gherardi, 2017).

A relational onto-epistemological stance on practices places focus on the inseparability of humans and non-humans, mind and body, and material and social and knowing emerges from within (Gherardi, 2008). Such an emphasis makes the complexities of practices visible in every performance (see Articles 2–4). The next chapter discusses how mending can be reinterpreted in this light.

3

CONCEPTUALIZING MENDING: CREATIVITY, LEARNING AND TASTE IN AND THROUGH SOCIOMATERIAL PRACTICES

"You always learn something new. Every garment is different, and every mend is different. For example, these two pairs of trousers both have holes. But one pair is a knit fabric, so it is stretchy and the other pair are jeans, so not stretchy. So, you have to attach the patch in slightly different ways because one needs a bit of a movement. The patches are the same but when I attach them I will do so with a different stitch for each. Flexibility is different and you can use different types of stitches to make it more flexible. You learn every time and understand the fabric. I have been fixing clothes for six years and have done it wrong before so that's why I know how to do it now!" (Vernacular mender, Auckland, New Zealand, 13/08/2017).

As mentioned in Chapter 1, majority of the studies on garment mending have approached mending practices through rational choice theory-inspired deliberations. Here the pre-dominant belief remains that action is rationally determined by knowledge, seen as sourced in the mind alone but not in practice. Therefore, when trying to reduce the 'fastness' of fashion consumption, solutions for increasing mending tend to focus on filling information gaps through media campaigns, revising education curricula or improving and increasing the eco-labelling of garments (see Article 1). Another approach of mending research is that the production of robust modular garments is key to extending the use time of clothing (Gwilt, 2014). Thus, a significant reliance on design-led solutions is also sought. Although these recommendations do seem 'rational', but are they able to fully capture, understand and address the complexities of practices?

Rationalistic approaches such as these often stem from the overarching belief that if certain cognitive components are altered, people will be 'nudged' into changing their practices and be steered in the 'right' direction (Hargreaves, 2011). However, in the pursuit to alter the *perspectives* of individuals, existing *practices* of garment mending have remained under explored. Prior research on mending has also not cleared confusions over what forms part of mending and how is garment mending actually under taken. Lacking clarity in this domain has further contributed towards the misrepresentation of mending. Here practice theories can make an entrance and offer certain insights that could be utilized to expand current understandings of garment mending practices in communal events and how to possibly support their emergent nature.

By conceptualizing everyday mending practices as entanglements of a sociomaterial world, we are able to identify both the subtle and pronounced effects of being in practice. Although an elements-based understanding of practices, as introduced in Chapter 2, was useful for tracing the 'career' of mending practices required for building an understanding of the matters constituent of mending (see Article 1), scholars with this perspective have under-researched the dynamicity that lies in the performance of practices. Though practices are understood as routinized (Reckwitz, 2002) it is important to realize that they do not always remain static, but that it is within these very routines that moments of dynamicity lie. In other words, practices can be understood as both dynamic and static at the same time. Realizing this, my research moved towards a 'knowing-in-practice' conceptualization of practices. As explained in Chapter 2, this made the sociomateriality of practices visible.

Grounding the theoretical foundation of this dissertation upon a soci-omaterial practice theory framework thus helped develop three further sub-frameworks, from which Articles 2–4 drew. Through a continuous dialogue between the overarching sociomaterial theoretical framework and the gathered data, this study identified three effects resulting from the produced affectivity of sociomaterial practices: creativity, learning and taste. Each effect then provided a conceptual framework through which to approach, analyse, understand and conceptualize how exist-ing mending practices were performed, learned and sustained in com-munal mending events, as evidenced through Articles 2–4. The following sections introduce and explore these sub-concepts, masked as effects of being in practice at length.

3.1 FINDING CREATIVITY IN AND THROUGH THE MUTED AND MUNDANE

By shifting the focus from individualized cognitive approaches to knowledge, the sociomaterial context affecting practices become visi-ble (Tanggaard, 2013). Everyday improvisations made when in practice are not deemed unnecessary but recognized as creative. In other words, the situated and material bases of creativity that emerge through daily practices become known. By acknowledging the sociomaterial context, change in practices is not sought through either a reliance on 'exceptional individuals' or 'extraordinary processes' (Tanggaard, 2013). Instead, it is understood as an ongoing process of adaptations and improvisations in the making of the world. According to Tanggaard (2013) this process in its entirety can then be regarded as creative. She states that when we focus on the characteristics of practices and not on individual cognition, the overarching understanding of the improvisations made in practices comes to be understood as creativity.

Tanggaard (2013) raises three aspects of creativity. In the first in-stance, she states that creativity is an ongoing process of "making the world" in everyday life (p. 22). In this way, humans and their ways of do-ing or their practices cannot be disconnected from the environment in and through which these practices come to be. Once this is established, creativity is seen as emerging in the "changes in participation in social practices in everyday life" with creativity involving "a kind of re-making and transformation of these social practices" (p. 22). As practitioners con-tinue to develop their practices over time, creativity emerges. Tanggaard (2013) stresses the importance of breaking away from the individual cog-nitive basis of creativity to one that recognizes its "collective realization"

(p. 22). Tanggaard (2013) also highlights the second aspect of creativity as being that of including and understanding through both exceptional and everyday mundane practices. Inspired by Ingold and Hallam (2007) she states that our daily lives are filled with improvised moments in which creativity emerges. She gives an example of pedestrians who on a daily basis constantly adjust their ways of walking as they pass through streets and roads. Each day involves new situations and crowds of people all walking on the same path resulting in adjustments to how we walk in order to accommodate the whole. These adjustments are not set; they are made as we walk and our ways of doing/walking are constantly altered. Although the way in which we do something in our daily lives, be it walking in the street or mending garments, may seem very ordinary, the "maintenance of our place in the world requires numerous adjustments, improvisations and innovation, both exceptional and mundane" (Tanggaard, 2013, p. 23). Therefore, no new practice is truly new nor is creativity purely a creation of something new. It is built upon existing ways of knowing and doing. A close relationship between the old and the new can be seen in creativity and results from "the gradual erosion of current forms of natural/cultural kinds of life" rather than from isolated ideas generated in exceptionally 'genius' individual minds (p. 23–24). Therefore, creativity is a "dynamic conception of all individuals as creators with the ability to modify, adjust, and change the environment in which they find themselves" (p. 24).

Acknowledging the inseparability of the individual from the collective, of thinking from doing, and of old from new leads us to the third aspect of creativity – the material aspect. Here, ways of doing are not removed from the material world but are seen as being entangled within it. By designers as an example, who are often thought to be creative and authors of 'new' and unique creations, Tanggaard (2013) aptly states "a design is nothing without material" (p. 24). In claiming that all ideas require and are interlaced within materials, she brings our attention to how new ways of knowing and doing are primarily tied to old ways that are materialized in artefacts, tools, objects and so forth. Ways of knowing and doing are thus not understood as resulting purely from the mind, but in relation to the material environment. As the body engages with materials, through the give or resistance of the materials, a practice is carried forward. In such a way the newness of a practice continuously unfolds as it responds to presently known ways of doing and being in the world. Therefore, creativity is deeply anchored in materials.

Tanggaard (2013) further presents the various manifestations that creativity takes by referring to how designers often create something

through a process involving several prototypes, maps, notes and so forth, until the produced artefact takes form. Therefore, creativity includes all the materials that lead up to the artefact's creation. Moreover, the produced artefact is never complete, for once in use it will continue to become, or as Tanggaard (2013) calls its 'materialized becoming', denote the ever-changing and ongoing process of materials. In such a way she hints at how people make and create in relation to the 'affordances' of materials in their daily lives. Thus, creativity includes "the materials that are worked with and that quite concretely comprise that which is created as well as the continually developing creations of the products we produce" (p. 24).

Acknowledging these entanglements of humans with materials results in recognizing how bodies attune to the language of materials. Materials guide us into taking already existing ways of doing and knowing developed by others "as starting points for new creations" (Tanggaard, 2013, p. 21). In this way, creativity is always "fundamentally relational" (Tanggaard, 2013, p. 25). By rejecting notions of creativity as something radically new and arising from a purely individual cognitive process, Tanggaard (2013) sees everyday improvisations in practices as creative. She places emphasis on the relationship between the social, material and situated nature of everyday practices and identifies creativity as adjustments that are made in dynamic ways by people in their everyday seemingly routinized ways of doing. The world is then "in a constant state of becoming rather than being characterized by abrupt and sudden innovations" (Tanggaard, 2013, p. 26). When we recognize creativity as part of everyday life, we are in a sense identifying the effect of practice and what being in practice enables practitioners to do. The next section explores how ways of doing and being in practice result in practitioners learning.

3.2 UNDERSTANDING LEARNING IN AND THROUGH DOING

Moving away from a purely cognitive-based understanding of behaviour has enabled practice theorists to bridge the gap between doing and knowing. The literature has created a rich understanding of how social order arises from the everyday interplay between humans, things, artefacts and so forth (Alkemeyer & Buschmann, 2017). Although practice theory scholars recognize the importance of materiality, disagreements remain over the role of materials as either a mediator of practice or constitutive of practice (Gherardi, 2017, p. 39). Theorists taking a sociomaterial practice theoretical stance however assume a relational ontology in which materiality operates within a framework of 'distributive agency'

(Gherardi, 2017; Orlikowski, 2009; Alkemeyer & Buschmann, 2017). This supposition does not see practitioners as 'dependant variables' who work in unchanging routine ways to keep a practice going. Nor does it see them as 'autonomous actors' who come into contact with "independent objects with given properties" that are subordinates of "human intention and design" (Fenwick, 2015, p. 84–91). Instead, humans and non-humans are seen as mutually enabling one another to bring forth practice and to remain in it. The focus then shifts to how practitioners (become able to) recognize and respond to their sociomaterial environment. In other words, a second effect that unfolds through the entangled interplay between humans with non-humans is that of learning.

A sociomaterial theoretical stance on practice does not take practices as activities that are led by the mind alone. Instead, it views practices as enactments of knowledge that are entangled in a sociomaterial context which enables certain practices while restraining others. Context is thus of prime importance when trying to understand how learning takes place and cannot in practice be separated from the practitioners. Learning varies from one context to the next or is situated, contingent and entangled within sociomaterial dynamics (Fenwick, 2015). Lave and Wenger (1998) have argued that learning results from actively and collectively participating in practices. They claim that learning is not purely in the minds of individuals, but is "an integral and inseparable aspect of social practice" (Lave & Wenger, 1998, p. 31). Theorizing learning as emerging through the collective enactments of people in everyday life or a 'community of practice' has enabled a powerful shift in the conceptualization of learning. However, one of the weaknesses of this concept lies in its under-emphasis of the dynamic relationship between humans and non-humans in the actualization of practice. Moreover, the concept has been criticized for its oversimplified notion of context as an "abstract container" for learning (Fenwick, 2015, p. 83).

Conversely, a sociomaterial understanding of practices does not recognize context as a given, but sees it as emerging through the very engagements and enactments of practitioners while in practice (Fenwick, 2015). By zooming in on the nuances in the interplay of humans with non-humans, the way in which context gets shaped also becomes recognized as part of learning (Fenwick, 2015). Context is thus not a given space or thing; it is constructed through the entanglements of humans with non-humans, which equally and continuously act on one another to bring forth knowledge of what is (Gherardi, 2009a). In anchoring materiality, learning processes are thus not centred on human cognitive

processes as primary receptors and enablers of practice. Neither are contexts and objects understood as containers with meanings assigned to them by the sole will of the human. Instead, the "material world is treated as continuous with and in fact embedded in the immaterial and the human" (Fenwick, 2010, p. 105).

Therefore, such an illustration of learning enables the recognition of not only the social but also the material forces, and its inseparability from the social aspect of practice. This allows an egalitarian or 'distributive' approach to learning, which understands material and social forces as "mutually implicated in bringing forth everyday activities" (Fenwick, 2015, p. 87). In such a position, learning becomes about paying attention to the attunement of the body with the material, and to how subtle fluctuations are made in even everyday practices (Fenwick, 2015). Therefore, learning is a matter of tracing how, through human and non-human 'intra-actions', responses and 'even interruptions' emerge in practice (Fenwick, 2015, p. 91). This further leads to recognizing the 'tinkering', minor shifts, interruptions and disruptions that arise within and through sociomaterial entanglements while in practice (Fenwick, 2015).

By shifting the focus onto the unpredictability of practices, a relational understanding of learning begins to take shape (Orlikowski, 2009). This emphasis then further challenges boundaries and dichotomies between learning and doing and moves towards recognizing what can be understood as learning-in-doing. In practice, practitioners learn with and through their sociomaterial entanglements and mutually co-constitute practices into being. Therefore, learning cannot be understood as a static result of 'acquiring' information. It emerges in and through participation in "dynamic and always-shifting sociomaterial configurations" (Fenwick, 2015). Such an approach allows for understanding practices as being contingent while equally recognizing moments and opportunities of change that arise from and within practice. This further helps us recognize learning processes that emerge in the mundane practices of our daily lives, which research often overlooks. Acknowledging the fluidity, uncertainty and material entanglements of everyday life delivers broader understandings of learning in mundane practices such as mending. Realizing the significance of overcoming distinctions between formal and informal learning is then of prime importance, in particular when addressing problems associated with garment use practices. As Article 3 provides details of how such perspectives can be of use, I now turn to the final effect that emerges through practice before moving on to Chapter 4.

3.3   RECOGNIZING TASTE IN AND THROUGH SOCIOMATERIAL ENTANGLEMENTS

Perhaps one of the key contributions of the theories of practices has been the catalysation of the academic debate on overcoming the dichotomies between knowledge and practice when examining everyday practices. In trying to understand practices, the sociomaterial perspective in particular has enabled the recognition that knowledge is not only cognitive but also sensible (Gherardi, 2012). This has also resulted in developing an understanding of practices performed "through a 'sapient' body that knows through the senses", and learns to manage the body and its ability to "act in the world" (Gherardi, 2012, p. 65). Sensible knowledge is then anchored in the social, materiality and discursive, and through their entangled interplay, various ways of doing emerge (Gherardi, 2012). As previously mentioned in Chapter 2, Gherardi (2017) refers to this phenomenon as embodied knowledge, or embodiment. Acknowledging how ways of doing or practical knowledge come to 'accumulate in the body' through the interplay between the body and the context, social, material and discursive aspects helps create an understanding of practical knowledge that becomes performed into being. The discussion thus far has helped shape an understanding of how practices are performed and learned by analysing two of the three effects of being in practice (creativity and learning). However, what remains to be explored is how practices are sustained. In order to develop an understanding of this process we must look at the third effect resulting from being in practice, i.e. taste.

In this section, I introduce the concept of taste as a reflexive practice to build an understanding of how practitioners continue to remain in practice. I draw from sociologist Antoine Hennion's writings on taste (2004, 2007) as a reflexive activity to further this discussion. Although classical sociological theorists such as Bourdieu (1984), Veblen (1899) and Simmel (1997) have extensively conceptualized taste, their approach is centred on an understanding of taste as a mechanism that links social practice with class structures. In this tradition, and according to Bourdieu, taste is principally understood in terms of the various dispositions held by individuals and social groups in accordance with their income and class within societies. Therefore, while individuals might claim that they are freely choosing certain type of things such as an art piece, clothing, or food item, it is believed that they have been socialized into making those judgements since birth. Depending on the income group the individual belongs to will determine their taste for the type of object and so the wealthy will have a taste for more 'refined objects' while

the non-wealthy will imitate the ways of the elite (Bourdieu, 1984). Here taste can be understood as a mechanism through which social hierarchies and class "distinctions" are produced and perpetuated in class stratified societies (Bourdieu, 1984). This way of unpicking peoples' everyday practices of selecting goods situates taste as a field of continual class conflicts and disagreements between the privilege of the elite upper class (or the 'star' designers) and the rest of society.

Although I have certainly not provided an exhaustive examination of classical theorists it can still be inferred that social determination plays a strong role in their works and has influenced various studies on consumer culture where taste has been synonymised with 'choice' or 'preferences' (Arsel & Bean, 2012). These 'preferences' or 'tastes' are then understood as signs reflecting and symbolizing the likes or dislikes of people. However, one consequence of this approach, as pointed out by Gherardi (2009 b), is on privileging what gets said over what is actually done. On the other hand, Hennion (2004) takes an alternative non-reductive approach and argues that taste is a reflexive activity, one that is constructed over time. He argues for a move towards focusing on inquiring what people actually *do* and conceptualizing taste as a practice. Hennion (2004, 2007) developed an understanding of taste not as "something people have (or do not have) but as 'something people do'" (Bentia, 2014, p. 175). Therefore, by drawing on Hennion's (2004) work on taste, not as the privilege of the elite or the esteemed 'star' designer but as a practice that gets built over time, we overcome the dichotomies between 'thinking' and 'doing' and professional and non-professional practices. Such a switch then allows an alternative understanding of how 'amateur' practitioners/non-professionals reflexively become able to construct a relationship with their practice.

Hennion (2004) states that taste is a practice that is created over time, it is not a feature inherently contained in people and that it cannot be found within objects. Instead, it is mutually built through the engagements of the body with materials. This, he describes, enables practitioners to relate to their practice. When taste is understood as a practice, its performative and relational aspects can be identified and understood through the collective participation of practitioners in a specific practice. Secondly, recognizing taste as a reflexive practice makes it no longer a 'passive social game' but an active practice that can give feedback to practitioners (Hennion, 2004, p. 131). Thus, in establishing taste as a reflexive practice, Hennion (2004) recognizes the practices of non-professionals or 'amateurs', as he coins them, as intelligible.

Gherardi further acknowledges the role that aesthetic knowledge and practitioner subjectivity play in this process (2012, p. 65). She then explains aesthetic knowledge in terms of an ability to discern, which is constructed through individual skill training and collective engagements. Hennion (2004) and Gherardi (2009 b, 2012) both state that taste therefore rests on learning and is both an individual and collective accomplishment. By this they mean that the individual learns to judge whether a practice is good or bad, right or wrong, through a framework of normativity provided by the collective. Linked to this is the feedback the individual receives from the material through consistent training of the sensing body entangled in the material. This feedback further improves the ability of the body to respond reflexively and over time people "cultivate practical knowledge through continuous and reflective engagement with objects, doing and meanings" (Arsel & Bean, 2012, p.913).

For Hennion (2004) the bodily experiences and knowledge that are constructed are 'corporeal' knowledge. Although Gherardi (2017) and Hennion (2004) use two different words: embodied (Gherardi, 2012) and corporeal (Hennion, 2004), their treatment of the body and its ability to train the senses is essentially the same. Therefore, like Gherardi (2012, 2009 b), in describing the role of the body, Hennion (2004) also emphasizes moving beyond understanding knowledge as something pre-contained within a body. He argues that through repeated practice and interactions with materials, the body itself becomes known to the subject. It learns to become open to recognizing and sensing the effect of the sociomaterial, experiencing it reflexively, and responding to the feedback from the material and the collective. Over time, as the body becomes more proficient in sensing, its "capacity to recognize what others recognize, and to share effects felt with other bodies" in a given practice becomes possible (Hennion, 2004, p.137). Knowledge is thus not 'incorporated', but 'corporated' (Hennion, 2004).

Taking a reflexive approach to taste means focusing on the following three aspects (Gommart & Hennion, 1999; Gherardi, 2009 b):

> PASSION: In acknowledging the practices of non-professionals, Hennion (2004) shifts from understanding practices as an unconscious reproduction of action to an active engagement of practitioners in the object of passion, i.e. practice. Therefore, attention is paid to how collectively people are actively able to feel and achieve this passion through deploying various processes and procedures.

Events: When practitioners are in practice, the effects that are created over time in and through their engagement are identified. These effects are not considered in isolation but in relation to the 'event' or the sociomaterial environments/context to which they are tied.

Sensing: Through the entanglements of the sensing body and the affectivity of materials, a range of ways of doing arises. These are constantly improved and are heterogeneous in nature. This means that taste does not become a property of the amateur; rather an active accomplishment of the amateur whose "capacity to transform sensibilities and create new ones, and not only reproduce an existing order" becomes recognized (Hennion, 2004, p. 132).

When practices are understood in this way, ways of doing are then understood as ongoing and under continuous improvement. Thus, these ways of doing do not exist prior to engagement but result in and through the collective engagement of practitioners in a specific object of passion, i.e. practice. Exploring practices in this way adds rich layers of comprehension to how performances of practices are not only dynamic but how they constantly add to re-defining, reshaping, refining and enriching the very entity of a practice. Drawing from the above-mentioned three sub-frameworks, each empirical article of this dissertation (Articles 2–4) thus revealed and reflected the complex and multi-dimensionality of mending practices. Before delving deeper into discussion on how the insights generated from these conceptual frameworks can be of use (see Chapter 6), the next chapter explains how the data for this dissertation were gathered and analysed.

4

METHODOLOGY: NAVIGATING AND MAKING CONNECTIONS THROUGH A MAZE OF CLUES

"The world does not tower
above us like some colossus of
unchangeability; it reacts to us."
(Tanggaard, 2013, p. 24).

This chapter outlines how the present doctoral research was conducted and illustrates the principles that helped guide the research process through to completion. In presenting the research procedures and analysis protocols that were undertaken, the chapter serves as both the backbone of the work and a handbook on how to read the appended published articles. Thus, the chapter commences by delineating the research paradigm and its impact on the research design within which the work is positioned. Following from this, I present an exploration of how ontological and epistemological foundations guided this multi-sited ethnography of the practice of garment mending. Then an overview of the chosen methods, a description of the sites at which the data were collected, and the data themselves is presented. This is followed by a discussion on the analysis process with a concluding note on axiology.

4.1   RESEARCH PARADIGM: WHY PRAGMATISM?

The conceptual lens through which a researcher develops their philosophical way of thinking i.e. the research paradigm, is also the lens through which deeper understandings of the nature of a given phenomenon are built (Mackenzie & Knipe, 2006). Philosophical assumptions are of utmost relevance in research as they help position it and determine its methodological elements. Paradigms are often understood as the net that helps capture and combine the epistemology, ontology and methodology needed to guide a study (Collins & Stockton, 2018). This foundation consequently bleeds in through the chosen methods and analysis of the collected data (Mackenzie & Knipe, 2006). In this section I will introduce the principals of pragmatism and discuss how positioning my research within this paradigm was relevant.

In the early twentieth century, a number of key classical philosophical thinkers including Charles Sanders Pierce, John Dewey, William James, George Herbert Mead, shaped social thought as distinct from positivism and constructivism (see Jackson, 2016). Central to their thinking was the commitment to rejecting the dichotomies between theory and practice, mind and body, and knowing and doing through understanding knowledge through the consequences of day-to-day practices. In other words, a pragmatist philosophical position was birthed that did not believe in one absolute truth, but argued that truths are pursued through continual inquiries into lived experiences, and unfold progressively (see Dewey, 1938).

Pragmatism argues for understanding a given problem in terms of its relational interdependencies as opposed to dividing the phenomenon

into various components to be studied in isolation (thus avoiding reductionism). In order to do so a researcher begins by studying the consequences or the effects of a practice (Dewey, 1938). Pragmatism, therefore, takes a problem-solving, material logic and moves away from *a priori* reasoning by examining how 'things are' (Dewey, 1938) as opposed to how things ought to be. This means that any inferences made are open to constant revision. By taking such a non-moralistic and non-normative philosophical positioning, pragmatism understands the world through lived experiences. Therefore, not only is the importance of practice acknowledged but it is further grounded in consequentialism and fallibilism (see Jackson, 2016). Pragmatism allows researchers to make inquiries by studying day-to-day practices and providing insights that may have practical implications. In a way, the general principles of pragmatism are pluralistic and non-reductionist as they "give us a pluralistic restless universe in which no single point of view can ever take in the whole scene" (James, 1897/1956, p. 177 in Rumens & Keleman, 2016). Thus, the researcher is able to deliver notions and insights while theorizing on the phenomena under study, based on the data and understanding available to them at the time, allowing for a more democratic approach to conducting research.

Moreover, during ethnographic fieldwork, a researcher is not obliged to cover all of 'reality', for knowledge is never complete and unfolds through a constant process of inquiry (Watson, 2016). This inquiry is then not free from the subjective knowledge of the researcher but requires participation and moves away from a 'spectator's' view of research and gives space for the researchers' reflexivity (Marcus, 1995). Hence, human action is not separate from knowledge; it becomes central to knowledge formation and a process of "continual reorganization, reconstruction and transformation of experience" takes shape (Dewey,1916, p. 349 in Jackson, 2016). Therefore, unlike the realist views shared by positivists who see reality as existing outside our understanding, or idealist constructivists for whom the world is constructed purely on the basis of human assigned meanings (see Morgan, 2014), pragmatism offers an alternative understanding.

As this dissertation is a study of both a practice that was emerging in an erratic manner and had scarcely been researched and is article based, following the tradition of pragmatism or 'mood' was the obvious choice. The results and theorized conclusions regarding each published article reflected the understanding (through marrying theory with practice) I had developed of the practice of mending at that time. The work

presented in Articles 1–4 can thus be understood as being rooted in a pragmatist style of thinking. Furthermore, the Practice Theory scholars who have influenced the theoretical framework curated for this study were also primarily inspired by and anchored within pragmatism philosophy (Buch & Elkjær, 2015). Grounding my work philosophically in pragmatism, theoretically in practice theory and empirically in multi-sited ethnography therefore gave relevance and strength to the choices I made throughout my research journey. The braiding of theory with methodology thus shone through till the analysis of the data, using threads from pragmatism, as I will explain in detail later in this chapter. In the next section, I elaborate on the ontological basis of this study to clarify the methodological choices made during the study.

4.2 ONTOLOGICAL FOUNDATIONS

By seeking to establish 'what is?' or the science of being, ontologies help researchers understand and contemplate the phenomenon they are studying. Therefore, ontologies are key to effectively framing ones' research design (see Table 1). The research questions asked, the chosen methods, the analysis process, the subsequent conclusions drawn, are therefore all built upon the ontological foundations positioned within the research paradigm. Hence, it is relevant to begin by understanding the nature of the phenomenon and then to decide on the methods most suited for exploring it (Jackson, 2016). This section provides the ontological reflections that were in the background, guiding the research process throughout its course.

Influenced by pragmatism and a practice-based theory way of thinking, this study takes a relational ontological stance which rejected

Paradigm	Pragmatism
Ontology and Epistemology	Relational
Theoretical Perspective	Practice Theories
Methodology	Multi-sited Ethnography
Method	Mixed Method: Observations, Interviews, Short Surveys, Web research
Analysis	Abductive

TABLE 1: Research design.

the positivists' notion of 'reality' and knowledge as complete and external (Gherardi, 2009 b; Jackson 2016). In other words, it challenges the belief that universal truths, or 'facts' exist as fixed absolute forms of knowledge, independent from the mind of the researcher. Instead it recognizes the relationship between the cultural, historical, social and material dependencies that are interlaced and woven together to create meaning in a situated manner (see Dewey, 1929). Rejecting realism, a relational ontology is not on a quest to establish 'facts' or one 'truth' as existing before the study (Jackson, 2016). Its interest rests in the creation of meaning in a world that is regarded as ever changing through a process of becoming, is dynamic, situated, and imbued in relations that are time- and context-specific (see Dewey, 1929; Ingold & Hallam, 2007; Gherardi, 2009 b; Marcus, 1995). Knowledge is therefore not the end goal; it is an ongoing emergent process that is not separate from the researchers' prior experiences. For this reason it is important to acknowledge that any insights emerging from this study are also dependent on the research model itself, the development of which is in turn dependent on the subjective knowledge of the researcher (Jackson, 2016). Thus, knowledge is not fixed, because "nature is not an unchanging order unwinding itself majestically from the reel of law under the control of deified forces. It is an infinite congeries of changes" (Dewey, 1910, p. 71 in Jackson, 2016).

In this regard, knowledge is seen to emerge, develop and continuously become (Ingold & Hallam, 2007). It is not protected from speculation and is contingent. In the same vein, the knowing of the subject under study is understood equally through doing (lived experiences) in a sociomaterially and discursively sustained world (Gherardi, 2017). However, if the world is constantly changing and unpredictable, how are we to make sense of it? Troubled by this question arising from my ontological stance, in the next section I reveal how the epistemic roots of pragmatism helped resolve this and developed my thoughts, as mirrored in the gradual articulation of the research questions addressed by Articles 1–4.

4.3 EPISTEMIC ROOTS

Although never explicitly stated in the literature, scholars of practice-based theories and pragmatism share some core thoughts (Bogusz, 2012). Dewey's notion of experience in particular shares many similarities with the way in which practice theorists conceptualize practices. The basic unit of analysis in both traditions is *practice*, and both give it epistemic relevance and importance (Bogusz, 2012). In other words, when

contemplating how we know what we know, both pragmatism and practice theory reject the dichotomies between body and mind or knowing and doing. Practices or experiences are central to the understanding of the world and the creation of meaning. Therefore, "experience is not antithetical to knowledge; rather, knowledge is part of experience and contributes to its enhancement" (Rumens & Keleman, 2016, p. 11).

In essence, human activity is understood in relation to its entanglements in a sociomaterial world. With this in mind, making 'sense' through our senses or intelligibility in practice is not only cognitive but also entangled in bodily sensuous experiences. Experience is not outside the cognition of the individual; it emerges at the same time through a process of continuous 'intra-actions' in the world (see Barad, 2003, 2007). Therefore, in order to understand a certain phenomenon, we cannot take a standby observer role for we are already immersed in the world. Pragmatism and practice theories thus converge as they place focus on the relational and "interactive flow between the individual, the group and the material environment" (Rumens & Keleman, 2016, p. 14). Thus, knowing is not separated from the corporeal or the material; instead it is a part of feeling, sensing, thinking, experiencing, and responding reflexively in a given context.

This influenced how my own thoughts shaped as I studied the practices of garment menders and their ability to respond, and the effects created through their interactions with materials and the social world in situated ways became visible. They became the object of interest addressed in Articles 2–4 of this dissertation. In the next section, I show how the philosophical and theoretical strands tied in with the methodology and the choice of methods undertaken in this research.

4.4 METHODOLOGY AND METHODS: MULTI-SITED ETHNOGRAPHY AND THE LOGIC OF INQUIRY

In the 19th century, ethnography was developed by cultural anthropologist as a methodology for studying and describing foreign 'tribal' cultures (Malinowski, 1922). By the 1950s, sociologists also took to this anthropological tradition and began using ethnography to study social patterns and practices in cities (Hammersley & Atkinson, 2007). Over the years ethnography has been widely used in the social sciences and humanities for researching human behaviour. Most recently ethnography has also spread to other disciplines such as design and the arts. This diversification to varying disciplinary (onto-epistemic) contexts has resulted in a variety of ways for interpreting and approaching ethnography. In its traditional

anthropological sense, ethnography is a study of the culture of a group of people. Quite literally 'ethno' stands for people and 'graph' refers to a picture (Wolcott, 1999). Essentially, ethnography is the process of studying and understanding ways of living in a given context. Ethnographers use various methods of inquiry guided by certain principals that result in the written production of an account of the ethnographic project/data (LeCompte & Preissle, 1993). In ethnography, information is gathered first-hand by the researcher by observing peoples' actions, asking questions through formal or informal interviews, listening to what is being said by people, participating in the practices and daily routines of those being studied for extended periods of time in a given single-site (Hammersley & Atkinson, 2007).

However, the last few decades have seen an increasing interest in conducting 'multi-sited' ethnography for studying everyday (consumption) practices (Marcus, 1995). The term multi-sited ethnography was first coined by anthropologist George E. Marcus (1995) to address the shortcomings of traditional single-sited ethnographies, which he claimed quite often completely separated the local phenomenon under study from the larger global system (1995). Marcus contended that due to the dispersed nature of any given social phenomenon, traditional single-sited ethnography failed to account for the multiple aspects that help explain the complex nature of a phenomenon (Marcus, 1995). Moreover, Marcus clarifies for his readers that the 'site' in a multi-sited ethnography is not always defined purely in terms of multiple geographical sites; it can also be understood as research that is embedded in overlapping multiple discourses (Marcus, 1995).

The central aspect of multi-sited ethnography is thus not only ethnographies that move, but also being able to locate the local within the global and identify links among the sites of study that demonstrate globality. A multi-sited ethnography is therefore essentially *in* and *of* the world system (Marcus, 1995). In such a way, multi-sited ethnographic work holds the benefit of yielding a greater insight into the connections and implications of global issues for local practices. In the same vein, it becomes all the more relevant for research in multidisciplinary areas such as clothing use practice, in which researchers are keen to understand how macro-level ecological issues impact the meso-micro-sociologies of peoples' practices and vice versa. Proponents of single-sited ethnography however often question the 'depth' of the analysis in a multi-sited ethnographic study (Hannerz, 2003). To address this and to avoid a 'journalistic' positionality, multi-sited ethnography helps researchers study

sites from within or intratextually, and across or intertextually, so as give the analysis greater depth and trustworthiness (Minowa, Visconti & Maclaran, 2012; see 4.6–4.7). As I explain later in the chapter, how this transpires in practice is through a dialogue which forms between the researcher and the informants before officially entering the field and continues to develop during the field work resulting in the achievement of a conjoint 'glocal reflexivity' (Minowa et al., 2012, p. 483; see 4.5–4.7).

Marcus (1995) proceeded to expand the reach of ethnographic research by proposing that researchers understand the nature of a given phenomenon through identifying the relationships between people, objects, metaphors/language, narratives, or conflicts that are (re-)produced in the performance of practices. To do this skilfully, Marcus (1995) recommended using a variety of methods, "some in more depth than others" (p. 108). Using a mix of methods is also appropriate in pragmatism, as the focus is on 'what works' (Tashakkori & Teddlie, 2003, p. 713) best in identifying and understanding a phenomenon. For Marcus (1995), using mixed methods allows for "a number of conceptual discussions" in the attempt to analyse a social phenomenon that is reproduced in more than one site, as they act as "guides to how to see or ethnographically prove a 'sensibility' for the system among situated subjects" (p. 111).

This task can gain further support by employing the logic of reasoning, which requires an abductive approach. Abduction is the logic of discovery rooted within a pragmatism-oriented perspective and was thus the most reasonable way to both conduct the study and analyse the data gathered. Pragmatism understands knowledge as an ongoing process that requires continuously inquiring, reflecting and deliberating, and an analytical process of abduction enables this. Abductive reasoning is a process of inquiry that presents deeper, new theoretical insights into the collected data (Minowa et al., 2012). Unlike inductive reasoning, in which the researcher enters the field with no prior theoretical knowledge and attempts to create a theory from the data alone, or deductive reasoning in which the researcher sets out to prove a theory by fitting data into the theory, abductive reasoning takes the middle ground (Timmermans & Tavory, 2012). It does not search for one absolute truth but, through an iterative process of switching between theory and data, continuously provides possible solutions to perplexing problems. Therefore, the prior knowledge and experiences that have shaped the world view of the researcher are not abandoned or imposed upon the data. Nor is the cultural heterogeneity of the informants deemed unnecessary or explained in isolation (Desmond, 2014). Instead from the onset, the

literature chosen by the researcher has informed the formulation of a loose understanding of the problem at hand. A rough hypothesis takes shape and upon commencing fieldwork, surprising encounters arise that mostly become identifiable due to the theoretical knowledge foundation that the researcher has built on the subject. This gives the study its depth and adequacy (Desmond, 2014). The next section details the data collection methods and how the research process unfolded in the light of these guiding principles.

4.4.1   Methods

Historically, ethnographic research has focused on the study of cultures from an 'emic' perspective or from 'the native's point of view' (Malinowski, 1922). In the 'emic' approach the presence of the researcher (or the 'etic' perspective) was not recognized. However, since the 1980s a more balanced approach to doing ethnographic research has been undertaken. Ethnographers now try to make sense of the data through mixed-methods by combining emic, etic and secondary data. This results in identifying the researchers' reflexivity, creating rich understanding and better theorization of a given phenomenon (Lipson, 1991). As mentioned in the previous section, both pragmatism and multi-sited ethnographic methodology also support using a mixed-method approach to gathering data (Marcus, 1995; Tashakkori & Teddlie, 2003). Moreover, practice theory scholars such as Gherardi (2012) and Nicolini (2009) also note that when empirically studying the sociomaterially entangled nature of practices, researchers could benefit from using a variety of tools and methods. Triangulating this type of data during the analysis phase further adds to and accounts for the credibility of the study findings (see 4.6; Marcus 1995; Lincoln & Guba, 1986).

As shown in Table 2, (see p. 73) the data for this research were derived through primary and secondary sources. The methods for gathering primary data included a mix of participant and non-participant observation, in-depth semi-structured and unstructured interviews/ informal conversations with informants, short surveys, pictures, and short video clips. Field research for this dissertation was carried out in Helsinki (Finland), Auckland and Wellington (New Zealand) and Edinburgh (the United Kingdom). The secondary data were collected from published books, journal articles, and conference papers from peer-reviewed sources. Observations, interviews and secondary sources are the most common methods for data collection in ethnography (Saldana, 2003). Observations are both non-participant and participant. As an

Site	Timeline	Objective	Data Collection Method	Data Recording Tools
Helsinki, Finland	January–October, 2016	Baseline literature review	Secondary sources: journal articles, books, conference papers	Microsoft Word
		To identify mending event organizers	Web search Email	Map creation
	November–June 2017	To make contact with and seek permission to interview organizers	Primary sources: Snowball **3** in-depth semi-structured interviews	Field notes Pictures Transcription of audio recordings
		To participate in mending events & To interview participants	**30 + hrs** Participant observation Short surveys **16** in-depth semi- and unstructured interviews Group discussion with **4** menders	Field notes Transcription of audio recordings Survey A responses Pictures
	May–June, 2017	To identify mending organizers in New Zealand	Web search Email	Map creation
Auckland and Wellington, New Zealand	August–October, 2017	To interview organizers	**3** in-depth semi-structured interviews	Transcription of audio recording Field notes
		To participate in mending workshops To interview participants	**40 + hrs** Participant observation **30** in-depth semi-and unstructured Interviews	Field notes Transcriptions of audio recordings Short video clips Pictures
	September–December 2017	To follow up participants	**3** follow-up in-depth semi-and unstructured interviews **8** follow-up short surveys	Field notes Transcriptions of audio recording Survey B responses Pictures
	January–February, 2018	To contact mending organizer	Web research Email	Map creation
Edinburgh, United Kingdom	May–June, 2018	To interview organizer To participate in mending workshops To interview participants	**20 hrs** participant observation **1** in-depth semi-structured interview **7** in-depth semi-and unstructured interviews	Field notes Transcriptions of audio recordings Pictures

TABLE 2: Data collection framework.

ethnographer, the researchers' task is not just to record facts by merely looking at a phenomenon, but by also observing behaviour through deep immersion into the field over an extended period of time (Saldana, 2003). This is undertaken by both non-participant and participant observations. Non-participant observation involves analysing "beyond people's opinions and self-interpretations of their attitudes and behaviours, towards an elevation of their actions in practice" (Gray, 2009, p. 397). Non-participant observation is often coupled with participant observation in order to avoid researchers' bias and a 'spectator's' view of the practice that may arise if one relies entirely on non-participant observations. To address this, the researcher enters the informants' natural setting, listens to and engages in conversation and practices with the informants, and becomes part of their community (Gray, 2009). Deep immersion also enables the researcher to understand the practice from within and to report on their "own experiences, feelings, fears, anxieties and social meaning, when engaged with people in the field" (Gray, 2009, p. 399) in the given context.

To enable this, the researcher must make field notes. My field notes in this study noted my observations and reflections during and after participation in mending events and formed part of the analyses process. I also made audio recordings capturing background sounds to aid the analyses process (see 4.6). The researcher makes descriptive memos and uses thick descriptions to support this process. Ethnographers use thick descriptions to describe and provide a critical understanding of how an action takes place, what elements impact this action, what effects result in the action and what meanings arise during the action *in situ* (Lincoln & Guba, 1986; see Articles 2–4). Using thick description as a method to both illustrate and analyse study findings in combination with other methods can result in a rich, contextualized and comprehensive account of the topic under study (Collins & Stockton, 2018). Section 4.6 discusses how this is achieved in practice. I also took 15 short videos and 567 pictures to capture the performances and processes of engaging in the practice of mending. Although these were not analysed as such, they provided mnemonic support for the data analysis process (Gherardi & Perrotta, 2014).

Non- and participant observations and interviews formed part of the core primary data of my research. The interviewed informants were the organizers of the communal mending events and the participants. An interview is a type of conversation during which one person (the researcher) poses questions (Gray, 2009). It is often regarded as a useful

method for gathering data as it can tap into information that is not always possible to obtain through other methods (Mason, 2002). Interviews can be structured, semi-structured or unstructured (Gray, 2009). The organizers'/experts' interviews followed a semi-structured interview approach using a formal interview guide and were held a few days prior to the mending events (see Appendix C). All the participant interviews were a mix of semi-structured and unstructured undertaken during the mending sessions (see Appendix D). This meant that semi/unstructured interviews with the participants took place on the spot, as they and I were engaged in mending garments, and participants would often delve into conversation on topics that were not covered in the guide. Here the intention was to avoid influencing the informant, as formal interviewing can often result in an unnatural setting and informants giving answers that they think the researcher wants (Gray, 2009). Thus, the interviews were conducted more in the format of a conversation, allowing space for the informants to share topics they felt were important (Gray, 2009). These semi- and unstructured interview-based conversations lasted from 20 minutes to 2 hours. All the 67 interviews were audio-recorded and transcribed in full.

My secondary data was gathered using web search. This meant using key words such as 'mending', repair', 'practice theory', 'qualitative research,' 'ethnography', 'sustainable consumption', 'sustainable fashion', 'mixed-method'. These key words were typed into various scholarly journals (e.g. Springer, Taylor and Francis, Sustainability) to gather the existing literature and create the research design, theoretical framework, interview questions, and analysis protocols for the present work. I also used Google to gather information about global repair communities, using key words such as 'repair groups', 'social mending', 'grassroot movements' to find self-organized garment mending events. The purpose of this was to identify the field in which this research was to be situated (Marcus, 1995).

I also used short surveys to gather data and created two types of surveys; Survey A and Survey B. Survey A was used to collect information on the participants' age, occupation, previous knowledge or experience in mending, frequency of visits to mending events (see Appendix E). During my field work in Helsinki I would circulate Survey A to the participants before they began mending. However, during my field work in New Zealand and the United Kingdom I combined the questions from Survey A to the semi-and unstructured interviews instead. I realized that in masking the survey questions as part of the conversations allowed the

participants to feel at ease in sharing their experiences. On the other hand, Survey B was emailed to the participants after the mending events in all sites and covered questions on type of mending techniques used, if the repair lasted, if other garments were mended (see Appendix F).

The intention of using short-surveys was to create mender typologies by combining these with the data gathered through qualitative methods. When used by itself surveys are limited in their ability to capture the specifics of practices as they occur in their natural settings (Brierley, 2017), so I combined the data gathered through them with the core data gathered ethnographically. The two data sets were then cross-referenced to avoid reductionist generalizations in the quantitative tradition, which often omits valuable elements of action. Using mixed methods also helped balance quantitative generalizability and avoid researchers' bias. Triangulating qualitative and quantitative methods enables confirmation of qualitative data results while adding meaning to quantitative data (Brierley, 2017; see 4.6). Before discussing the analysis process in depth the next section will detail the sites of the study.

4.5   MENDING SITES AND MENDERS: HOW AND WHY I MOVED THROUGH SITES

The fieldwork for the present research took place in 18 garment mending events in four cities. Seven organizers were responsible for the mending events that I participated in. By collecting data on these organizers I was also able to create three general categories that could best illustrate the variations in the types of organizers arranging these mending events (see Appendix B). Before elaborating on the sites at which the study was conducted, I will provide an overview of the typologies of organizers that formed part of the research:

> Craft-activists events: Hosting mending events single-handedly was characteristic of the organizers forming part of this group. These organizers were trained in and held professional degrees in the field of fashion and/or textile design, and self-identified as craft-activists. Their mending events were often one-off and pop-up in nature. These included: Korjaussarja (2014, Finland), Repair-a-thon (2016, Finland), (see 4.5.1).

> Communal-led events: The hosts in this group consisted of everyday groups of civilians (not fashion/textile designers) who, through their lobbying efforts, received grants from

local ministries. These grants enabled the mending events to be hosted at regular intervals in public spaces such as community centres or recycling centres. These included: the Community Recycling Centre (2016, New Zealand) and Gribblehirst Community Hub (2014, New Zealand), (see 4.5.2).

Social enterprises: Situated between the two categories above were social enterprises. They financed their mending events, which were free of cost to attendees, through proceeds from other activities of their business such as consultancy work or selling up-cycled clothing, furniture, etc. These included: REMAKE (Finland), On the Mend by The Formary (2016, New Zealand), and Repair Surgery by The Remakery (2011, the UK).

The following sections reveal and reflect on how and why I moved through these sites, and provide the backgrounds of the informants whose practices I documented and analysed.

4.5.1 Site one: Helsinki, Finland

During the first eight months of my doctoral work in January 2016 in Helsinki, Finland, I conducted a preliminary review of the literature on mending. The aim of this was to understand how mending was positioned, what gaps existed in the present debate and how mending could be re-conceptualized by reinterpreting it through practice theory deliberations. Doing so not only enabled the formulation of the first research question, addressed in Article 1, but also provided the initial theoretical ground for my empirical work. Therefore, during this time, using the online search engine Google, I also began identifying the groups involved in organizing communal mending events in Helsinki. Upon identifying two organizing groups, I established contact with them and they helped me get in touch with the third organizer through word of mouth and snowballing (see Article 2; Flick, 2009). All three organizers were interviewed outside the mending events in a place of their choosing. I recorded and transcribed these interviews in full and noted detailed information on the events. During my interviews I was also able to attain the organizers' permission to conduct my study at their events. Once this was agreed, I began participating in the mending events and officially 'entered the field' in November 2016.

The ethnographic fieldwork in Helsinki lasted from November 2016 to June 2017 in eight communal mending events. The data consisted

of field notes, 20 (16 individual and 4 group) participant and 3 organizer interviews (both semi- and unstructured), responses from Survey A and pictures documenting the various mending processes. Although Survey B was sent to all participants from Helsinki I was not able to receive any reply. The fieldwork in Helsinki was carried out in a number of places, from libraries to cafés, wherever the organizers found space to host their events. As my participation in the events progressed, I began to wonder about who these menders were, how they mended, how their ways of mending varied. This was how the second sub-question emerged, addressed in Article 2. As the findings of my Helsinki fieldwork are detailed in Article 2, I would like to present here the backgrounds of the three organizers of the mending events in which I partook, to provide a context for the reader when reading Article 2.

FIGURE 4: Pop-up mending event at an atelier, 17/01/2017, Helsinki, Finland. Source: Author.

REMAKE

Originally a fashion design label, this company has branched out into a social enterprise since its inception in 2008. REMAKE is owned and run by two fashion designers who are also certified seamstresses. They began hosting public garment mending events as a response to the fast-fashion generated throw-away culture. In the past they have hosted their events at public libraries and often at their own atelier (see Figure 4). Unlike other mending events that were emerging in Helsinki at the time, REMAKE took a more structured approach. It selectively narrowed the focus of each event to different aspects of garment use and maintenance. For example, it hosted events for only denim repairs and at other times focused on darning woollen garments. It provided participating menders with materials from scrap fabric to threads, as well as access to sewing machines (REMAKE, interview date 04/11/2016). During the time of my fieldwork in Helsinki (November 2016–June, 2017) their events were hosted free of charge: a year later I discovered they had begun charging a fee for their events to cover their running costs, a point I discuss later in Chapter 6.

Repair-a-thon

In defiance of fast fashion's production and consumption practices, Repair-a-thon was the creation of an independent fashion designer, Sasa Nemec. In 2016, she began her mending events by contacting local libraries in the city to find a space to host the events. She soon began collaborating on a regular basis with libraries, local cafés, and university art spaces, where she held public mending events. An activist at heart, Sasa would take her beloved Singer sewing machine and a bag filled with scrap fabrics, button jars, measuring tapes and other haberdashery to each mending event she hosted. In her events, she offered to repair garments for people herself and encouraged participants to mend themselves while giving advice on how to do basic mending. Since their inception, these mending events have slowly been growing in the city and are free of charge (Nemec, interview date 23/02/2017).

Korjaussarja

The English translation of 'korjaussarja' is repair kit. The name reflects the activities of a group of six craft education students. They began their collective in 2014 as part of a Fashion Revolution event that was being hosted by the University of Helsinki in the city. Since then they have hosted public repair events free of charge. During their events, like the others, they provide participants with access to sewing machines,

threads, needles and other haberdashery while mending their clothing. They aim to spread the knowledge and skill of mending through social engagement mending activities. The majority of their events are held in easily accessible public spaces such as museums and cafés. Their aim is to address rising levels of clothing waste by inspiring feelings of warmth and care towards garments through mending (Korjaussarja, interview date 15/02/2017).

As can be inferred from the descriptions above, these events in Helsinki were not only beginning to emerge but were conducted in an erratic, pop-up way. Although this meant that more areas and local neighbourhoods in the city could be covered, as a doctoral researcher faced with time limitations, the unpredictability of when the next field visit would be proved rather troublesome, and I was unable to go back to the field on a regular basis to find answers to subsequent questions. Feeling a bit stuck in my work at the time, I also followed the larger Fixer Movement (see Charter & Keiller, 2019) online and found that it had spread all the way to New Zealand. Through online research I found the Gribblehirst Community Hub, which hosted regular repair events at permanent locations. Feeling guided by the 'opportunistic movements' (Marcus, 1995, 1998) advancing in multi-sited ethnography, and a desire to increase the frequency of my site visits, I decided to contact these organizers and take my research there. The next section provides details of the second site of my research.

4.5.2 Site two: Auckland and Wellington, New Zealand

I identified and contacted seven organizations hosting repair events in Auckland and Wellington. Three responded. I was also accepted by the Auckland University of Technology (AUT) as a visiting researcher for three months. This allowed me to move to New Zealand to do my fieldwork from August to October 2017 in Auckland and Wellington. The data I collected there consisted of semi-and unstructured interviews of 33 participants (three of which were follow up interviews) and three organizers, field notes from participation in six repair events and eight follow-up short surveys. During my time in New Zealand and in particular owing to the regularity of my field visits I began contemplating the learning practices of menders. This yielded the third research sub-question, that of how menders learn their practice and what learning outcomes emerge from being in practice. As the findings are detailed in Article 3, I here provide a description of the organizing hosts of the events at which I conducted my fieldwork:

FIGURE 5: Communal mending event, 08/09/2017, Auckland, New Zealand. Source: Author.

Gribblehirst Community Hub, Auckland, New Zealand

In 2014, after receiving a grant from the City Council of Auckland, a group of Sandringham residents, a neighbourhood in Auckland, converted an abandoned bowling alley into a community centre and formed the Gribblehirst Community Hub. The intention was to create a multi-use space for residents for various activities.

Inspired by the Repair Café Foundation in the Netherlands, the Gribblehirst Community Centre hosted the first repair event in the country in 2016. Since then they have held monthly repair workshops that are open to the public with no participation fee or charge for using materials. Members of the Community Hub pay a monthly membership fee, which is used to fund the free public events such as the repair events (see Figure 5). The Centre has on occasion invited professionally trained menders to the garment-mending events to assist people with their repairs. However, non-professional local menders with previous repair experience usually volunteer to help novice menders. This study focused on non-professional garment menders, both the volunteer helpers and the participants mending their garments or having them mended. Neither the volunteers nor participating menders had professional backgrounds in fashion and textiles. The Centre's clear aim is to minimize

waste while creating self-sufficient communities through skill sharing. The members of the Community Hub see themselves as guardians of the environment and protectors of their communities (Gribblehirst Community Hub, interview date 13/08/2017; see Article 3, p. 7).

Community Recycling Centre, Devonport, Auckland, New Zealand

Run by local programme managers, the Recycling Centre in Devonport is part of the non-profit organization Global Action Plan Oceania. The Centre's activities predominantly focus on recycling, repairing, communal gardening, and reducing waste. After receiving a waste minimization grant from the local city council, the Centre purchased a tools truck. The truck carries equipment from sewing machines to screwdrivers. It is mostly parked at the Recycling Centre, where repair workshops similar to Gribblehirst's repair events are held. Since 2016, pop-up, one-day events have been held, when the truck is driven to various locations across the city. The Centre advertises the location of their pop-up events in advance on social media to encourage local residents to come and get their things fixed. The data gathered here was also specifically related to the garment-mending activities in the repair events at the Centre, during which the programme managers played the role of ushers and helpers, facilitating and hosting the workshop. Like at Gribblehirst, they often invite skilled professional garment menders, but also have volunteer non-professional menders to help others with their mending. They work to build up the capacities of other smaller community groups by equipping them with the resources/tools they need to host their own individual repair events. In this way, the Centre aims to create a menders' movement across the city to encourage tinkering with garments in unconventional ways, to extend the life of garments, and to spread the knowledge of how this is done (Community Recycling Centre, Devonport, interview date 03/08/2017; see Article 3, p. 8).

On the Mend, Wellington, New Zealand

Based in the capital city of Wellington, On the Mend is a monthly garment mending event hosted and run by a social enterprise called the Formary. After April 2016, when it received funding from the city council of Wellington, the Formary began a series of garment-mending workshops on every second Thursday of the month. Frustrated by the current model of fast fashion and ever shrinking garment lifespans, the organizers decided to address the issue by encouraging mending. Not

only do they want to help steer garments away from landfills, they also want to help keep existing garments in use for as long as possible. Their primary focus is on sharing knowledge not ony of the environmental impacts of the textile industry but also of mending techniques. To this end, they invite a professional mender every month to their events to give a demonstration on a mending technique. These professional menders have degrees in the field of textiles and/or fashion. After the demonstration, the professional mender oversees the non-professional participating menders and assists them with their mending if necessary. The event is held at the same local restaurant every month and is free of charge. The participating members are provided with free access to any haberdashery needed for the mend (The Formary, interview date 10/08/2017; see Article 3, p. 8).

During the mending sessions I often indulged in informal conversations with these organizers due to which I also learned about their future plans. All three groups shared a common goal to turn their practices into a self-sustaining organization and benchmarked the practices of the Remakery in the UK as their target. Trying to locate the global in the local (Marcus, 1998), I then initiated contact with the Remakery, details of which I provide below.

4.5.3   Site three: Edinburgh, the United Kingdom

In my curiosity to understand why the Remakery was mentioned so frequently during my conversations with the organizers in New Zealand I contacted the organization. I also scheduled a visiting research period at the Edinburgh College of Arts (University of Edinburgh) to coincide with my fieldwork dates. And so, I moved to Edinburgh for one month and carried out my fieldwork from the end of May to the end of June 2018. I conducted one organizer interview two days prior to my participation in the first mending event at the Remakery. Following that seven in-depth semi-and unstructured participant interviews during participant observation in four mending events in Edinburgh were carried out. These mending events were hosted by the Remakery, a social enterprise, which is described below.

The Remakery

In 2011, with 60 pounds in their pockets, a group of volunteers started the Remakery in London, with the aim of creating a re-use and repair centre that was also a community hub. It was later relocated to the port district of Leith in Edinburgh. After a year of out-reach work and self-promotion

FIGURE 6: Thursday 'Repair Surgery', 14/06/2019, Edinburgh, United Kingdom. Source: Author.

in local environmental community meetings, the Remakery was allotted a small space in a community centre. Initially run entirely by volunteers, it operated for two hours a day as a pop-up repair café. After becoming a registered organization in 2013, the Remakery established itself as a social enterprise and received a short-term grant from local authorities. Using this as start-up capital it was able to hire part-time employees and make contact with local recycling centres. Using donations from the recycling centre it fixed electronics and re-sold them to cover its cost. Soon after, it began repairing other items such as furniture, clothing and other household equipment, all of which were donated by charity shops or recycling centres. In order to keep the business going it also set up a separate range of workshops for a fee. These workshops include courses on woodwork, book binding, eco-printing, up-cycling, and sewing. The money generated from these sources is put back into the business to support the free repair event hosted every Thursday called the 'Repair Surgery' (see Figure 6). Every week, locals volunteer to help those in need of guidance with their repairs. My research focused primarily on the free Thursday repair events and I interviewed only those who were

mending garments (both volunteers and participants). Materials such as buttons, sewing machines and threads are all provided for free at these events. The purpose of the Thursday 'Repair Surgery' was to include the community and share skills and knowledge of how to fix products and fight product obsolesce. The Remakery aims to make Edinburgh a zero-waste city with engaged and caring community members (The Remakery, interview date 30/05/2018).

As I continued my interview based conversations with the menders and continued mending my own garments in Edinburgh, I soon realized that the menders often spoke of their practice with a real passion. Curious to investigate this aspect further, during my month of fieldwork I began observing new elements that I had not considered in the previous two sites. Upon my return to Helsinki, I revisited the data I had collected from all three sites and re-evaluated it with aim of addressing my final, fourth sub-question: how do menders become able to assess and sustain their practice (see Article 4). Before moving on to how the analysis process unfolded, the next section of this chapter provides a summary of the menders that formed my core data.

4.5.4   The menders

The focus of my work was on the practices of the menders (participants of these events) who were not trained in professions related to textile design, fashion, and/or crafts, or as I termed them 'vernacular menders' (see Article 2). However, I did not isolate the practices of these vernacular menders; I analysed them in relation to professional menders and their material context. In Helsinki, the professional menders were also the organizers of the events and the participating menders were all vernaculars. In Auckland, Wellington and Edinburgh, however, the organizers were not professional fashion/textile designers, but they would occasionally invite professional menders (those trained as fashion/textile/crafts/costume designers) to guest host the mending events. The vernacular menders included those who volunteered to help other participants with mending while also mending their own garments. The overall group of vernacular menders across all three sites was therefore a heterogeneous group, the youngest being 19 and the oldest in their mid-80s. Both men and women participated, but the majority were women. Their occupations ranged from shop assistants to photographers (see Appendix A). Their mending history also varied from never having mended to mending for years. The garments that they brought were a mix of purchases from high-street brands like Hennes & Mauritz to items inherited

from family members. As Article 2–4 describe the menders and their practices extensively, I will move to the next section where I detail how the process of analysing this vast, dynamic group of menders and their practices took shape.

4.6 THE ANALYSIS PROCESS

Due to the article-based nature of this multi-sited ethnographic dissertation, criticality and analysis were embedded in every stage of the research. Therefore, the analysis process occurred on three intertwined fronts: theoretical, methodological and empirical, all of which were in dialogue with one another. Building the study on a way of thinking rooted in pragmatism meant taking an abductive approach to the logic of reasoning (Jackson, 2016). Consequently, and as I will explain shortly, the theoretical, methodological and philosophical literature I was reading helped shape the created research design and its execution. While in the field, I addressed any opportunities taken or limitations that I faced while making decisions regarding moving between sites or using data collection methods using my researchers' "common-sense knowledge" (Hammersley & Atkinson, 2007, p. 15), in consultation with the literature I was reading. This further resulted in analysing the empirical data as they were gathered through a combination of insights from the field and the created sub-theoretical frameworks (see Chapter 2 and 3). Therefore, the theoretical and empirical timelines of this work ran almost parallel with one another. With the exception of Article 1, the five-phased process mentioned below was repeated each time I wrote an empirical publication. Hence, the analysis was a five-phased looped or spiralled process (Berg & Lune, 2012), as explained in detail below.

4.6.1 Reviewing

From the onset of this study I immersed myself in the extant literature on mending. Before even formulating a complete overarching research question, I aimed to understand how garment mending was being positioned within the arena of research on clothing use practices. I soon came to realize that trying to deal with the 'wicked problems' and challenges of textile waste was not as straightforward as the limited, scattered solutions given in the literature. In addition to the various contradictions, the approaches presented in the existing literature were primarily based on linear models of understanding mending practices (see Chapter 1). Hence, I theoretically began analysing the existing literature on mending. In doing so, I identified various gaps in the present debate and I

reinterpreted garment mending through an elements-based practice theoretical conceptualization. This enabled new theoretical insights into mending to take shape (see Article 1). It also resulted in the need to study mending practices in vernacular spaces or communal events as a relevant topic of research, providing grounds for commencing primary research. It is worth mentioning that although the next phase of the study began after the preliminary literature review stage, I continued studying and reviewing the literature throughout the course of the data collection, analysis and publication process of writing up the ethnography.

4.6.2 Identifying

Although my initial views on mending were formed on the basis of the analysis in the review stage, they were still 'contingent and malleable' to the 'opportunistic movements' I made while empirically tracing the practice across sites (Marcus, 1995). This led me to identify the various mending events that were emerging in the city of Helsinki using Google in January–October 2016. Once I had identified the organizers in Helsinki I began contacting them. The second round took place in May–June 2017 when I began identifying organizers in site two, New Zealand. The third round of identifying these events was at the end of November–December 2017, when I pinpointed organizers other than the Remakery in the UK. This provided a macro delineation of the 'repair ecosystem' or the Fixer Movement, which was emerging at the time and within which my research was situated. It further helped me understand practice as not only a *perspective* but also a *phenomenon*. To stay true to a multi-sited ethnographic methodology, this meant making connections between the global and local occurrences of a practice.

4.6.3 Sifting

After each round of identifying came the sifting phase. I emailed all the identified organizers and introduced myself and my work. On the basis of the responses I received I was able to narrow down those willing to let me interview them and participate in their events. At each site at which I conducted my fieldwork, my analysis first took what practice-theorist Nicolini (2009) refers to as an outsider's perspective, and I began by documenting who these organizers were and their professional backgrounds, a history of the organizing group, the structure of how mending events were organized, where the events took place and for how many hours and how frequently. Doing so gave me an initial sense of the events (Nicolini, 2009) organized in each site that I was to partake in later. This also

led me to categorize the various organizers on the basis of their project goals (see 4.5), thus making it easier to identify the meso-level context of the study (Marcus, 1995; see Appendix B).

This also meant that upon entering each site I was not 'bracketing' out my knowledge, unlike in phenomenology; I was building upon it. Therefore, knowledge from each site enabled connections with other sites. During this phase I also realized that these practices emerged on an erratic basis, in particular in Helsinki (my first site of study). Thus, I was unable to draw up well-defined, structured study designs prior to my fieldwork, using pre-defined methods as in a case study method (Tellis, 1997). Instead, I allowed the object of my study to gradually and iteratively become defined and to develop through analytically dialoguing between data and theory. My reliance on a multi-sited ethnographic methodology thus proved fruitful (Marcus, 1995). After this, I sought the organizers' permission to participate in the events so that I could better analyse the practices of the menders in relation to the sociomaterial context from within, thus moving from non-participant to participant observation (Gherardi, 2008; Nicolini, 2009; Gray 2009) and from treating practices as a *phenomenon* to treating them as a *philosophy* (Orlikowski, 2010).

4.6.4   Participating

Next came phase four, during which my analysis zoomed in to study the micro-sociomaterialities of the practice of mending through an 'insider's' lens of participant observation (Nicolini, 2009). Here, understanding practices meant giving precedence to practice in the creation of knowledge and treating it as an onto-epistemic object (Gherardi, 2011). In order to explain how this was undertaken I will break this phase down into four analytical doings, and clarify the analysis process. These doings were gradually discovered by being in the field and categorized as: *observing, talking, sensing and reflecting*.

During the initial phases of my fieldwork I primarily *observed* the practices of the other menders, the structure of the events, the number of participants that visited each event, what they brought with them, how long they stayed at the event, and whether they mended visibly or invisibly. The intention of my observations at this stage was to capture 'reality' as best I could (Hammersley & Atkinson, 2007). Thus, I made my observations relying primarily on my sense of sight. Yet, as time went on, two developments arose. First, I began digging deeper into the previously mentioned philosophical assumptions of pragmatism

and multi-sited ethnography. My readings therefore informed me that researcher reflexivity was at the core of both my methodology and philosophical paradigm (Marcus, 1998). Moreover, I began to realize that excessive note-taking was not only distracting for the participants but it prevented me from reaching the core of the practice I was conceptualizing, 'practice' being the operative word. How could I study a practice that I was not fully engaging in myself? Therefore, after the first month of my fieldwork I decided to take my own garments with me to the mending events. As I mended together with other menders, both my individual and collective experience was shaped, and further informed my research (Sparkes, 2009).

What started as interviews thus resulted in in-depth conversations with the menders, leading to the *talking* phase of my fieldwork. I had initially created a semi-structured interview guide (Flick, 2009) that I would take with me and use to conduct the interviews on site. However, I soon realized that not only did this process make a natural setting unnatural (Walford, 2009), the participants in Helsinki in particular became guarded and refrained from talking. Therefore, I decided to focus more on mending with the menders and letting the conversations unfold naturally (unstructured interview, see 4.4.1), occasionally referring to the interview-guide questions. This further allowed me to ask impromptu questions as and when the occasion required. As mentioned earlier during my time in New Zealand and the United Kingdom I also infused the questions from Survey A to these interview conversations.

By being in practice, over time I gained a deeper understanding through *sensing* the crux of the practice itself (Stoller, 1989). Through my own experiences of mending I became aware of two other senses that impacted my experiences and deepened my understanding of the experiences of the menders: the senses of touch and sound. Stoller (1989) notes that although visual observations are vital to ethnography, in order to truly understand the essence of a practice other senses and their impact on our experiences of knowing need equal attention. As mentioned, during the early stages of my fieldwork I mainly took notes from a 'spectator's' view. Once I began engaging in the practice myself, I started using my own bodily movements in relation to other menders and the materials in my hands to guide my mends. These haptic undertakings came in various forms: from learning to feel through dampening the thread enough between my tongue and teeth to make it taut enough to be easily threaded into the needle to feeling the fabric between my fingers in order to sense what the material it was. My own haptic encounters allowed me

to create an understanding of the practices of the menders and of the quality of their practices (Hennion, 2004). Through these experiences "information about the character of objects, surfaces and the whole environment as well as our own bodies" provided the medium through which practices were enacted (Sparkes, 2009, p. 27).

This further guided me to identify and make decisions regarding which aspects of the practice I should dig more deeply into (Marcus, 1998). It gradually became clear to me that experiencing mending myself helped me dig deeper into how and what menders were doing and referring to when they talked about their practice as they were in practice (Gherardi, 2008, 2009 a, b, 2012). Moreover, a noteworthy component of experiencing mending in communal events was experiencing the sounds in the various spaces in which the events took place. This meant focusing on the acoustics of the machines, the snipping of the scissors as they cut fabrics, and the conversations in the background and their impact on how mending was experienced. Therefore, an exploration of the haptic and sonic sensibilities as they gradually developed allowed a deeper recognition and understanding of how knowing-in-practice or knowing through experiencing by being in practice became possible for menders (Gherardi, 2008; Sparkes, 2009; see Article 4).

These experiences enabled better *reflection*. In practice this meant making shorter 2–3-page notes on site (see Appendix G), noting down the main points of observation on which I would later expand (Walford, 2009). In order to expand on my experiences, I decided to audio-record my reflections post participation in the mending events. I later typed up and repeatedly listened to these recordings, and added to the earlier field notes (Walford, 2009). Moreover, as the audio recorder (with the consent of the menders) would remain on during all the events I participated in, various sounds were also documented. Thus, the conversations that unfolded with the menders, their reflections while being in practice and the background sounds and their impact on the experiences of both the menders and myself became sources of data analysis (Walford, 2009).

Upon returning from my site visits I would listen to these recordings and transcribe all the interview-based conversations. I analysed in the present through 'deep listening' to all the recordings (Sparkes, 2009; Revsbæk & Tanggaard, 2015) – a process in which the researcher repeatedly listens to the audio-recording of conversations, interviews and background sounds and begins analysing in the present while transcribing. I added my reflections as side notes to the transcriptions (see Figure 7, p. 91). Doing so allowed me to relive the experience of participation
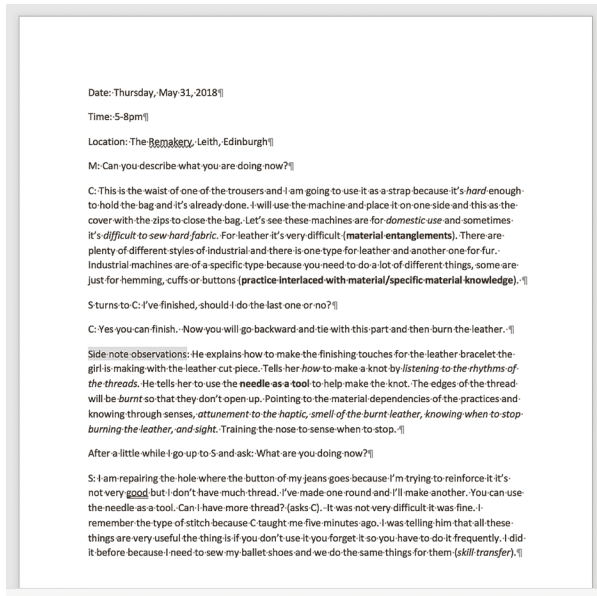
FIGURE 7: Excerpt analysis in the present. Source: Author

through listening intently to the sounds of the machines, the menders talking, jars clunking, and my conversations with the informants. By attuning and training my ears I was able to remind myself through my auditory senses of the experiences of participating in the events (Walford, 2009). Therefore, by repeatedly listening to the interviews, my reflections were reflexively recalled. I combined my field notes and transcriptions through the process of analysing in the present (Revsbæk & Tanggaard, 2015).

4.6.5 Writing

Set against this backdrop came the triangulation and cross-referencing (Lincoln & Guba, 1986) of the interview transcripts, the side notes on the transcriptions, the reflections on the field notes with the collected short surveys, the observations regarding video clips and/or pictures (see Figure 8, p. 92). These enabled the generation of thematic categories (Flick, 2009). For Article 2 this process was undertaken to analyse the data collected in Helsinki, while Article 3 focused on the data from New Zealand and cross-referencing findings from Article 2. For Article 4, the thematic cataloguing involved collectively reviewing the data from all three sites of the study. Each time the process was undertaken, various
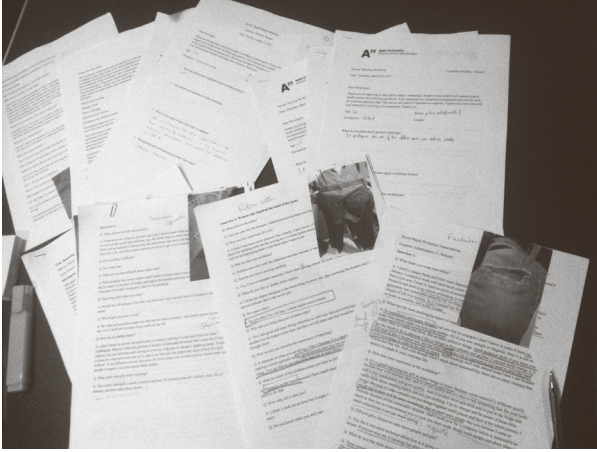
FIGURE 8:
Triangulating data.

themes emerged that were categorized under larger descriptive codes (Flick, 2009) to be used for each article's analysis. Examples of these codes included invisible mending, visible mending, sewing machine, hand mending, sounds, touch, material, aesthetics, learning, creativity, language (use of descriptive sensuous words e.g. rough, smooth, love, ugly, neat, grungy, loud), and so on (see Articles 2–4). This was followed by clustering to create mender typologies, articulating mending processes; and identifying learning processes, learned outcomes and the processes of assessing their practice. I illustrated these typologies and processes using thick descriptions (Ponterotto, 2006), further disseminating the processes of writing the ethnographies. The learning that resulted from doing and writing ethnographies also accounts for the trustworthiness of the illustration of the menders' intelligible practices (Lincoln & Guba, 1986).

The constant analytical dialogue between theory and data that unfolded during the course of this ethnographic study enabled and gave relevance to the topic I was studying. As with each new insight, it revealed that the topic was much deeper and more nuanced and layered than had been articulated in the existing literature. Conducting ethnographic research in this way provides rich views on practices, and sees people as capable of reflecting on their practices and habits and of reflexively responding to challenges, finding creative situated solutions by creating new, surprising practices (see Articles 2–4). When understood in this way, this multi-sited ethnography was supported through an abductive

reasoning in combination with a practice-theoretical sensibility, enabling novel insights into the multi-layered garment mending practices of everyday people that are related to larger challenges of textile waste. I would now like to conclude this chapter with a few words on axiology before moving on to summarizing the findings of the Articles in Chapter 5.

4.7 AXIOLOGY: ETHICAL CONSIDERATIONS AND TRUSTWORTHINESS

This study took ethical considerations into account. This meant ensuring that no authors' work used in this study was misrepresented and that it was acknowledged in full through vigilance in making citations and checking for plagiarism. Ethical sensitivity was also shown while interviewing informants, and their anonymity was maintained throughout, unless otherwise stated. Before the interviews, through informed verbal consent, the informants were made aware of their right to decline to participate, leave at any time, and to refuse to answer any question (Marshall & Rossman, 2016). Many of the organizers even posted on Facebook that I would be participating in their upcoming repair event. This way the participants were aware of my background. I even explicitly shared the purpose of the onsite interviews and where and how the data would be used. I sought verbal permission at every mending event for audio-recording the interviews and conversations and taking pictures or videos. Apart from the organizers, who did not object to me using their names in my research, all the participant names were changed. All the interviews were audio-recorded and transcribed in full. The only adjustments made in the transcriptions were corrections of grammar errors in the spoken English and the later addition of my side notes on my observations. Pictures and short videos were only taken with the participants' permission. All of them were given the option to review the transcripts and the drafts of the papers, although none of them wanted to do so. The data analysis process also grouped the participants into thematic categories to ensure the participants' anonymity.

Although measures were taken to ensure ethical research practices, a typical key dilemma in framing an ethnographic study within a pragmatic paradigm was assuring the trustworthiness of the results generated. In order to ensure the 'rigour' of the study, I adopted a four-step criterion. Developed by Lincoln and Guba (1986) this criterion speaks of 'trustworthiness' as opposed to 'rigour' to better account for the traceability, verification and authenticity of the data findings made through the study of real-life phenomenon in real-life settings. This criterion includes

credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1986, p. 77).

By credibility Lincoln and Guba (1986) mean prolonged engagements in the field with "intensive contact with the phenomena" (p. 77) to make sure that the findings identify salient features of the subject of the study and address 'internal validity'. In the present study, this can be reflected in the extended time spent on persistently observing the phenomenon of mending: three years (eight months in Helsinki, three months in Auckland and Wellington, one month in Edinburgh). Although a long-term ethnographic study cannot be defined by an exact number, a minimum of nine months of fieldwork is recommended for long-term research (Saldana, 2003). Moreover, anthropology considers time itself a cultural construct and does not always take longitudinal to mean a linear time line with an exact number of years/months (Saldana, 2003, p. 6). Instead, this long period of ethnographic research is understood as immersive fieldwork that is conducted over an extended period of time, or through appropriately timed revisits (see Burawoy, 2003). Long-term fieldwork for ethnographers "has customarily been construed as 12 to 18 months" (Stewart, 1998, p. 68).

Although the fieldwork for my research accumulates to 12 months, it was spread over a course of three years and I frequently visited the field during this time. Moreover, in-depth ethnographic research takes into account time spent in the field, time spent doing literature reviews, time spent analysing data, and time spent writing up the ethnography in the study of a given social phenomena (see Saldana, 2003; Marcus, 1995). These prolonged engagements enabled me to overcome any researcher biases, and to identify and investigate in-depth salient and emerging aspects of the practice while making sure not to misrepresent the menders and their practices. I cross-checked the gathered data through a triangulation of methods and four sub-theoretical frameworks (Lincoln & Guba, 1986), as mentioned earlier (see 4.6.4). In addition, and as advanced in abductive inquiry, I also presented my research results at conferences (Design Researcher Society (DRS) Conference June 2018) to get feedback from peers, which assisted my revision and clarification of results (Lincoln & Guba, 1986).

This enabled the second criteria; that of transferability, which addresses external validity. Lincoln and Guba (1986) note that in order to ensure that part or all of the findings of a study can be transferred to other similar works, researchers should adopt thick descriptive data. This provides a narrative analysis on the context of the work, allowing other

researchers to make comparisons with their own similar studies. Therefore, in Articles 2–4, I used thick descriptions to reveal how mending is performed, learned and sustained in the context of communal garment mending events.

Following from this is dependability, which Lincoln and Guba (1986) claim addresses the reliability of a study. They note that fieldwork is the best way to expansively study a practice "*in situ* in those natural contexts that shape them and are shaped by them" (p. 75). Therefore, action is not understood through positivist deliberations on causality but through a process of interactions among multiple factors, processes of trial and error, and recognition of a context that both shapes and becomes shaped by the phenomenon. Thus, researchers can provide "plausible inferences about the patterns and webs of such shaping" (p. 75). This can then be seen as mirrored through the five-phased iterative analysis process (see 4.6), which helps us understand mending practices through four conceptual aspects, as explained in Articles 1–4.

Finally, the criterion of confirmability addresses the axiom concerned with the 'objectivity' of a study. In line with pragmatism, Lincoln and Guba (1986) reject the notion of a purely objective study and suggest that the researcher forms a close relationship with the phenomenon under study. This relationship is interactive and should be embraced so as to mutually learn with the informants about practices by being in practice. As previously mentioned (see 4.6), by immersing myself into the world of mending I was able to form a relationship with both the practice I was conceptualizing and the menders. Doing so allowed me to dig deeper into the subliminal and pronounced aspect of the practice, which would not have been possible if I had relied on a 'spectator's' view alone. Being mindful not to misrepresent the world of menders, engaging in the practice allowed me, through both dialogue and action, to create a sensibility that experientially enabled "joint learning" (Lincoln & Guba, 1986, p. 76) of what and how the menders performed, learned and sustained the practice of mending. In following these parallel criteria of trustworthiness, this study was able to address rigor through a multi-sited ethnography. I now present a summary of the findings of the articles.

5

SUMMARY OF ARTICLES

"When something is broken and you mend it, you save it. I think that it's more creative because you get to fix it and also get to have your own perspective of it."
(Vernacular mender, Edinburgh, the UK, 31/05/2018).

This chapter presents a summary of the four publications appended to this dissertation. I will illustrate the research question (s) and how they were addressed in each of the four articles and provide an overview of the theoretical framework, methodology employed, data gathered and study findings of each publication (see also Table 3, p. 100). As the individual publications examine these aspects in great detail and in order to avoid repetition, a summary will suffice. I will also reflect on why and how the research questions were articulated in the first place. The purpose of this is to ensure well-informed reading of the articles; reading that is devoid of conceptual hiccups. Thus, this chapter will be rather short.

As an overview, I briefly outline what to expect in the following article summaries. The first appended article offers a preliminary review of the existing works on mending in the context of clothing use. The article identifies the gaps in the present debate on the topic and highlights the importance of seeing the existing user practices of communal mending as promising. This theoretical article does so by reinterpreting mending through a practice theory perspective. The remaining three articles, through a dialogue between empirical data and theory, explore various aspects of the practice of mending, allowing the sociomaterial practices to be understood through three key effects produced while being in practice: creativity, learning and taste. The analysis in the last three articles focuses on each of these effects. Each article conceptualizes mending as a performed practice and provides new insights into this topic. The second article explores how menders perform their practice, beginning by identifying the everyday menders, the ways in which they mended and the outcomes that emerged through their practices. Their embodied practices revealed the distributive nature of mending, how menders brought order to their practice and were able to fix their garments in often unique ways, extending the original design of the item. Their practices are understood as creative and imbued with the ability to re-design. Taking a lead from this, the third article examines how the menders learned their practice and what learning streams resulted from their participation in the practice. Article four, in turn, examines and illustrates how the menders became able to assess what quality of their practice was needed to maintain it. This revealed the individual and collective nature of how taste for their practice emerged, and examined the resulting attachments to the practice, while addressing how mending is sustained.

Overall, seeking guidance through the principals of pragmatism enabled the gradual development of a theoretical framework for sociomaterial practice that was well infused into this multi-sited ethnography.

Publication Type	Research Question(s)	Site	Data used	Data from	Practice Theory perspective	Key concepts	Focus of analysis
Book Chapter	What are the matters of mending?	n/a	Existing literature on practice theory and mending	n/a	Elements-based	Practice-as-entity Practice-as-performance	Matters of mending and links between them Changing role of mending
Conference Paper	How do menders perform their practice?	Helsinki, Finland	Field notes, interview transcripts, short-surveys, one group discussion transcript, pictures	Nov 2016– June 2017	Knowing-in-practice	Sociomaterial Creativity	Sociomaterial entanglements in performing the process of mending
Journal Article	How do menders actively learn during and through doing mending?	Auckland and Wellington, New Zealand	Field notes, interview transcripts, short-surveys, short videos and pictures, informal conversations	Aug-2017–Oct 2017	Knowing-in-practice	Sociomaterial Learning	Learning with and through the materials, the social aspect and discourse
Journal Article	How do menders sustain their practice?	All three sites	Field notes, interview transcripts, short-surveys, videos and pictures, informal conversations.	2016–2018	Knowing-in-practice	Sociomaterial Taste	Negotiation of the sensing body with the collective frame and material feedback

TABLE 3: Overview of publications.

This resulted in studying the practice of mending and forming a thorough theorization of the empirical data collected. New insights were revealed about the nature of the practice and the menders performing the practice in a situated manner. The concluding chapter of this dissertation, Chapter 6, discusses at length the implications of these insights.

5.1 ARTICLE 1: THE BECOMING OF REPAIR: UNDERSTANDING GARMENT MENDING THROUGH A PRACTICE THEORY PERSPECTIVE

This publication forms a chapter of the book 'Eco-friendly and Fair: Fast Fashion and Consumer Behavior', written in early 2017 and published in April 2018. It addresses the Sub-question 1:

What are the matters of mending?

The primary purpose of the publication was to review earlier mending literature to understand how garment mending is positioned in clothing

use research. Therefore, it was theoretical and based entirely on secondary data in the form of book chapters, journal articles and/or conference papers on the topic of mending. At the time the chapter was written, I had found and analytically reviewed ten publications on mending. I identified a number of gaps within the limited debate on the topic. As the present publication and Chapter 1 discuss these gaps in detail, I will only mention briefly them here.

Contributions of earlier works, though limited, identify mending as a practice that is not undertaken anymore with various barriers that curtail its practice in a Western context. The most commonly stated reasons for replacing ripped or torn garments with new ones instead of repairing them are lack of time, skill, access to equipment, and the relative cost of mending (WRAP, 2012; Norum, 2013; Gwilt, 2014; Lapolla & Sanders, 2015; McLaren & McLauchlan, 2015). In order to address these barriers, various recommendations to motivate people to take up mending have made (see Chapter 1), which have focused on altering user practices through design-led product alterations (Gwilt, 2014; WRAP, 2012; Lapolla & Sanders, 2015), exploring mending service providers and introducing alternative business models (Gwilt, 2014; WRAP, 2012), disseminating information through sewing education (Norum, 2013), eco-labelling and/or outreach programmes through media campaigns to 'educate' people on the benefits of mending (Dombek-Keith & Loker, 2011).

However, close inspection reveals various contradictions within the present literature with regards to the identified barrier (see Chapter 1). Moreover, a heavy focus rests on exploring user perspectives of mending but the study of the actual practices of mending has been neglected. Theoretically, earlier research on the topic has inadvertently conceptualized user practices as merely cognitively-driven resting on information-based strategies to alter behaviour. This representation of hedonistic users results in the removal of the social, material, historical and cultural elements in which practices are embedded. Such overarching ideologies have thus resulted in simplistic and isolated 'solutions' for encouraging mending. These solutions are targeted at 'informing' people of environmental issues, and aim to fill information gaps to change practices (Hargreaves, 2011). However, whether such approaches can lead to substantial change remains an open question (Shove, 2010).

In order to address this research problem, the present article submerged into reinterpreting the very practice that had been deemed problematic, through exploring the matters that make up mending. The

purpose was to understand the rudimentary handles of mending, how they are related to one another and the collective impact they have on practices. This deepened the understanding of the mechanisms of how practices emerge, evolve and/or expire (Shove et al., 2012). The unit of analysis then switched from perspectives to practices. Theoretically, the article was anchored in an elements-based perspective of practice (Shove et al., 2012). The combined readings of the mending literature and scholarly works from practice-based studies provided certain insights, which were materialized in the first article of this dissertation. Therefore, the arguments articulated in Article 1 led to the theoretical positioning being highly influenced by an element-based practice theory perspective (see Chapter 2). Furthermore, whilst reframing the present deliberations regarding mending, the article laid the foundation for future theorizations on mending which continued to pierce through each of the remaining publications.

The article identified the matters of mending as being encapsulated within its elements of materials (non-humans and humans), competencies (ways of knowing sourced in the doings) and meaning (socially shared ideas/norms/aspirations of a practice at a given time). Forming links between these matters as part of a practice – how they were related and how they impacted the practice – clarified the context and conditions through which mending had evolved over the years in a Western context. It enabled a theoretical reframing of mending by conceptualizing it as an established entity. This theoretical revisit allowed the history or 'career' of the practice to be traced and helped identify the present manifestation that mending had taken on, that of being communal.

Theoretically starting the study by reinterpreting the practice of mending through a practice theory inspired conceptualization therefore helped open up discussion on the importance of considering garment mending as fruitful. Moreover, it provided relevance for initiating empirical research on the practices of mending in the communal repair events that were emerging at the time in several Western countries. Therefore, the article concludes by urging a shift away from seeking solutions in only market-based systems (e.g. design-led production of modular garments) to recognizing the revival of repair practices in vernacular spaces as a promising and alternative research context for studying garment mending.

5.2   **ARTICLE 2: DESIGNERS BY ANY OTHER NAME: EXPLORING THE SOCIOMATERIAL PRACTICES OF VERNACULAR GARMENT MENDERS**

Before summarizing this paper presented at the Design Research Society (DRS) conference in June 2018, I wish to reflect briefly on its title. Although not an avid fan of Shakespeare I do admit to having read a number of his plays, one being Romeo and Juliet. In one scene, Juliet aptly questions the nature of social dichotomies and distinctions by seeking to transcend labels and assert relevance by questioning the essence of what is, as she asks: 'What's in a name? That which we call a rose by any other name would smell as sweet'. Refraining from romanticizing mending practices, these lines capture the core of the arguments made in this paper. After a little play on words the title; 'Designers by any other name: exploring the sociomaterial practices of vernacular garment menders' emerged.

The aim of this paper, as reflected in its title, was to focus on the very essence of what is. This paper therefore shows how everyday individuals organize their practices into being, through the processes of mending in communal repair events. Hence, the paper begins by asking the second sub-question:

How do menders perform their practice?

Garment mending continues to be identified as a significant practice for extending the useful life of garments (see Chapter 1). Yet, in-depth long-term enquiry into mending remains limited. The majority of the work that is available on the topic is based entirely on one-off short-lived workshops with controlled variables, in which the focus of the research has been limited to addressing barriers to mending as opposed to studying in depth the process of mending itself (see Gwilt, 2014; Norum, 2013; Lapolla & Sanders, 2015). The context within which these research findings are based are neither organic nor illustrative of mending practices, as they are performed in real-world communal events on garments owned by the menders themselves. This has led to shaping an understanding on mending as a practice lacking creativity (Lapolla & Sanders, 2015) and complexity. This identified gap thus formed one of the major motivations behind the present publication. In order to bridge this theoretical and methodological gap, the data for this paper were generated through ethnographic fieldwork in Helsinki from November 2016 to June 2017. The data were gathered using mixed methods, including short surveys, in-depth interviews, pictures, web research, and participant observation (see Chapter 4).

The empirical data were abductively analysed in conjunction with the insights provided through the theoretical framework of sociomaterial practice formed for creativity (see Chapter 3). Therefore, Gherardi's (2012, 2017) knowing-in-practice, sociomateriality and Tanggaard's (2013) conceptualization of creativity were vital for informing and influencing the analysis process. Whereas the first article established the practice of mending as an entity, this article zoomed in to understand it through the effects of performance. This conceptual effect, as mentioned in Chapter 3, was identified as creativity. By drawing on the concept of creativity as relational (Tanggaard, 2013) the paper explores everyday creativities as they emerged through the menders' practices. Understanding creativity as the result of material and social entanglements resulted in viewing mending as a complex practice that builds on the current ways of knowing. In this paradigm, practices were understood as enactments of knowledge that were situated, embodied and routinized. However, as I will show, from routine ways of doing, dynamicity or change also emerged. Practice therefore became an onto-epistemic unit that could be understood from within and conceptualized (Orlikowski, 2010).

Therefore, this paper's focus on the menders' sensing body (Strati, 2007) in relation to the affectivity of the materials and the social world resulted in identifying the distributive nature of mending. With the knowledge emerging through the performance of the various menders, the practice came to be understood as distributive. I first defined all these everyday non-professional menders as vernacular, after which I theorized, through their heterogeneous doings, sayings and material entanglements as well as my own reflections from being in practice, and identified four types of vernacular menders. I then categorized these as restorers, re-doers, reluctants and recruits, typologies that were fluid and overlapping:

Reluctants: Menders with no background in mending who were often afraid to try mending themselves. The mostly relied on experienced menders to mend for them.

Recruits: Menders who had never mended before and were mending for the first time or had little prior experience. They used both invisible and visible mends and eagerly tried new ways of mending.

Re-doers: Menders who preferred to mend visibly but could also re-do mends invisibly. They varied in experience from highly

refined in their ways of mending to beginners with rough ways of mending.

Restorers: Menders with refined ways of mending who had a great deal of experience in mending. They preferred to mend invisibly but had experimented with visible mending.

The analysis of the ways of *doing* mends revealed a detailed account of how the process of mending unfolded and became ordered through and in its performance. This process began with menders defining the problem. Questions such as where is the damage, what caused the damage and what was the degree of the damage were addressed through the bodily movements of the menders entangled with the materials. As menders locked eyes with the garment and grazed their fingers over and under the fabric, turning it inside out and scratching its surface, the haptic motions created space for analysing the problem, the required material, the self and the surrounding knowledge (consultation with other menders). This was then followed by brainstorming what was possible with the materials available, resulting in menders drawing patterns on papers, matching various fabric patches and glancing at other menders and their respective projects. Simultaneously, the menders experimented with various threads, patches or buttons to gain a visual idea before finalizing their mend. The menders often even broke away from one phase and went back to a previous one if their mends were not satisfying. Thus, mending came to be understood as both static and dynamically looped with the dynamic outcomes of the ever present invisible or visible mends that altered the function, fit, feel and/or aesthetics of the garment in either subtle or pronounced ways (see Figure 9, p. 106).

The concept of informal design was then introduced to encapsulate this process, which further cemented how vernacular menders engaged in mending, design and gave order to their practice simultaneously creatively extending the design of garments through mending. This was done through both bold, visibly mended patchwork and delicately, invisibly darned knits. Though the focus of the paper was on the practices of the vernacular menders themselves, I also studied their practices in relation to the professional menders and the mended garment. My analysis of the process of mending also revealed a similarity in how menders mended, regardless of whether they were designers or vernaculars. This emphasized the importance of overcoming dichotomised views of designers as sole authors of creativity, design and innovation,
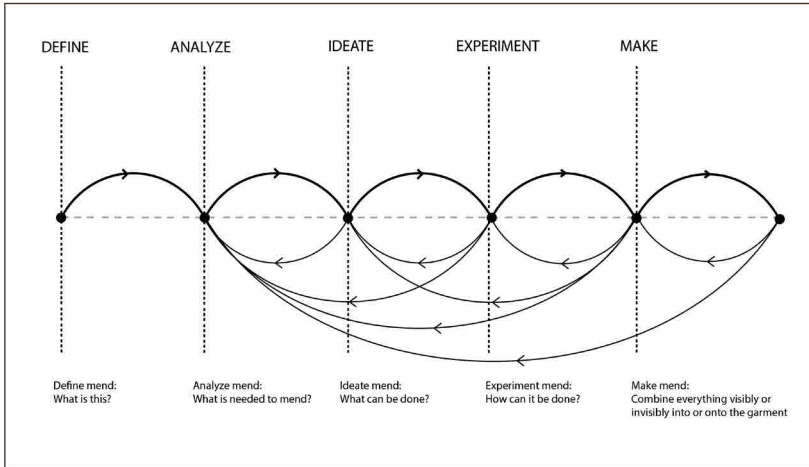
FIGURE 9: Process of mending. Source: Article 2.

and users as passive recipients and mere consumers of products. In blurring these lines, the article highlights designers and vernacular menders as equally tied to and entangled in a sociomaterial world. It also opens up discussion on acknowledging both the subtle and pronounced creativities that lie within everyday acts of mending, emphasizes people as active extenders of designed objects and calls on the need for future research to address this.

5.3 ARTICLE 3: "PEOPLE GATHER FOR STRANGER THINGS, SO WHY NOT THIS?" LEARNING SUSTAINABLE SENSIBILITIES THROUGH COMMUNAL GARMENT MENDING PRACTICES

> In multi-sited ethnography, comparison emerges from putting questions to an emergent object of study whose contours, sites, and relationships are not known beforehand, but are themselves a contribution of making an account that has different, complexly connected real-world sites of investigation. The object of study is ultimately mobile and multiply situated, so any ethnography of such an object will have a comparative dimension that is integral to it, in the form of juxtapositions of phenomena that conventionally have appeared to be (or conceptually have been kept) 'worlds apart'.
> (Marcus, 1995, p. 102).

As mentioned before (see Chapter 4), alongside my fieldwork in Helsinki (Finland), I began following the larger Fixer Movement online. In trying to draw the strings together and connect the global with the local (Marcus, 1995), a natural curiosity towards the progression of the global movement and development of repair cafés arose, due to which I noticed that similar practices were present in New Zealand. Upon further research, I found the Gribblehirst Community Hub in Auckland New Zealand, which hosted community repair events. I contacted them and found that their events were local to the city of Auckland and hosted at the same place every month.

With the discovery of the regular communal events in New Zealand I decided to follow the practice of mending by moving there for a while. As Marcus (1995) states, multi-sited ethnography is an ethnography that links sites that are not so obvious, and it is through these juxtapositions that the researcher begins to develop theoretical conceptualizations of the object of study with no pre-exiting models. My work had not been a controlled comparative research, but as I began to unravel the contours of the object of my study, each new insight unfolded the heterogeneous nature of mending. One insight that emerged through my fieldwork in Helsinki on mending as a practice was that a new uni-dentified knowledge (at the time) was awakening among the menders. Therefore, I asked my third sub-question:

How do menders actively learn during and through doing mending?

Anchored within the sociomaterial theoretical framework of learning (Fenwick, 2010, 2015; Gherardi, 2012, 2017), the second identified effect of being in practice, this article abductively analyses the collected data to answer this question. The data for the present article were based on my fieldwork in Auckland and Wellington in August–October 2017. I gathered the data using a mix of methods, including in-depth interviews (semi- and unstructured interviews/informal conversations), short surveys, pictures, short video clips, web research, and participant observations. Being able to revisit the communal-led mending events here on a more regular basis greatly benefitted my data collection, analysis and findings. Taking its lead from the previous paper, this article studies how vernacular menders learned their practice and became part of a community of menders. I identified and examined in detail three inter-related learning streams that emerged from the menders' practices: material, communal and environmental learning. As I continued to explore and

dig deeper into the sociomaterial practices of mending in these vernacular spaces, it became clear that the ways in which expert menders or a novice recruits learned were not very different. Among all the menders, learning was tied tightly to their sociomaterial world and was a process that evolved over time in situated ways (Fenwick, 2015). Therefore, among all the menders, learning resulted from their lived experiences and the entanglements of sociomaterial and discursive processes; not solely through an exercise of their minds.

My own experiences and my conversations with and observations of the menders revealed how the menders learned to mend both with and through others, with and through materials. This resulted in certain heightened sensibilities manifested through the vernacular menders' reflections on learning about differences in material qualities, the importance of mending for extending garment use, giving back to the community, minimizing waste by valuing existing garments, and learning to care for their garments. Moreover, they gained a feeling of self-reliance through fixing garments and being able to bring them back into use. The article also confirms the arguments of Article 2 by showing the active nature of people in combating such large-scale problems associated with fast fashion. The fact that these events were not organized by professional designers (as in Helsinki) but by the community itself further strengthened the power of collectives. Professionals were occasionally invited to host an event but it was the everyday volunteer menders who helped and spread the practice of mending to newly recruited menders. Their collective practices also resulted in creating feelings of pride in wearing mended clothing as badges of honour.

This paper therefore contributes a deeper understanding of how everyday people engage in practices and learn-in-doing through mending. Thus, knowing and learning emerged not solely from a cognitive exercise, but unfolded through being in practice. Consequently, this article shows how menders learn, or how learning-in-doing unravels. It thus continues to reveal the multi-layered practice of mending as a practice that is also rich in learning. Moreover, it focuses on the integral role that informal platforms can play in supporting the emerging practices of alternative garment use. Yet, these platforms often remain under researched, as mentioned in Chapter 1, and the paper thus highlights the importance of situating future research within these arenas.

5.4 ARTICLE 4: SENSED ATTACHMENTS: DOING TASTE IN AND THROUGH GARMENT MENDING PRACTICES

The final article of the dissertation explores the fourth sub-question:

How do menders sustain their practices?

This question is explored by theoretically drawing on the concept of taste as a reflexive activity (Hennion, 2004) and identifying the third conceptual effect of the sociomaterial affectivity of being in practice. This article is thus based on the data accumulated over the course of three years of fieldwork: all 67 interviews of participating menders and organizers, informal conversations, field notes, pictures, short video clips, web research, and short surveys. The main motivation for this article was born in the early stages of my fieldwork in Edinburgh from the end of May to June 2018. While in Edinburgh, I often conversed with the menders attending the Thursday 'Repair Surgery' organized by the Remakery. It was there I began noticing a peculiar passion with which the menders talked about their practice; a passion similar to that I had noticed during my fieldwork in other sites. It reminded me in particular of one of the very first conversations I had with a mender in Helsinki. This Finnish mender, after fixing her jeans emphatically said that she would keep mending, as she had developed a 'taste for it'. Her saying this made me wonder how everyday menders form a taste for a practice. What mechanisms are at play that makes them sense-able (become able to sense) to assess their practice, connect to their practice and actively develop this passion through being in practice?

These reflections on the Finnish menders' expressive narration, combined with abductively analysing the data collected from all the sites led me to explore this effect of mending. By focusing on the role of the body and the interplay between the sensing body (Strati, 2007) and the materials together with Hennion's (2007, 2004) works on taste, I began to explore how menders sustained their practice and developed this passion over time, rather than going down the usual route of explaining garment mending practices as being driven by *a priori* attachments or product-person attachments (see Ramirez & Ward, 2011; Hirscher, 2013; Niinimäki & Koskinen, 2011; Niinimäki & Armstrong, 2013; McLaren & McLauchlan, 2015; Norum, 2013). This article explores practice-person attachments by understanding attachment as a reflexive relationship with "different intensities and qualities" (Dumont, 2014, p. 371) which is gradually constructed with the practice itself. It uses the notion of taste to dialogue with the collected data, resulting in the identification of how

menders become able to assess the quality of their practices through training their senses. The article thus deliberates on how taste is made through performativity, material affectivity and heterogeneous corporeal experiences and becomes mingled with everyday practices of garment mending, resulting in attachments that get sensed over time.

The findings then revealed the elaborate procedures and processes that the menders engaged in and undertook while maintaining a normative framework of quality control (Gherardi, 2009 b) for their practice. This framework was often moulded and reshaped, as the menders continued to negotiate through their bodies with the materials and the collective in their ways of mending. As they continuously worked with and through the materials and the collective, their decision-making processes were informed by their corporeal experiences. This further led them to discover new ways of mending that they constantly refined over time as they coped with new challenges that continuously arose from being in practice. Different menders corporeally experienced these negotiations differently, which resulted in varying sensed attachments to the practice. For example, those with more experience worked easily with the rhythms of the sewing machine, whereas newcomers to the practice found becoming attuned to the sounds and speed of the machine difficult when working on their mends. For the newcomers, these sensorial experiences resulted in various feelings of stress or tension, which were slowly worked on collectively as the menders continued to stay in practice and were informed by their senses on how to move their bodies in tandem with the machine, for example, finding the 'right' back posture or distance from the machine, all the while refining their practices. Although variations existed, the enactments of the sensed effect created from being entangled in the sociomateriality of mending practices was common to all menders. This was then understood as the grip or hold of the practice; attachment to the practice, the effect of participating in a practice, and the reflexive strength of the taste discovered through repeated work, trial and error, and negotiating relationships with the body and the objects, all of which kept the practice going. Exploring these aspects resulted in constantly refining the ways of mending and moving from rough to refined ways of mending.

The intimately shared moments between menders and their practice led to an appreciation of their practice, the sense-ability to assess the quality of their practice while lengthening the physical life, reshaping the symbolic life and redefining the aesthetic life of garments. This article provides an in-depth ethnographic account of the specific processes

involved in producing these localized configurations of knowledge. It focuses on the hold of the practice, the moments when the practice was performed, informed and reformed while continuously being sustained. Moreover, everyday menders revealed sites of disrupting the existing social and material orders by defying mainstream wasteful fashion practices and levelling off the playing field by challenging designers as the sole authors of clothing through active engagement in appropriating garments. They exemplified variations in dress practices, slowly became attuned to the matters that make up their clothing while actively developing attachment in and to their practice. Thus, the article highlights how everyday mending practices are not mindless reproductions of existing ways of doing; they are sensed through the body and reflexively performed in dynamic ways.

6

DISCUSSING MENDING

"With one thread, a one-dimensional object, you create a three-dimensional link between two things. There is something very transcendental about mending. It's basically the power of one bit of metal (a needle) over a fabric. This is very exciting for me!"
(Vernacular Mender, Wellington, New Zealand, 10/08/2017).

This concluding chapter of the dissertation is divided into three sections. The first presents a discussion on the contributing insights generated through the research. This is followed by addressing the implications of the work. The third section suggests avenues for future research.

6.1 INSIGHTS: HOW MENDING COMES TO MATTER

Often under-explored, research on garment mending has suffered from a domineering view that has demarcated it as a practice of the past (Clark, 2008). The current debate on the topic, as shown in Chapter 1, is scattered with multiple contradictions and isolated solutions as ways to 'steer' people towards mending. Furthermore, peoples' practices have continued to be understood through only linear cognitively driven approaches, and change has been expected to come about through altering various external cognitive stimuli in a top-down manner. In other words, it is assumed that if people are either informed via formal education, media campaigns or equipped with new well-designed garments, they will mend more and keep garments in use for longer, and change will cascade into all aspects of their lives (Hargreaves, 2011). Shove (2010) suggests part of the reason why such propositions aimed at reducing waste are pursued (and often fail) lies within a cognitive-driven theoretical assumption and understanding of social practices. Binary suppositions, such as those highlighted in Chapter 1, often reflect an underlying comprehension of practices as resulting purely from retail environments. They consider people to be free, rational-minded agents, operating in stable contexts and who, when well informed, alter practices (Hampton & Adams, 2018). To bring change in practices, peoples' attitudes are studied and targeted (Shove, 2010) without fully addressing the sociomaterially entangled nature of practices.

It is for this reason that the present study switched from merely evaluating perspectives of mending to focusing on the actual practices of mending. Instead of asking why people do or do not mend, this study provided renewed insights by extensively and ethnographically studying *how* people currently *do* mend. By moving away from merely cognitive-driven understandings, the study took practice-based theories as its point of theoretical departure. In doing so, this research set out to examine the intimately tied social as well as material elements of use that became visible when exploring the process of mending ethnographically. Through an in-depth long-term examination of the real-life practices of everyday menders as they unfold within these vernacular spaces the complexities of practices allowed to surface. And so, instead of singling

out people as operating in social vacuums and material silos with stable contexts this research pointed to understanding first the complexity of sociomaterial context within and through which alternative practices of garment use surface. It aimed to address the larger research question on how existing practices of garment mending, those lying outside of fast-fashion systems, come to matter. The insights that resulted are discussed below.

6.1.1 At the intersection of creativity, care, and competencies

Practices can be studied through several methodological and theoretical approaches. The core aim of this study was to examine a practice as it occurs in real-time across space (Marcus, 1995). As prior research on the emerging practices of garment mending at communal events was scant, an in-depth descriptive exploration of the practice had to be initiated. Therefore, I used a multi-sited ethnographic methodology to better understand and capture the essence of existing mending practices. Moreover, a sociomaterial conceptualization of mending revealed that practices are not monolithic but multi-faceted and deeply entangled within social and material contexts. As the observed practices were multi-layered, nuanced and dynamic, drawing from a single perspective would not have done justice to the analysis of the data of this work. Hence the study switched between four conceptual lenses to bring to light the complexities in practices of garment mending.

This research first introduced a novel theoretical approach based on practice-based theories to the study of garment mending, an approach not previously undertaken by studies of this topic. By tracing the 'career' (or history) of mending as understood through an identification of the matters constituting mending itself, this study put the practice back on the map and proposed theoretically re-classifying it as an established entity (Article 1). In other words, it moved away from focusing on individual drivers or motivations as characteristics of people towards taking the practices themselves as the unit of analysis (Shove et al., 2012). This resulted in a non-normative approach to practices that enabled renewed understanding of mending; not as a bygone practice, but as a practice relocated from the private to the public sphere. Being outside fast-fashion systems, rather than a frequented practice of need, the status of mending changed into one of commodity activism (Middleton, 2015). Making such a theoretical switch in mending highlighted and acknowledged the transitions currently unfolding in the practices of mending as crucial grounds for research on clothing use practices.

Secondly, the in-depth analysis of data collected ethnographically and supported by an abductive logic of inquiry further resulted in empirically analysing mending as a performance/on-going accomplishment of knowledge (Gherardi, 2008) through three additional conceptual effects: creativity, learning, and taste, which unfolded while being in practice. As noted in Chapter 1 and 5, the number of empirical studies on the topic was limited in both scope and depth. Hence, this long-term multi-sited ethnography enabled an in-depth and fresh approach to the nuances in the practice that prior research has overlooked. Relying on a relational onto-epistemology instead of individualist epistemology revealed the entangled relationship between humans and non-humans that exists in the everyday making of the world (Tangaard, 2013).

This resulted in the treatment of practice as a *philosophy* or an onto-epistemic unit (Orlikowski, 2010). The study, therefore, took knowledge as emerging from these inseparable, intimate entanglements of the social with the material forces, and human with non-human, which results from being in everyday practices. It did not see knowledge as separated from practices but as emerging in practice (Gherardi, 2008), and it did not conceptualize change in practice as resulting from filling 'information gaps' (Hargreaves, 2011). In other words, change in this paradigm was not conceptualized as macro-level change through 'extraordinary processes' (Tanggaard, 2013); it focused more on identifying change within individual groups of participants as an on-going continuous process of making adjustments as they engaged in mending practices. This explained their practices from within or as enactments of knowledge that unfolded through the 'intra-actions' (Barad, 2007) of humans with non-humans, with possibilities of gradual change ever-present and "embedded within and occurring as part of social practices" (Kurz, Gardner, Verplanken & Abraham, 2015, p. 82).

Thirdly, each identified conceptual effect provided a framework through which to approach, analyse and understand the complexities in the mending practices of various menders. These menders came to be categorized as vernacular menders and their practices understood as situated, embodied and routinized, yet dynamic. The process undertaken for the outputs created by the vernacular menders resulted in 'informal design'. Unlike prior studies on mending that have tended to focus on the mended garment, this research explored the actual process undertaken to mend garments. Studying the process of mending itself enabled better identification of variations and/or differences present in the ways of mending and helped better define it and recognize the co-existence

of both static and dynamic aspects; processes and outcomes resulting from and existing within the practice of mending (see Article 2). New insights into how menders bring order to and organize their practice through the performance of mending were also revealed. Through the extensive procedures and protocols employed and the decisions made when performing mending, from defining the type of damage to experimenting with various fabrics and yarns, the process of mending came to be understood as being ordered through these sociomaterial entanglements (Article 2).

These sociomaterial dependencies of the vernacular menders further showed that mending did not lie in the lower ends of creativity (Lapolla & Sanders, 2015). Instead, the intricate and intimate interplay that unfolded between the knowing body and the objects of knowledge revealed how menders traced the current ways of doing and systematically and experientially built on them, resulting in new and often unique solutions for damaged garments. This portrayed the multi-faceted aspects laden within the practice of mending as a complex problem-solving creative practice. By ethnographically following mending practices, the study identified how non-professional designers actively came to extend design through mending. This correspondingly revealed the fluid nature of designed objects and the active nature of peoples' engagements. A discussion began on expanding the current understandings of design so that they did not end with the purchase of a garment, but continued to become through practices of mending.

Fourthly, additional insights that emerged from the research revealed that menders' learning practices are anchored in the sociomateriality of practices and are not the results of a merely cognitive process. Although previous research hints at linkage between the role of social relations and practices of garment maintenance and care (Gwilt, 2014,2015; Gwilt, Leaver, Fisher & Young, 2017), how people actively learn these sensibilities has not been explored. In taking a sociomaterial practice theoretical approach, this study presented new knowledge on how the affectivity of materials creates effects on humans and vice versa, aiding menders' learning processes. Through the continuous entangled interplay and negotiations that unfolded between the menders and their garments while trying to read the friction or fusion of a fabric as each stitch was threaded into or onto the garment, the menders became able to make decisions on the next course of action while being in practice, which made their learning outcomes identifiable. These were then acknowledged as material learning, communal learning and environmental learning.

As the menders worked with and through their sensing bodies, entangled with the tactility of the garments, they became able to identify variations in material qualities, understand how garments were constructed, and to differentiate between the feasibility of each mend in relation to the material. As Sennett (2008) notes, "it is by fixing things that we often get to understand how they work" (p. 199). Through mending in the company of others, the menders also formed communal bonds while actively developing sensibilities of how to better care for their garments through the process of mending (Article 3). This further pointed towards mending as a form of expertise that is in defiance of productivist neo-liberal logic of creating and valuing 'new' innovations that often ignore the care that comes during the end-of-life phase of objects (Graziano & Trogal, 2019).

The elaborate ways and procedures through which menders performed their practices into being further revealed mending practices as not merely reproductive but also reflexive. The step-by-step undertaking and organizing of their mends, resulting in the above-mentioned learning outcomes, all reveal how the menders become able to skilfully assess the contours and quality of their practice. By being in practice, not only did the functional benefits of mending come to the surface, but the material knowledge was articulated and materialized through the enactments of mending while itself becoming embedded in the mended garments. This relationship that formed among and between menders, their materials and practices, revealed how menders became attached to their practice. Earlier research on clothing use practices, in general, has explored the phenomenon of attachment to garments or product-person attachment as a psychological phenomenon, and often cited it as the basis for mending (see McLaren & McLauchlan, 2015; Niinimäki, & Armstrong, 2013). How these attachments are actively achieved has yet to be explored. This study, therefore, shifted the focus away from cognitively determined product-person attachments and contributed to revealing new knowledge on the *practice-person attachment* that results in and through the engagement of vernacular menders' sociomaterial practices (Article 4).

Misconceptions often exist within academic research that garments purchased from fast fashion outlets are not mended or that only special garments are mended (McLaren & McLauchlan, 2015), yet my findings revealed the contrary. A range of garments was brought to the communal events, to be fixed in various ways. The processes through which garments were mended formed the focus of the analysis and were

vital for understanding the entangled relationship between social and material aspects, which impacts the sustenance of the practice more than mere cognitively driven factors. Thus, the study revealed how non-professional menders, through their bodily experiences with materials and other menders, actively form attachment relationships with their practice, which were essential to keep the practice going.

Focusing on the role of the body and the interplay between the sensing body and the materials revealed that this attachment developed over time as the menders learned to construct taste in their practice and to develop a passion for their practice. Studying the ways in which the menders became informed through their corporeal experiences of working with fabrics; the rhythms of the sewing machine, tips, and tricks from other menders, and material feedback revealed the multifarious sociomaterial intricacies of the practice. Not only were the menders tightly knit in a web of matter, but over time and through individual training of their senses and collective and material feedback (Hennion, 2004), they became able to reflexively respond and remain in practice while making alterations to their practice as and when needed, and refining it. Thus, the present study revealed that *a priori* attachments were not the only basis of mending. Instead, as the menders engaged in mending the garments, they learned to assess the quality of the practice, resulting in an appreciation for and a range of attachments to the practice that helped fix their garments (Article 4).

Finally, in exploring the entangled interplay that occurs within the relationship between humans and non-humans, this study anchored itself in a pragmatic philosophical paradigm. Building on this, a sociomaterial practice-based theoretical conceptualization of the study of mending identified the role of humans and non-human or social and material elements in creating novel understandings of how the practice of mending comes to be performed, learned and sustained. Garments that skirted around the edge of chaos and abandonment slowly and systematically became renewed and desired again. In this way, vernacular menders were seen as challenging not only the existing social orders but also material orders. This study, therefore, helped overcome the theoretical dualisms between mind-matter and body, social and material, nature and culture, human and non-human, designer and user, and developed an in-depth, non-cognitive driven understanding of mending as a practice residing at the intersection of creativity, care, and competencies. Subsequently, showing *how mending comes to matter* in a clothing use context.

6.2   IMPLICATIONS: FROM DESPAIR TO REPAIR
Drawing on the above-provided insights of this work, three interlinked
areas for debate or implications can be opened up that can additionally
address the contentions identified in Chapter 1. I divide the realms of
discussion in terms of; theoretical, methodological and practical. The
first two are tackled in section 6.2.1 while the latter discussion is taken
on in section 6.2.2.

6.2.1   Reframing user imaginaries
At the heart of this study was an improved understanding of everyday
practices of garment use. Moving away from the view of user practices
as intrinsically and entirely problematic, the study was also mindful not
to aggrandize their practices. In trying to maintain this delicate balance,
the study conducted an in-depth analysis of how practices of garment
mending are performed, learned and sustained. Therefore, it attempted
to provide renewed, insights into the world of garment mending by ini-
tiating a discussion on seeing existing practices as instructive rather
than destructive. The ethnographic study of mending saw the intricate
ways of doing mundane tasks as rich spaces for understanding how prac-
tices are ordered, learned and constantly refined, reflexively challenging
existing social and material orders. By being in practice, people actively
extended design in and through mending, addressed global problems
of textile waste through customized local acts of repair and gradually
attuned to the garments' matter, while actively forming an attachment
to their practice.

Taking a sociomaterial practice theoretical stance, one that is phil-
osophically grounded in pragmatism, allowed us to study and under-
stand practices from within. This resulted in recognizing the context
within which practices surface and in which the subliminal dimensions
of practices as ongoing processes are situated: corporeal, routine yet
dynamic, and tied to a sociomaterial world. Placing the unit of analy-
sis onto people's *practices* rather than their *perspectives* made the various
processes, procedures, protocols that were undertaken while menders
were in practice visibly recognizable. Zooming in on these mundane
practices can thus be very revealing for theoretically expanding knowl-
edge on both fashion design and use. Examining practices through the
entangled orchestration of materials with human bodies can help over-
come dichotomized views of what fashion designers and users do or can
do. Ways of knowing are not separated from ways of doing, instead ways
of doing are examined to identify ways of knowing as they emerge from

being in practice. This allows broader parallels to be drawn between the practices of users and fashion designers, seeing them not as polarized but as intricately overlapping.

Although the work of designers is generally widely recognized as problem-solving through the manipulation of matter (see Cross, 2006), this study revealed that 'designerly' processes are not exclusive to professional fashion designers, but are also mirrored in non-designer practices. In trying to work their way through their mends, vernacular menders not only gave form to the matter but were also informed by it (Articles 2–4). Recognizing user practices in this light can reveal new directions for fashion designers and researchers alike. When people are acknowledged as actively engaging and appropriating garments in various ways that are reflective of professional design practices, a need arises for revising conceptualizations on 'use' and design. Kimbell (2011) too has noted the importance of extending the present understanding of design as going beyond professionals. She claims that design can be understood as a "set of routines that emerge in a context" (Kimbell, 2011, p. 300), with designers being one of the many stakeholders involved in solving problems while working in close proximity with materials in a situated manner. When viewed from this vantage point, users' practices are no longer practices that just use, but practices that are rich in organization, design, creativity, and learning. How these insights can be tapped into is then a question of methodology and is linked to the second implication of this work.

What is surprising to note is that products are often used in ways that deviate from the intention of the designer (Shove, Watson & Ingram, 2007). Yet, as mentioned in Chapter 1, even if individuals are involved in the research stage usually in short-lived workshops with controlled variables, the focus remains on their perceptions and not on the processes of practices. Fashion researchers have not examined how people undertake and bring their practice into being and the ways in which they appropriate garments through acts of repair. For instance, by asking questions also addressed in this study, such as; how are garments mended; what types of techniques are used; what types of mends are undertaken; what materials are used; how are these materials used; how are these materials experienced, spoken about and sensed; how are senses trained through mending, we can gain various novel insights into everyday practices of garment use.

In order to explore these questions and truly get to the core of practices, fashion researchers could benefit from employing and

incorporating long-term ethnographic research methods when study-
ing mending practices, and focus on the sensorial lived experiences of
people by taking a non-normative view of their practices. Rather than
experimenting with instructions for participants to work in inorganic
settings (Norum, 2013; Gwilt, 2014; Lapolla & Sanders, 2015; McLaren
& McLauchlan, 2015), we need to study mending practices in real-life
situations. Fashion researchers could then borrow from ethnographic
methodologies, as shown through this dissertation, to develop research
designs for advancing future long-term studies on garment mending
practices. This could further help address the problem of definition, as
identified in Chapter 1. If a methodological switch is made to focusing
on existing practices, knowledge can be generated on what is actually
included in mending and what is not. This can then be useful for fashion
researchers to better define mending and accurately document changes
in the practice in the future. Using data derived from qualitatively exam-
ining practices can inform quantitative data collection as well. Generat-
ing data collectively in this way from both methods could account for
any potential gaps or discrepancies and result in the overall delivery of
even richer understanding of garment mending.

     Studying the existing ways of mending up close can inform fash-
ion designers on how garments are actually used and actively appropri-
ated. This knowledge can be beneficial, as it also opens up discussion on
re-assessing current ways of educating designers and calls for dismantling
present narratives on designers as sole 'agents of change'. Design can
never entirely determine the use of a garment (Graham &Thrift, 2007).
Therefore, by importing everyday expertise arising through the activ-
ities of vernacular spaces to design education and research, methods
for exploring new roles for fashion designers can be explored. These
roles could take the form of what Holyroyd (2013) calls 'meta-design-
ers' where fashion designers work in close collaboration with people and
collaboratively share their knowledge in an attempt at extending the life
of existing clothing. However, it is important to note that people do not
operate in silos. Thus, on the subject of extending the use-time of gar-
ments, larger systems also need to be in place. This leads us to our final
discussion point, that of practical implications.

6.2.2   Towards de-growth and policy makeovers?

As shown, a practice theoretical approach to the study of mending
revealed that practices are intricately linked to their social and material
environments, which both shape and are shaped by each other. Although

the focus of this study was on vernacular mender practices, these were always examined in relation to professional menders, material environments, or mended garments. This move towards a relational ontology from an individualist one enabled the present study to view practices of organizing, learning, refining mending as sociomaterially entangled and reflexively performed. This further indicated a need to also address larger structural changes when addressing change in consumption practices. One way of doing this is to acknowledge vernacular spaces or informal learning platforms such as communal groups as potential arenas for rich learning experiences that could promote local solutions to global ecological problems of garment waste.

Studying existing mending practices through practice theories may thus be useful for delivering various valuable insights into the alternative practices that need addressing to policy-makers. One way of doing so, often recommended by practice theorists, is to switch from the 'generalizability and reproducibility' of an 'evidence-based policy' paradigm towards one that accounts for the depth of 'social scientific output' (Hampton & Adams, 2018). Thus, "a more inclusive epistemic paradigm might include principles of exploration, experimentation or participation", which are needed to understand and address meso-micro domains of change (Hampton & Adams, 2018). Doing so could consequently open up larger discussions on how best to observe, measure and address variations within micro-group practices as well. Practice theorists therefore urge policy-makers to address transformative changes occurring in society rather than to pursue goals such as macro-level substantial behaviour changes. However, what kind of renewed model of making-policy could be developed and how remains an open question and under discussion (see Hampton & Adams, 2018). Some potential suggestions could include policy-makers working in close collaboration with both the civil society and designers to strategize policies that support informal local platforms in which designers and users meet to collectively work towards pro-environmental action. Moreover, local municipalities and/or funding agencies could support the local community hubs and social enterprises that presently organize repair events, by providing permanent spaces to regularize mending practices. This is currently operational in New Zealand, and other countries, including Finland, could also benefit from doing this. As mentioned earlier, the mending events in Helsinki were pop-up due to (as the organizers mentioned during their interviews) limited public funding for such endeavours.

Public policies, therefore, need to focus on providing systems of provision that are in support of harnessing, nurturing and spreading alternative practices and informal platforms that presently lie outside formal market systems of exchange. To better address problems associated with textile waste, making moves away from production-focused neo-liberal agendas need to be initiated. Moving towards anti-production and anti-consumption practices that are situated within the de-growth ethos and exemplified in the works of informal communal spaces need to be given consideration. Graziano and Trogal (2019) note that drastic changes in production practices need to take place if we are ever going to address the limiting planetary boundaries that no-longer can sustain the pace at which products are wasted. They note that repairing is further considered to be more ecologically friendly as opposed to recycling. The environmental footprint that is made through material recovery and recycling in terms of water usage and intensive energy consumption makes it difficult to reconcile the relationship between limited material resources and waste levels. Therefore, supporting repair practices within informal communal spaces is not only valuable but ecological.

This research began with a presentation of the paradoxes currently present within present debate on the topic of garment mending. Various questions were raised that asked if we were merely writing off prescriptive solutions to the environmental crisis and inadvertently neglecting the critical examination of the structures and systems that influence the practices of use, care and repair? Finding answers to the questions raised at the start of this dissertation is just as complex as the questions themselves. However, in ethnographically studying and presenting insights into the dynamic nature of mending practices lying outside mainstream fast-fashion systems, this work made an attempt in that direction. It was precisely for this reason that instead of focusing on the *why*, this study examined the *how* of garment mending practices. By studying how menders perform, learn and sustain mending, revealed everyday user practices as not merely reproductive but as dynamic and reflexive. Informal social platforms were recognized as providing rich spaces in which people can collectively learn mending first-hand and the current conception of users as merely cognitively driven, passive recipients of garments was challenged. In addition, the inclusive practices of these groups demonstrated how collective actions at the grassroot level create customized, diverse and creative solutions to larger textile waste problems. The study, therefore, calls on future researchers and policy-makers alike to acknowledge non-market-based practices as rich arenas of research from which to learn

and catch up to. Consequently, researching communal sites such as these indicates the intricacies of mundane practices and the critical role of vernacular menders in assisting shifts in clothing use practices. Forging ways towards a better tomorrow can only be made possible in a world where parallel systems are recognized, non-conformity is appreciated, glass ceilings are broken and hierarchies are slashed. If true sustainability has a chance at being attained, diversity and inclusivity are needed at every front, for in the words of Albert Maysles (Brand, 2018), "tyranny is the deliberate removal of nuance" and cancerous to our common future.

6.3   LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

This study aimed to expand the present understanding of mending practices as being interlaced in a sociomaterially sustained world. Its focus was not only on the social but also on the materiality of practices. By ethnographically studying the dynamic interplay between humans and non-humans, the study identified how people actively engage with their garments and extends design in use through acts of repair. Thus, it saw the nature of fashion design and designed objects as fluid and unabating. Moreover, as people constantly find new ways to mend, not only do they refine their practices, they also create situated configurations of knowledge that materialized in their mended garments. Their ways of mending reflect how globalized problems of textile waste are addressed in localized ways. How these mends are made can then be central to future research.

While this research did provide fresh insights into the practice of mending and studied the practice in-depth, I do acknowledge that the research was context specific and led by the particulars of its' research design. In so doing, some aspects were given more importance than others. However, due to limitations in the time requirements of a doctoral dissertation compromise had to be made. Nevertheless, the aspects that were not included in this research I will mention them here as they can open up opportunities for future research to explore in-depth. Firstly, the primary aim of this work was to illustrate, understand and analyse how mending is performed, learned and sustained by focusing on the interplay between the body of the menders and the materials. In so doing, I did not focus on how political discourses are shaped, learned and performed in communal spaces. Future research could explore this aspect in detail.

Secondly, by taking and introducing breakdown as the starting point in the design process, new approaches to design education can be explored and incorporated in the fashion and textile design education

curriculum. New ways to learn can be developed that use lived-in garments as rich material knowledge sources. By examining the existing mended and or broken clothing that people own can be used by way of wardrobe studies' methodologies to examine the damages that have occurred to existing garments. How the abrasion was caused, what material properties result in more breakages than others, how the garment was woven, what weaving techniques are prone to easy breakages, how textiles can be woven differently, what areas are damaged the most, what methods people commonly employ people to fix these garments, what materials are used to mend, how the mends are made: these are questions for future researchers, fashion and textile educators.

Thirdly, future research can explore how fashion designers can forge collaborations with local thrift stores to refurbish and restore existing garments instead of creating new easy-to-repair garments. This can be undertaken with the aim of using unsold second-hand garments to explore how they can be repaired and up-cycled to support-de-growth initiatives. Perhaps this approach could better equip at closing material loops than merely extracting more from the planet and thus needs to be explored further. Only by limiting the extraction of virgin materials can we truly begin to address and bring circularity into fashion. Yet, this too needs to be coupled with larger frameworks that support social mending platforms.

Therefore, and lastly, future research could take a more systems-thinking approach to the study of how garment-mending eco-systems can be created, supported and expanded. This also presents the opportunity to explore alternative roles for both fashion and textile designers that support pro-environmental systems and practices. The insights provided through the findings of this study could then be used as a stepping stone to advancing future research in the above mentioned directions.

REFERENCES

Alkemeyer, T., & Buschmann, N. (2017). Learning in and across Practices. Enablement as Subjectivation. In Hui, A., Schatzki, T., & Shove, E. (Eds.). *The Nexus of Practices: Connections, Constellations, Practitioners*, (pp. 8–23).Taylor and Francis.

Arsel, Z., & Bean, J. (2012). Taste regimes and market-mediated practice. *Journal of Consumer Research*, 39(5), 899–917.

Barad, K. (2003). Posthumanist performativity: Toward an understanding of how matter comes to matter. *Signs: Journal of women in culture and society*, 28(3), 801–831.

Barad, K. (2007). *Meeting the universe halfway: Quantum physics and the entanglement of matter and meaning*. Durham and London, Duke University Press.

Berg, B. L., & Lune, H. (2012). *Qualitative research methods for the social sciences (8th ed.)*. Boston, MA: Pearson Education.

Bentia, D.C .(2014). Sensuous Pageantry: Slow Food Fairs' Alternating Sensory Orders towards Taste Change. *The Senses and Society*, 9(2), 174–193.

Brierley, J.A. (2017). The role of pragmatist paradigm when adopting mixed methods in behavioural accounting research. *International Journal of Behavioural Accounting and Finance*, 6 (2), 140–154.

Black, S. (2012). *The sustainable fashion handbook*. Thames and Hudson.

Bourdieu, P. (1977). *Outline of a Theory of Practice* (Vol. 16). Cambridge University Press.

Bourdieu, P. (1984). *Distinction*. Translated by Richard Nice. Cambridge, MA: Harvard University.

Bogusz, T. (2012). Experiencing practical knowledge. Emerging convergences of pragmatism and sociological practice theory. *European Journal of Pragmatism and American Philosophy*, 4(IV-1).

Bras, Klapwijk, R. M., & Knot, J. M. C. (2001). Strategic environmental assessment for sustainable households in 2050: illustrated for clothing. *Sustainable Development*, 9(2), 109–118.

Burawoy, M. (2003). Revisits: An outline of a theory of reflexive ethnography. *American Sociological Review*, 68 (5):645–79.

Busch, V. O. (2011). Community Repair: Challenging a Community of Non-Commitment. In D. Williams and O. Von Busch (Eds.), *Community Repair: strategic social skill mobilization for sustainable fashion*. (pp. 7–9). University of the Arts London, Centre for Sustainable Fashion and the Knowledge Foundation.

Buch, A. & Elkjær, B. (2015). Pragmatism and practice theory: Convergenses or collisions. In *Organizational Learning and Knowledge Capabilities (OLKC)*. Milano, Italy.

Charter, M., & S. Keiller. (2019). Repair cafes: Circular and social innovation. In M. Charter (Ed.), *Designing for the Circular Economy*, (pp. 270–284). Routledge.

Clark, H. (2008). SLOW + FASHION—an Oxymoron—or a Promise for the Future …?, *Fashion Theory*, 12:4, 427–446

Collins, C. S., & Stockton, C. M. (2018). The central role of theory in qualitative research. *International Journal of Qualitative Methods*, 17(1), 1–10.

Cross, N. (2006). *Designerly ways of knowing*. London. Springer.

Dewey, J. (1929). *The Quest for Certainty*. London: George Allen and Unwin.

Dewey, J. (1938). *Logic: The Theory of Inquiry*. New York: Holt, Rinehart and Winston.

Desmond, M. (2014). Relational ethnography. *Theory and Society*, 43(5), 547–579.

Diddi, S., & Yan, R. N. (2019). Consumer Perceptions Related to Clothing Repair and Community Mending Events: A Circular Economy Perspective. *Sustainability*, 11(19), 5306.

Dombek-Keith, K., & Loker, S. (2011). Sustainable Clothing Care by Design. In Gwilt, A., Rissanen, T., (Eds) *Shaping Sustainable Fashion: Changing the Way We Make and Use Clothes,* (pp. 101–116). London, Earthscan: London.

REFERENCES

Dumont, G. (2014). Aesthetics of attachments: Reflexive insights on taste construction in climbing. *European Journal for Sport and Society*, 11(4), 371–387.

Fisher, T., Cooper, T., Woodward, S., Hiller, A., & Goworek, H. (2008). *Public Understanding of Sustainable Clothing: A Report to the Department for Environment Food and Rural Affairs*. London: Defra.

Fenwick, T. (2010). Re-thinking the "thing" sociomaterial approaches to understanding and researching learning in work. *Journal of workplace learning*, 22(1/2), 104–116.

Fenwick, T. (2015). Sociomateriality and Learning: a critical approach. In Malloch, M., Cairns, L., Evans, K., & O'Connor, B. N. (Eds) *The SAGE handbook of workplace learning*. (pp. 83–93).Sage.

Fletcher, K. (2008). *Sustainable fashion & textiles: Design Journeys*. London: Earthscan.

Fletcher, K. (2012). Durability, Fashion, Sustainability: The Processes and Practices of Use. *Fashion Practice Journal*. *4(2)*, 221–238.

Flick, U. (2009). *An introduction to qualitative research*. Sage.

Giddens A. (1984). *The Constitution of Society*. Cambridge:Polity Press.

Gherardi, S. (2000). Practice-based theorizing on learning and knowing in organizations. *Organization*, 7(2), 211–223

Gherardi, S. (2008). Situated Knowledge and Situated Action: What do Practice-based Studies Promise? In D. Barry and H. Hansen (Eds) *The SAGE Handbook of New Approaches in Management and Organization*, (pp. 516–525) Los Angeles, CA: Sage.

Gherardi, S. (2009 a) Community of practice or practices of a community? In Malloch, M., Cairns, L., Evans, K., & O'Connor, B. N. (Eds.). *The Sage Handbook of Management Learning, Education, and Development* (pp. 514–530) Newcastle, UK,:SAGE.

Gherardi, S. (2009 b). Practice? It's a Matter of Taste! *Management Learning*, 50 (5), 535–550.

Gherardi, S. (2011). Organizational Learning: The Sociology of Practice. In M. Easterby-Smith and M. A. Lyles (Eds) *Handbook of Organizational Learning and Knowledge Management*, (pp. 43–66). Chichester: Wiley

Gherardi, S. (2012). *How to Conduct a Practice-based Study: Problems and Methods*. Gloucester: Edward Elgar Publishing Limited.

Gherardi, S. (2017). Sociomateriality in Posthumanist Practice Theory. In A. Hui, T. Schatzki, and E. Shove (Eds) *The Nexus of Practices: Connections, Constellations, Practitioners*, (pp. 38–51). London: Routledge.

Gherardi, S., & Perrotta, M. (2014). Between the hand and the head: How things get done, and how in doing the ways of doing are discovered. *Qualitative Research in Organizations and Management: An International Journal*, 9(2), 134–150.

Gray, D.E. (2009). *Doing Research in the Real World*. London: Sage.

Gram-Hanssen, K. (2011). Understanding change and continuity in residential energy consumption. *Journal of Consumer Culture*, 11(1), 61–78.

Graham, S., & Thrift, N. (2007). Out of order: understanding repair and maintenance. *Theory, Culture & Society*, 24(3), 1–25.

Graziano, V., & Trogal, K. (2019). Repair Matters. *Ephemera* 19(2), 203–277.

Gomart, E., & Hennion, A. (1999). A sociology of attachment: music amateurs, drug people. *The Sociological Review*, 47(1_suppl), 220–247.

Gwilt, A. (2014). What prevents people repairing clothes? : an investigation into community-based approaches to sustainable product service systems for clothing repair. *Making Futures Journal*, 3.

Gwilt, A. (2015). Fashion and sustainability: repairing the clothes we wear. In Gwilt (Ed) *Fashion design for living* (pp. 61–67). Routledge.

Gwilt, A., Leaver, J., Fisher, M., & Young, G. (2017). Understanding the caring practices of people. In *Proceedings of the* PLATE *Conference*, Delft, The Netherlands, 8–10 November 2017.

Hammersley, M., & Atkinson, P. (2007). *Ethnography: Principles in practice* (3rd ed.). Oxon, UK: Routledge.

Hampton, S., & Adams, R. (2018). Behavioural economics vs social practice theory: Perspectives from inside the United Kingdom government. *Energy research & social science,* 46, 214–224.

Hannerz, U. (2003) 'Being there…and there… and there!: reflections on multisite ethnography', *Ethnography*, 4(2), 201–216.

Hargreaves T. (2011). Practice-ing behaviour change: applying social practice theory to pro-environmental behaviour change. *Journal of Consumer Culture*, 11 (1), 79–99.

Hennion, A. (2004). Pragmatics of taste. *The Blackwell companion to the sociology of culture*, 131–144.

Hennion, A. (2007). Those things that hold us together: Taste and sociology. *Cultural sociology,* 1(1), 97–114.

Henke, C. R. (1999). The mechanics of workplace order: Toward a sociology of repair. *Berkeley Journal of Sociology*, 55–81.

Hirscher, A. L. (2013). Fashion Activism Evaluation and Application of Fashion Activism Strategies to Ease Transition Towards Sustainable Consumption Behaviour. *Research Journal of Textile and Apparel*, 17(1), 23–38.

Hvas, K.K. (2018). A Consumer-centered Approach for Managing Post-consumer Textile Flows. In K. Niinimäki, (Ed.) *Sustainable Fashion in a Circular Economy.* (pp. 170–191). Helsinki, Aalto ARTS Books.

Holroyd, A. T. (2013). Rethinking the designer's role: the challenge of unfinished knitwear design. In *Futurescan 2: Collective Voices*. Association of Fashion & Textiles Courses. 162–171.

Holroyd, A. T. (2016). Perceptions and practices of dress-related leisure: shopping, sorting, making and mending. *Annals of Leisure Research*, 19(3), 275–293.

Holroyd, A. T. (2017). *Folk fashion: Understanding homemade clothes*. IB Tauris.

Ingold, T., & Hallam, E. (2007). Creativity and cultural improvisation: an introduction. In T. Ingold, & E. Hallam (Eds.), *Creativity and cultural improvisation* (pp. 1–24). Oxford: Berg.

Jackson, S. J. (2014). Rethinking Repair. *Media technologies: Essays on communication, materiality, and society*, 221–39.

Jackson. P. M. (2016). The Economic Crisis and the Crisis in Economics: Pragmatism and the Ontological Turn. In N.Rumens (Ed) *American pragmatism and organization: Issues and controversies* (pp. 43–58). Routledge.

Kimbell, L. (2011). Rethinking design thinking: Part I. *Design and Culture*, 3(3), 285–306.

Kirchain, R., Olivetti, E., Miller, T. R., & Greene, S. (2015). Sustainable apparel materials. *Materials Systems Laboratory, Massachusetts Institute of Technology*, Cambridge.

Kurz, T., Gardner, B., Verplanken, B., & Abraham, C. (2015). Habitual behaviors or patterns of practice? Explaining and changing repetitive climate-relevant actions. *Wiley Interdisciplinary Reviews: Climate Change,* 6(1), 113–128.

König, A. (2013). A stitch in time: changing cultural constructions of craft and mending. *Culture Unbound: Journal of Current Cultural Research*, 5(4), 569–585.

Laitala, K., & Klepp, I. (2018). Care and Production of Clothing in Norwegian Homes: Environmental Implications of Mending and Making Practices. *Sustainability*, 10(8), 2899.

Lapolla, K., & Sanders, E. B. N. (2015). Using cocreation to engage everyday creativity in reusing and repairing apparel. *Clothing and Textiles Research Journal*, 33(3), 183–198.

Lave, J., & Wenger, E. (1998). *Communities of Practice. Learning, Meaning and Identity*. New York, USA. Cambridge University Press.

Lincoln, Y. S., & Guba, E. G. (1986). But is it rigorous? Trustworthiness and authenticity in naturalistic evaluation. *New directions for program evaluation,* (30), 73–84.

Lipson, J.G. (1991). The use of self in ethnographic research. In Morse JM (ed) *Qualitative Nursing Research: A Contemporary Dialouge* (pp. 73–89). London: Sage Publication.

LeCompte, M., & Preissie, J. (1993). *Ethnography and Qualitative Design in Educational Research,* Second edition. Chicago, IL: Academic Press.

Mackenzie, N., & Knipe, S. (2006). Research dilemmas: Paradigms, methods and methodology. *Issues in educational research*, 16(2), 193–205.

Maestri, L., & Wakkary, R. (2011). Understanding Repair as a Creative Process of Everyday Design. In: Proceeding of the *8th ACM conference on Creativity and Cognition C&C 'II ACM*, New York. USA, 81–90.

Malinowski. B. (1922). *Argonauts of the Western Pacific.* London: Routledge.

Marcus, G. E. (1995). Ethnography in/of the world system: The emergence of multi-sited ethnography. *Annual review of anthropology*, 24(1), 95–117.

Marcus, G. E. (1998). *Ethnography through thick and thin*. Princeton University Press.

Marshall, C., & Rossman, G. B. (2016). *Designing qualitative research* (6th ed.).Thousand Oaks, CA: SAGE.

Mason, J. (2002). *Qualitative researching*. 2nd end. London: Sage.

McLaren, A., & McLauchlan, S. (2015). Crafting sustainable repairs: practice-based approaches to extending the life of clothes. in Cooper, T., Braithwaite, N., Moreno, M. and Salvia, G. (Eds.) *Product Lifetimes and the Environment (PLATE) Conference proceedings*, Nottingham Trent University. Nottingham, 17–19 June 2015.

Middleton, J. (2015). Mending. In Fletcher, K., & Tham, M. (Eds.) *Routledge handbook of sustainability and fashion* (pp.262–274). Routledge.

Minowa, Y., Visconti, L. M., & Maclaran, P. (2012). Researchers' introspection for multi-sited ethnographers: A xenoheteroglossic autoethnography. *Journal of Business Research*, 65(4), 483–489.

Morgan, D. L. (2014). Pragmatism as a paradigm for social research. *Qualitative Inquiry*, 20(8), 1045–1053.

Nicolini, D. (2009). Zooming in and out: Studying practices by switching theoretical lenses and trailing connections. *Organization studies*, 30(12), 1391–1418.

Niinimäki, K., & Koskinen, I. (2011). I love this dress, it makes me feel beautiful! Empathic knowledge in sustainable design. *The Design Journal*, 14(2), 165–186.

Niinimäki, K., & Armstrong, C. (2013). From pleasure in use to preservation of meaningful memories: A closer look at the sustainability of clothing via longevity and attachment. *International Journal of Fashion Design*, Technology and Education, 6(3), 190–199.

Norum, P. S. (2013). Examination of apparel maintenance skills and practices: Implications for sustainable clothing consumption. *Family and Consumer Sciences Research Journal*, 42(2), 124–137.

Orr, J. E. (2006). Ten years of talking about machines. *Organization Studies*, 27(12), 1805–1820.

Orlikowski, W.J. (2007). Sociomaterial practices: Exploring technology at work. *Organization Studies*, 28, 1435–1448.

Orlikowski, W. J. (2009). The sociomateriality of organisational life: considering technology in management research. *Cambridge journal of economics*, 34(1), 125–141.

Orlikowski, W. J. (2010). Practice in research: phenomenon, perspective and philosophy. *Cambridge handbook of strategy as practice*, 23–33.

Ponterotto, J. G. (2006). Brief note on the origins, evolution, and meaning of the qualitative research concept thick description. *The qualitative report*, 11(3), 538–549.

Ramirez, M., & Ward, S. (2011, October). Longterm Product Attachment: A Sustainable Design approach for optimising the relationship between people and products. In *Proceedings of the Tao of Sustainability, International Conference on Sustainable Design Strategies in a Globalization Context*, Beijing, China.

Reckwitz, A. (2002). Toward a Theory of Social Practices: A Development in Culturalist Theorizing. *European Journal of Social Theory* 5.2. 243–63. Print.

Rissanen, T. (2013). *Zero-waste Fashion Design: A Study at the Intersection of Cloth, Fashion Design and Pattern Cutting*. Doctoral dissertation. Sydney: University of Technology.

Revsbæk, L., & Tanggaard, L. (2015). Analyzing in the present. *Qualitative Inquiry*, 21(4), 376–387.

Rodabaugh, K.(2018). *Mending Matters: Stitch, Patch, and Repair Your Favorite Denim & More*. Abrams, New York.

Rosner, D.K. & M.G. Ames. (2014). Designing for repair? Infrastructures and materialities of breakdown. Paper presented at the *17th ACM Conference on Computer Supported Cooperative Work & Social Computing*, Baltimore. USA, February 15–19. [http://www.danielarosner.com]

Rumens, N. and Kelemen. M. (2016). *American pragmatism and organization: Issues and controversies*. Routledge.

Saldana, J. (2003). *Longitudinal qualitative research: Analyzing change through time*. Altamira Press.

Sennett, R. (2008). *The Craftsman*. Yale University Press.

Schatzki,T.R. (1996). *Social Practices: A Wittgensteinian Approach to Human Activity and the Social*. Cambridge: Cambridge University Press.

Schatzki T.R. (2002). *The Site of the Social: A philosophical account of the constitution of social life and change*. Pennsylvania: Pennsylvania State University Press.

Schmid, B. (2019). Repair's diverse transformative geographies: Lessons from a repair community in Stuttgart. *Ephermia*,19(2), 229–251.

Shove, E. (2003). *Comfort, cleanliness and convenience: The social organization of normality*. Oxford: Berg.

Shove, E. (2010). Beyond the ABC: climate change policy and theories of social change. *Environment and planning*, 42(6), 1273–1285.

Shove, E. (2012). Habits and their creatures. The habits of consumption, 12, 100–113.

Shove, E., Watson, M., Hand, M., & Ingram, J. (2007). *The design of everyday life*. Berg.

Shove, E, Pantzar, M and Watson, M. (2012). *The Dynamics of social Practice: Everyday Life and How it Changes*, Sage, Los Angeles, London, New Dehli, Singapore.

Simmel, G. (1997). The Philosophy of Fashion, in D. Frisby and M. Featherstone (eds.) *Simmel on Culture*. London: Sage.

Spelman, E. V. (2002). *Repair: The impulse to restore in a fragile world*. Beacon Press.

Sparkes, A. C. (2009). Ethnography and the senses: Challenges and possibilities. *Qualitative research in sport and exercise*, 1(1), 21–35.

Stewart, A. (1998). *The Ethnographer's Method*. (Vol 46).Sage.

Strati, A. (2007). Sensible knowledge and practice-based learning. *Management learning*, 38(1), 61–77.

Stoller, P. (1989). *The taste of ethnographic things: The senses in anthropology*. University of Pennsylvania Press.

Tanggaard, L. (2013). The sociomateriality of creativity in everyday life. *Culture & Psychology*, 19(1), 20–32.

Tashakkori,A., & Teddlie, C. (2003). *Handbook of Mixed Methods in Social & Behavioural Research*. Thousand Oaks: Sage.

Tellis, W. M. (1997). Application of a case study methodology. *The qualitative report*, 3(3), 1–19.

REFERENCES

Timmermans, S. &, Tavory, I. (2012). Theory construction in qualitative research: From grounded theory to abductive analysis. *Sociological theory*, 30(3), 167–186.

Tomovska, E., Jordeva, S., Trajković, D., & Zafirova, K. (2016). Attitudes towards managing post-industrial apparel cuttings waste. *The Journal of The Textile Institute*, 108(2), 172–177.

Terzioglu, N. (2017). Do-fix: understanding users' product repair experience. *Product Lifetimes and the Environment (PLATE) Conference proceedings,* Delft University of Technology. The Netherlands, 8–10 November 2017.

Veblen, T. (1994/1899). *The Theory of the Leisure Class.* Basingstoke: Macmillan.

Walford, G. (2009). The practice of writing ethnographic fieldnotes. *Ethnography and Education*, 4(2), 117–130.

Warde, A. (2005). Consumption and Theories of Practice. *Journal of Consumer Culture*, 5(2), 131–153.

Watson. T. J. (2016). Pragmatism, Organizations and Getting to Grips with Reality. In N. Rumen (Ed) *American pragmatism and organization: Issues and controversies* (pp.59–72). Routledge.

Wilhite, H. (2008). *Consumption and the Transformation of Everyday Life: A view from South India.* Basingstoke: Palgrave Macmillan.

Wilhite, H (2012). The Energy Dilemma. In Bjørkdahl, K and Nielsen, K. B. (Eds). *Development and Environment: Practices, Theories, Policies* (pp.81–97). Akademika Publishing.

Wolcott. H.F.(1990). Making a study "more ethnographic". *Journal of Contemporary Ethnography*. 19,1, 44–72.

Websites:

Brand. R. (Producer). (2018, February 17). *The invisible man*. [Video podcast]. Retrieved from: https://www.youtube.com/watch?v=vPip3srJGxg&t=884s

Community Recycling Centre (2016). *Devonport Community Recycling Centre*. Retrieved from : http://www.globalactionplanoceania.com/

Gribblehirst Community Hub (2014). *The Hub*. Retrieved from : https://ghub.nz/

Korjaussarja. (2014). *KORJAUSSARJAKOLLEKTIIVI*. Retrieved from: https://korjaussarjakollektiivi.wordpress.com/

Len, M. (2017). Reduced taxation to support re-use and repair. The Re-use and Recycling EU Social Enterprises network (RREUSE). Retrieved from: http://www.rreuse.org/wp-content/uploads/RREUSE-position-on-VAT-2017-Final-website_1.pdf

Middleton, J. (2010). *Sock Exchange*, Cork 2010. Retrieved from http://www.futuremenders.com/

On the Mend, The Formary (2016). *The Formary*. Retrieved from: http://www.theformary.com/

Orange, R. "Waste Not Want Not: Sweden to Give Tax Breaks for Repairs." Guardian News and Media, 19 Sept. 2016, Retrieved March1, 2019: www.theguardian.com/world/2016/sep/19/waste-not-want-not-sweden-tax-breaks-repairs.

Repair Café Foundation. (2012). *Repair Café Foundation*. Retrieved from: http://repaircafe.nl/

REMAKE. (2008). *REMAKE-Eco Design Atelier*. Retrieved from: http://remake.fi/

Repair-a-thon. (2016).Retrieved from: https://www.facebook.com/GingerHeads/?hc_ref=SEARCH

Repair Surgery, The Remakery (2011).*The Remakery*. Retrieved from: https://www.edinburghremakery.org.uk/about-us/

Tom of Holland's Visible Mending Programme. (2017). Retrieved from: https://tomofholland.com/about/

WRAP. (2012). Valuing Our Clothes: the evidence base. *Waste & Resources Action Programme (WRAP)*. Retrieved January 12, 2016: http://www. wrap. org. uk/sites/files/wrap/10.7, 12.

WRAP. (2013). Design for Longevity: Guidance on increasing the active life of clothing. *Waste & Resources Action Programme (WRAP)*. Retrieved September 12, 2019: http://www.wrap.org.uk/sites/files/wrap/Design%20for%20Longevity%20Report_0.pdf

WRAP. (2015). Economic Growth Potential of More Circular Economies. *Waste & Resources Action Programme (WRAP)*.Retrieved October, 10, 2019: http://www.wrap.org.uk/sites/files/wrap/Economic%20growth%20potential%20of_more%20circular%20economies.pdf

APPENDIX A: DETAILS OF INTERVIEWED VERNACULAR MENDERS

Type of mender	Date	ItemMended	Age	Gender	Occupation	Mending group
1. Restorer	January 17, 2017	Ripped jeans	27	Female	-	REMAKE, Helsinki, FI
2. Restorer	January 17, 2017	Waistband on jeans	39	Female	-	REMAKE, Helsinki, FI
3. Restorer	January 17, 2017	Worn out inside seam of jeans	-	Female	Council worker	REMAKE, Helsinki, FI
4. Recruit/re-doer	January 17, 2017	Worn out inside seam of jeans	49	Female	Producer	REMAKE, Helsinki, FI
5. Re-doer/recruit	January 17, 2017	Rip on knee of jeans	30	Female	Technical writer	REMAKE, Helsinki, FI
6. Re-doer	January 17, 2017	Hole in cargos	44	Female	Photographer	REMAKE, Helsinki, FI
7. Restorer	January 17, 2017	Ripped jeans	31	Male	-	REMAKE, Helsinki, FI
8. Reluctant	March 2, 2017	Broken jacket zip	25	Male	Engineering student	Repair-a-thon
9. Re-doer	March 2, 2017	Broken bag strap and hole in jumper	25	Female	-	Repair-a-thon
10. Reluctant/restorer	March 2, 2017	Hole in trousers	-	Female	Engineering student	Repair-a-thon
11. Recruit	March 2, 2017	Hole and worn out inside seam of trousers		Male	Engineering student	Repair-a-thon
12. Recruit/restorer	March 7, 2017	Broken button on coat	-	Male	Journalist	Repair-a-thon
13. Re-doer	March 10, 2017	Hole in jeans	-	Female	House wife	Repair-a-thon
14. Resistant	March 10, 2017	Broken button	-	Female	-	Repair-a-thon
15. Resistant	March 10, 2017	Hole in gloves and trousers	Mid 50s	Female	Self-employed	Repair-a-thon Repair-a-thon

16. Recruit/re-doer	March 13, 2017	Hole in skirt, shirt and broken button on blouse	-	Female	Environment student	Repair-a-thon
17. Re-doer/restorer	March 23, 2017	Hole in raincoat and trousers	37	Male	Researcher	Repair-a-thon
18. Restorer	March 23, 2017	Hole in jacket	26	Male	Student	Repair-a-thon
19. Re-doer/restorer	March 23, 2017	Hole in armpit of jacket	28	Male	Engineer student	Repair-a-thon
20. Recruit/re-doer	March 23, 2017	Hole in skirt and summer jacket	24	Female	Student	Repair-a-thon
21. Recruit	August 10, 2017	Dress	29	Female	Art student	On the Mend, Wellington, NZ
22. Restorer	August 10, 2017	Coat pocket	28	Male	Architect	On the Mend, Wellington, NZ
23. Re-doer	August 10, 2017, September 14, 2017	Hole in jeans	25	Male	Fire sprinkler installer	On the Mend, Wellington, NZ
24. Recruit	August 10, 2017, September 14, 2017	Hole in skirt and wool jersey	25	Female	Social media assistant	On the Mend, Wellington, NZ
25. Re-doer	August 10, 2017, September 14, 2017	Hole in tights	36	Female	Stay at home mother	On the Mend, Wellington, NZ
26. Restorer	August 10, 2017	Frayed jeans	36	Female	University teacher	On the Mend, Wellington, NZ
27. Re-doer	September 14, 2017	Hole in cardigan		Female	Social worker	On the Mend, Wellington, NZ
28. Re-doer/Restorer	September 14, 2017	Hole in socks	37	Female	Teacher	On the Mend, Wellington, NZ
29. Restorer	August 13, 2017	Hole in dress and broken zipper of jacket	23	Female	Mechanical engineer	Gribblehirst Community Hub, Auckland, NZ
30. Re-doer/Restorer	August 13, 2017	Hole in jeans	45	Female	Stay at home mother	Gribblehirst Community Hub, Auckland, NZ
31. Re-doer	August 13, 2017	Hole in cardigan	57	Female	Magazine editor	Gribblehirst Community Hub, Auckland, NZ
32. Reluctant	August 13, 2017	Frayed blouse	35	Female	Industrial design student	Gribblehirst Community Hub, Auckland, NZ

33. Reluctant/Restorer	August 13, 2017	Hole in dressing gown	37	Male	Project manager	Gribblehirst Community Hub, Auckland, NZ
34. Reluctant/Restorer	August 13, 2017	Broken zip of pants, hole in sleeve of jumper	34	Female	Stay at home mother	Gribblehirst Community Hub, Auckland, NZ
35. Re-doer	August 13, 2017	Hole in jumper	64	Female	Computer programmer	Gribblehirst Community Hub, Auckland, NZ
36. Restorer	September 10, 2017	Frayed jumper sleeves	30	Female	Art therapist	Gribblehirst Community Hub, Auckland, NZ
37. Re-doer	September 10, 2017	Hole in shorts	50	Female	-	Gribblehirst Community Hub, Auckland, NZ
38. Re-doer	September 10, 2017	Hole in bag	31	Female	Journalist	Gribblehirst Community Hub, Auckland, NZ
39. Re-doer	September 10, 2017	Hole in cuffs of jumper	45	Female	Stay at home mother	Gribblehirst Community Hub, Auckland, NZ
40. Restorer	September 10, 2017	Hole in blouse	-	Female	Museum worker	Gribblehirst Community Hub, Auckland, NZ
41. Re-doer	September 10, 2017	Frayed shirt collar	30	Male	Barrister	Gribblehirst Community Hub, Auckland, NZ
42. Restorer	September 10, 2017	Hole in slip	60	Female	Retired	Gribblehirst Community Hub, Auckland, NZ
43. Restorer/re-doer	October 8, 2017	Undone jumper hem	-	Female	Entrepreneur	Gribblehirst Community Hub, Auckland, NZ
44. Reluctant	October 8, 2017	Broken zip of jacket	-	Female	Unemployed	Gribblehirst Community Hub, Auckland, NZ
45. Re-doer/restorer	August 26, 2017	Undone skirt seams, undone trouser and dress hem line and blouse slip	21	Female	Sales consultant	Community Recycling Center, Devonport, Auckland, NZ
46. Restorer	August 26, 2017	Undone skirt hem	69	Female	Architect	Community Recycling Center, Devonport, Auckland, NZ
47. Recruit/restorer	August 26, 2017	Hole in shorts, broken skirt zip, missing buttons, hole in woollen jumper	21	Female	Media agent	Community Recycling Center, Devonport, Auckland, NZ
48. Restorer	August 26, 2017	Torn trouser pockets	30	Male	Volunteer at CMRC gardens	Community Recycling Center, Devonport, Auckland, NZ

49. Recruit/re-doer	August 26, 2017	Undone seam of jumper	57	Female	Medical lab assistant	Community Recycling Center, Devonport, Auckland, NZ
50. Reluctant	August 26, 2017	Broken dress string	31	Female	Stay at home mother	Community Recycling Center, Devonport, Auckland, NZ
51. Re-doer/restorer	May 31, 2018	Ripped jeans	50s	Female	Community worker	The Remakery, Edinburgh, UK
52. Re-doer/restorer	May 31, 2018	Broken belt, broken zip and zip button on jeans	31	Female	Post-Doctorate researcher	The Remakery, Edinburgh, UK
53. Re-doer	June 14, 2018	Undone dress hem, frayed jeans	28	Female	Shop assistant	The Remakery, Edinburgh, UK
54. Re-doer	May 31, June 7, June 14, 2018	Jeans	-	Male	Volunteer	The Remakery, Edinburgh, UK
55. Restorer	June 7, 2018	Broken coat button	70s	Female	Retired	The Remakery, Edinburgh, UK
56. Restorer	June 7, June 21, 2018	Hole in jumper	31	Female	Volunteer	The Remakery, Edinburgh, UK
57. Recruit/restorer	June 14, 2018	Frayed jeans	23	Male	Engineer student	The Remakery, Edinburgh, UK

APPENDIX B: DETAILS OF INTERVIEWED ORGANIZERS

Organizer Name	Organizer Type	Location	Interview Date	Website
REMAKE	Social Enterprise	Helsinki, Finland	04/11/2016	https://remake.fi
Repair-a-thon	Craft-activist	Helsinki, Finland	23/02/2017	https://gingerheads.net/repair-a-thon
Korjaussarja	Craft-activist	Helsinki, Finland	15/02/2017	https://korjaussarjakollektiivi.wordpress.com/ota-yhteytta-2/
Gribblehirst Community Hub	Communal-led	Auckland, New Zealand	13/08/2017	https://ghub.nz/
On the Mend, The Formary	Social Enterprise	Wellington, New Zealand	10/08/2017	http://www.theformary.com/
Community Recycling Center, Devonport	Communal-led	Auckland, New Zealand	03/08/2017	http://www.globalactionplanoceania.com/
The Remakery	Social Enterprise	Edinburgh, United Kingdom	30/05/2018	https://www.edinburghremakery.org.uk/about-us/

APPENDIX C: INTERVIEW GUIDE I: ORGANIZER INTERVIEW

First of all I would like to say thank you for your participation in this interview. The goal of this interview is to gain a deeper understanding of your work and discuss with you how your experiences in arranging communal repair events have evolved.

Brief introduction and background

1. Let's start at the beginning. Could you tell me how you got involved in arranging garment mending events?
2. What is the philosophy behind your practice?

Arranging repair events

1. What is the process undertaken when conducting communal repair events?
2. Where do you source the materials needed to mend?
3. Where do you arrange the events?
4. How frequently do you host the events?
5. For how many hours and on what days of the week are the events hosted?
6. Are there any challenges in arranging and hosting the events? How do you address them?
7. How is this setting different from adult education or formal education spaces?

On the menders

1. How many people participate on average in the events?
2. What type of clothing do they bring?
3. Do you have the same group of people come in each time?
4. What role do you play in mending? For example, do you mend for people who come or do you guide them?
5. Do people ever get frustrated when mending? What happens when or if they do?
6. How do menders feel after mending?

Future plans

1. How do you see your practice evolving in the future?
2. What change would you like to see on the policy front regarding communal repair practices?

APPENDIX D: INTERVIEW GUIDE II: PARTICIPANT INTERVIEW[1]

Thank you for agreeing to talk to me and let me audio-record our conversation as you mend. I will make sure that all information discussed today is fully anonymous, such that no name is mentioned in the written drafts of my research.

Brief introduction

1. Have you participated before in mending events such as this one?
2. How did you come to know about the event?
3. Do you mend at home?

On the garment

1. Would you like to tell me a bit about the garment you are mending?
2. How long have you had it?
3. What happened to it?

On the mend

1. How are you mending it?
2. What materials are you using?
3. Is there a name for the method you are using to mend?
4. Have you mended before?
5. How did you learn to mend?
6. Do you often mend with your hands or use the sewing machine or both?
7. Is the experience any different when using your hands vs. the machine?
8. How long does it normally take you to mend?
9. Do you think mending at home is any different from mending at the communal event?

After mending

1. When will you wear the garment?
2. How was your experience today?
3. Did you learn anything new?
4. Do you think you will come to the next event?

1   The interviews were semi-and unstructured due to which various other questions would often get asked as I mended with the participants. Those impromptu questions were not covered by the guide but were audio-recorded and transcribed.

APPENDIX E: SURVEY A

Aalto University
School of Art and Design

Survey: Repair Workshop   Location: Helsinki, Finland

Date:

Dear Participant,

Thank you for agreeing to take part in today's workshop on denim repair. As part of my study I will request you to kindly answer the following questions. Your responses are completely anonymous and will be used for research purposes only. The survey will take 6-7 minutes to complete. I appreciate your time and look forward to receiving your comments. Thank you.

Age: Email:

Occupation: Gender:

Have you participated in garments repair workshops before?

How has your experience been in other workshops?

What do you expect to learn from today's workshop?

What garment did you bring with you today? How many?

If you have previously repaired your garments, kindly fill out the following questions:

- How often do you repair?

- How did you learn to repair and mend clothing?

- How many years have you been repairing?

If you have never repaired garments, please fill out the following questions:

- Why have you not repaired garments before?

- What made you come to today's workshop?

APPENDIX F: SURVEY B

A" **Aalto University**
School of Art and Design

Short follow-up survey

Thank you for agreeing to participate in answering the following questions. Please feel free to answer as candidly as you like. You may write more than the provided space by clicking enter to give you room for a detailed answer. All of the responses will be treated as anonymous. This information will only be used as data to assist in the analysis of my PhD studies at Aalto University, Helsinki. Thank you and I look forward to reading your responses ☺

Name: Age:

City: Occupation:

What did you repair in the repair workshop?

What type of technique did you use?

Did you learn anything new from the repair workshop about mending?

Was the repair a success?

How long did you use the garment since you repaired it?

Have you shopped for a new garment since the time you repaired your garment?

A" **Aalto University**
School of Art and Design

If yes, what was the reason to shop?

If no, what was the reason for not shopping?

Did you mend anything else during this time? (Please list the garments)

How did you mend? (What technique did you use e.g hand stitch, machine, embroidery mending etc)

Did you find it difficult?

Did you learn anything new about garment mending from participating in the workshop?

Have you participated in more repair workshops?

How do you feel about the garment now that you repaired it? Have you kept it or replaced it, why for either?

APPENDIX G: FIELD NOTES EXCERPT

→ Most of the discussion happened at the hand ~~Hand~~ Skill needed. Posture — How it is done can be a major factor in the sewing. Very interesting how you create the atmosphere to mend, sew to repair. Changing the ~~posture~~ ~~atmosphere~~. Making it fun.

→ Role of tools.
→ Role of comfort
→ Knowing others are also at the same stage. → IMP.
→ Patience

→ Trying how to change the thread from the machine. → there being at this.

X. Threading the machine is an imp part of sewing
→ Do test before sewing the work.
→ Knowing how to work with the machine
→ length of the stitches.

→ How to work with the sewing machine?

→ using the pedelles.
→ posture.

ORIGINAL RESEARCH
PUBLICATIONS

Durrani, M. (2018). The Becoming of Repair: Understanding garment mending through a practice theory perspective. In Heuer, M. & Becker-Leifhold, C. (Eds.). Eco-friendly and Fair: Fast Fashion and Consumer Behaviour (pp. 101–111). Routledge.

10 The becoming of repair

Understanding garment mending through a practice theory perspective

Marium Durrani

1. Introduction

In attempting to answer the call for actions aimed at slowing down the 'fastness' of fashion, this chapter initiates discussion on practice theory's pertinence to a theoretical reframing of clothing repair practices. Unlike causal deliberations, whereby user actions are exemplified as individualistic or stand-alone phenomena, practice theory views them as being part of any given practice (Laitala, 2015; Woodward, 2015; Middleton, 2014; Warde, 2005; Schatzki, 1996, 2002; Shove, 2003). Moving away from cognitive perspectives on user actions helps in viewing clothing acquisition and use practices as not resultant of purely market exchange or 'retail environments' (Woodward, 2015). Mind and body, then, are not seen to be disconnected from the social and material world, but are rather embedded within it (Wilhite, 2012; Woodward, 2015). Therefore, practices of acquiring and using 'things' (Reckwitz, 2002) are viewed as being informed through lived experiences (Wilhite, 2012). As noted by Laitala (2015), such a positioning allows for enhanced insights into existing gaps between available knowledge and individual action (or the 'knowledge-to-action' gap) directed towards pro-environmental clothing use lifestyles (Laitala, 2015). This chapter's primary focus is therefore on introducing the efficacy of a practice theory lens in reconceptualising understandings on garment repair as a promising, rather than a bygone alternative practice in apparel use.

2. Challenges of and approaches to garment repair

One of the biggest challenges with the fast fashion sector, within Western societies, is that of the make-take-waste paradigm, whereby cheap buying, nonchalant disposing and frequent replacing results in shortened garment life spans (Klepp & Laitala, 2014). It is estimated that approximately 350,000 tonnes of clothing is sent to landfills yearly in the UK alone (WRAP, 2012). Extending the active life of garments has shown to be crucial in reducing the environmental impact caused by the 'throwaway' culture within fashion (McLaren & McLauchlan, 2015; WRAP, 2012). Possible tactics of life extension include improving garment care through mending and altering, better maintenance through laundering less at lower temperatures and garment leasing or renting by participating in clothing

102   *Marium Durrani*

libraries (Laitala, 2015; Cooper, 2010; Fletcher, 2008) Additionally, purchasing from secondhand shops, reusing and recycling give a second life to garments and the chance to be saved from irrevocable binning (Laitala, 2015). Garment mending is often regarded a laborious chore with little room for play and enjoyment (McLaren & McLauchlan, 2015). Quick and easy replacements have led to a loss of the skills needed to do basic button or seam stitch-ups when needed (Fisher, Cooper, Woodward, Hiller, & Goworek, 2008; Laitala & Boks, 2012). Ill-constructed and inexpensive garments made from poor quality materials have only exacerbated this (McLaren & McLauchlan, 2015). The ease of purchase has also created a common misunderstanding of those practices, such as garment mending, that are vital in ensuring garment longevity (Laitala, 2015).

Academic research on garment repair, although scant, largely recognises lack of skill, time and cost as barriers to its proliferation within a contemporary Western context (Fletcher, 2012; Twigger Holroyd, 2016; McLaren & McLauchlan, 2015; Lapolla & Sanders, 2015; Norum, 2013; Gwilt, 2014). That said, the approaches these studies have proposed in order to address these barriers are marked by their versatility. Norum (2013), for one, turns to formal education in schools as being key to getting users into practices of garment repair. Inculcating sewing and mending skills within the school curriculum while also using online tools such as social media and videos to educate students is proposed as a viable solution to the aforementioned barriers (Norum, 2013, p. 135). However, Gwilt (2014) rightfully points to a gap between the available literature on repair and its application in homes when studying user attitudes to garment repair, revealing a disconnection between conventional ways of knowledge sharing and its actual application. Her take on repair is rooted within design-led product solutions that keep user needs at the centre and enable opportunities for repair to ensue. Modular and repairable clothing are recommended as would-be solutions (Gwilt, 2014, p. 6). Additionally, Gwilt (2014) highlights the economic benefits that can be reaped by designers through inculcating repair services within their business models.

These studies have explored the challenge of altering practices towards repair from two directions. The first direction positions traditional institutionalised knowledge as key to steering users towards repair: it is believed if individuals are taught how to repair they will in fact repair (Norum, 2013). The second argument addresses the situation by bridging the internal (i.e. user perspective, attitudes, preferences and aspirations) with the external (i.e. design-led solutions through modular design) (Gwilt, 2014). In other words, a provision of garments based on design interventions, informed by user experiences, will result in altered actions in the use phase. Sustainable design strategies too have focused on the creation of robust products, paving the way for individuals to use products for much longer (Clark, 2008). What is common to both arguments is a dualism between users and 'the other' (be it educational institutes or design-led products), revealing an underlying linear and causal justification of user actions. Hargreaves (2011) notes what such a line of thinking assumes: by merely altering particular cognitive components, changes will be wrought in user practices, which will cascade across every aspect of the user's life. Consequently, individuals are seen as 'free'

agents who rationally act once they are well informed (through formal education or 'green' clothing label guidelines on how to repair [Dombek-Keith & Loker, 2011 in Middleton, 2015]) or well equipped (through the acquisition of new repairable garments) (Woodward, 2015; Middleton, 2014).

However, simply providing information or making products durable or even repair friendly cannot do the job of ensuring durability or repairability on its own (Wilhite, 2012; Fletcher, 2012). Furthermore, Middleton (2014) highlights the importance of forging ways to increase the repair of "the existing-waste clothing stock to confront the problem of overconsumption" first (Middleton, 2014, p. 267). More importantly, how can such paths be painted into existence? Lapolla and Sanders (2015) address the issue by investigating the role of designers as facilitators in skill and knowledge sharing needed to repair. This is in line with Twigger Holroyd (2013) and McLaren and McLauchlan (2015), who describe a new role for designers. Accordingly, the designer is seen as a 'meta' facilitator engaged in dispensing their knowledge while assisting people to personalise their garments through acts of repair (Twigger Holroyd, 2013). In these studies, users are encouraged to adapt their current garments in creative ways by using visible mending, thus working against traditions of erasing visible repair lines. Moreover, user apprehensions of what Fletcher terms as 'closed' mass-produced garments are challenged via active tinkering and personalising of garments through repair (see Fletcher, 2008, p. 187).

In her project Local Wisdom (2012), Fletcher explores also the impact of social relations in the actualisation of care, use and the resultant and often unexpected durability of garments. As she states, "those products that defy obsolescence do so in informal or unintentional ways, rarely as a result of design planning" alone (2012, p. 229). Combining the role of designers as 'meta' facilitators with that of the social could perhaps help answer the question of how the repair of existing garments could be encouraged. The Department of Repair (Harvey et al., 2015 in McLaren & McLauchlan, 2015), Middleton's 'Sock Exchange' (2010), Otto Von Busch's Community Repair project (2011) and Tom of Holland's Visible Mending Programme (2017) are examples of practitioner-led events that have made attempts in this direction. Through public workshops, these four initiatives provide alternatives to disseminating knowledge, through shared experiences of garment repairing. Collaborative platforms such as these are also seen to be enablers of well-being and leisure (see Twigger Holroyd, 2013, 2016), which in turn could shift users away from impulsive garment buying and disposal practices (Chapman, 2013).

Individuals do not operate in social vacuums (Hargreaves, 2011), nor can change in people's practices be expected to come about through filling up information gaps alone (Burges et al., 1998; Owens, 2000 in Hargreaves, 2011). Accounts on practice theory help to recognise this by bringing focus onto socially shared conventions as the basis of action (Kurz, Gardner, Verplanken, & Abraham, 2015). Through such an approach, focus is placed on what is actually being done rather than said, and behaviour is conceptualised as part of the practice (Woodward, 2015). In doing so, the dynamic nature of the doings or practices is highlighted and possibilities

104   *Marium Durrani*

of change realised as emergent and already "embedded within and occurring as part of social practices" (Kurz et al., 2015, p. 82; Laitala, 2015). Woodward (2014) points to the benefits of the 'non-moralistic' nature of the approach, whereby its application neither focuses on "what people 'should' do, nor assumes practices to be negative or problematic, [which] offers more optimistic possibilities for future developments" (2014, p. 132). Examining "meaningfulness to action" (Warde, 2005) makes practice theory all the more relevant to encouraging prevailing transitions in garment repair practices.

3.   Theories of practice

Practice theories have gained significant popularity in various disciplines, particularly in research on energy (Shove, 2003; Warde, 2005; Wilhite, 2008), food (Evans, 2012) and transport (Spotswood, Chatterton, Tapp, & Williams, 2015), and it is slowly making an entrance within clothing use studies (Laitala, 2015; Woodward, 2015; Gill, Mellick Lopes, & Smith, 2016; Fletcher, 2012). To our knowledge, practice theory has not previously been applied to the study of garment repair, and this chapter provides grounds for doing so. As theories of practice draw attention away from individual moments of decision-making and action, the importance of "social relations, material infrastructures and context" become central to the performance of practices (Hargreaves, 2011, p. 82; Shove, 2003). Practice theories are a way of thinking of how practices emerge, evolve and expire (see Bourdieu, 1977; Giddens, 1984; Schatzki, 1996; Warde, 2005; Shove, 2003). There are several different accounts to the understanding of practices within this field; however, all take practice as the smallest unit of social analysis and point of departure (Schatzki, 1996). Furthermore, focus is placed on the usage of things in the process of "enacting social practices" (Woodward, 2015; Warde, 2005). Therefore, by taking such an approach, the numerous sociomaterial dynamics laden within the practice of garment repair can be better understood.

Reckwitz (2002) defines practice as a "routinized type of behaviour which consists of several elements, interconnected to one another" (2012, p. 249). These elements include various "forms of bodily and/or mental activities" which when in connection with different "things and their use" result in various "forms of understanding, know-how, states of emotion and motivational knowledge" (p. 249). Inspired by Reckwitz's loose description of a practice, Shove, Pantzar, and Watson (2012) deciphered a slightly more exhaustive three-element (meaning-material-competencies) practice theory model. Shove et al. (2012) stress the importance of not only the individual elements, but also their links to one another in the realisation of any practice. These elements are explained below.

3.1.   *Meaning*

Meaning refers to ideas or aspirations that are socially and/or symbolically shared and associated with any given practice at a particular time. Kuijer (2014) notes that by taking meaning as part of the composition of a practice, various motivations,

norms or values are no longer taken as external drivers of change or action but are rather embedded within practices. This allows for a deeper understanding of the associations with and reasons for engaging in a practice, as will be shown through a detailed exploration of garment repair practices in the next section.

3.2. *Materials*

Materials are also known as 'stuff', tangible things used in the process of a practice. Included in this element are both human and non-human physical entities such as tools, infrastructure or the human body. Materials or "stuff is socially shared because the same or similar things are available (although certainly not equally accessible) to groups of people" (Kuijer, 2014, p. 26). This makes a direct link to clothing, for it is widely available and forms part of people's everyday tangible world. Going a little further, we find the material elements of repair include sewing machines, needles, thread, thimbles, scissors, tables for placing the sewing machine and boxes for keeping the threads and needles. These items are also readily available but perhaps are no longer consistently used, an aspect to which we will return later.

3.3. *Competencies*

The mental and bodily know-how needed and ways of feeling are learned as the body engages with the material (Shove et al., 2012; Kuijer, 2014), all of which is situated within the time at which the practice is performed (Shove et al., 2012). Competencies are not only learned, but are also shared and distributed (Kuijer, 2014).

This practice theory model serves as a skeleton framework when addressing stability and identifying points of change in practices through time and space (Shove et al., 2012). Put simply, practices are a form of knowledge created through the repetitive and routinised performance of action in a particular social and cultural space (Wilhite, 2012; Laitala, 2015). The predispositions created through this process develop over time and influence the future performances of the said practice (Wilhite, 2012), with dynamic possibilities of change ever present (Shove et al., 2012). Furthermore, the frequency and consistency with which a practice is repeated and reproduced results in the continual existence or expiration of a practice (Shove, 2012).

Having said that, it is important to note that frequencies and exact reproduction of enactments demanded by practices, too, may vary. Hence, while some practices may require constant and recurring enactments, others may not (Shove, 2012). Shove (2012) and Warde (2005) provide further distinctions and describe practices in two ways: practice-as-entity and practice-as-performance. Practice-as-entity are practices that are well established and are not 'habit demanding' (Shove, 2012). What this means is that certain practices are able to survive without being recurrently performed in the exact same way. These practices require what Shove (2012) calls 'unfaithful' performances and are able to sustain over space and time. "Many persist (as entities) perfectly well for long periods without recurrent enactment.

106 *Marium Durrani*

Others command near constant attention" (Shove, 2012, p. 104). For example, laundering continues to be an established domestic practice (Shove, 2012). Historically clothing was washed far less frequently and in boiling, stove-heated water (Laitala, 2015). With the coming of washing machines, stoves were abandoned for machines. Yet the practice of doing laundry did not die; only the details of its performance (elements of meaning, materiality and competence) along with its timing changed (Shove, 2012).

On the other hand, practice-as-performance is frequently enacted, and some might be more habit-demanding than others. They too may not always be performed in the exact same way each time, especially if they are not 'habit-demanding'. Shove (2012) describes habit-demanding practices as those whose elements of meaning-material-competencies are stable and do not change. Therefore, the performance of a practice is reproduced repeatedly, in exactly the same way, without having the drive to improve (Shove, 2012). For example, showering is a deeply embodied practice performed frequently without any drive for innovation in each performance (Shove, 2012). Another point to remember, for a practice-as-performance, is that habits might break if the practitioners fail to re-enact the practice. However, if frequent and consistent re-enactment is not essential, breaking away from the habit-forming practice does not automatically lead to the demise of the practice (e.g. garment repair, as will be shown later). The practice might be performed less frequently and perhaps even differently each time. As for a practice-as-entity, "losing habit-demanding status" results in the practice being relocated "in the temporal ordering of daily life" (Shove, 2012, p. 107). However, this too does not lead to complete abandonment or disappearance of the practice in question. Additionally, viewing practices from a historical lens helps in acknowledging that actions of use have 'careers' or histories (Shove et al., 2012). Tracing these 'careers' through an exploration of the changing details of performances aided by the resultant (embedded) knowledge of repeated performances impacts the future development or demise of any given practice (Shove, 2012; Wilhite, 2012). This further helps in the identification of established practices, and work towards facilitating those created predispositions can be better instigated.

4. Revisiting repair

Commenting on the subject of Western contemporary garment use practices, Hazel Clark once remarked that "mending has died out" (2008, p. 435). The purpose of this short section is to reveal the complexity of the practice of repair and show its evolution rather than its supposed termination as indicated by Clark. Revisiting the past gives a better picture and reveals deeper underpinnings of how variations in elements of a practice impact the current and future performance of it (Wilhite, 2012; Shove, 2012). Beginning with the eighteenth century, some of the earliest samples of darning are found coming from the Netherlands (Toller, 1980; Clabburn, 1998). At that time in Europe, clothing, as well as other resources, was scarce, and there was widespread illiteracy and economic hardship. The purpose of caring for clothing was deeply entrenched within utilitarian reasons (Richmond,

2013). Thinking in terms of the three-element model (Shove et al., 2012) we see strong links between materials and meaning; however, skill perhaps was not widely accessible. In other words, due to limitation in resources, clothes were highly valued and basic skills of mending were used to get maximum usage out of them. However, there were still many who perhaps did not or could not mend and wore clothing with visible rips due to lack of shared access to these elements.

During the nineteenth century, in the United Kingdom, state funding for women's education began (Cole, 1982). Women began training in sewing and other crafts to gain employment as teachers in missionary schools or as domestic staff. The 'Victorian notion of prescribed gender roles' was the rule of thumb, with women in charge of domestic affairs (Batchelor, 2000). By this time, a reproduction of the practice of repair, with many women enrolling in schools and working as teachers in other parts of the world under the British Empire, became prominent (Cole, 1982). Through the acts of these women, a multiplication of skill, material access and meaning (supporting the domestic economy) resulted in repair entering many homes (Cole, 1982).

At the end of the nineteenth century, industrial development gave way to large-scale production of goods (König, 2013). Factory-made clothing became available in markets. Yet the materials and methods of making did not discard the option of reparability of garments. As König (2013) puts it, despite the availability of factory-made products, "there was still an expectation that all goods would be mended" (König, 2013, p. 573). Domestic mending continued along with the sprouting of several mending services offered by professional seamstresses (König, 2013). Following from this, the Second World War brought with it a time of great economic hardship rampant across Europe (König, 2013). In the US and UK, nationwide 'make do and mend' campaigns were popularised in response to resource shortages (Gwilt, 2014; König, 2013). Detailed descriptions of how to make do with the limited resources at hand through re-fashioning and mending garments were publicised. Being resourceful was seen as a means of supporting the nation and perceived strongly as a patriotic civic duty (König, 2013). The years following the war, particularly the 1950s and '60s, brought development, growth and modernity. "Mending came to be seen as both old-fashioned and unnecessary" (König, 2013, p. 574), with women stepping out of the domestic and into the public domain. A sense of empowerment and breaking free from the clutches of domesticity carried on till the 1970s when women took pride in not knowing how to use a thread and needle (König, 2013; Middleton, 2014). "Consumerism swept in to liberate the domestic female workforce, and the load shifted from mending basket to the shopping basket" (Middleton, 2015, p. 268). Feeding into this was the large-scale production of inexpensive and low-quality clothing. The last 20 years in particular have seen an exponential rise in the acquisition of clothing and a shift in the allocation of time from clothing repairs to shopping for replacements (Middleton, 2015). The aforementioned studies claim that owing to rising income levels, fast fashion cycles and lack of skills training, the practice has all but withered away (König, 2013; McLaren & McLauchlan, 2015; Middleton, 2014; Clark 2008).

108   *Marium Durrani*

However, the story of garment repair does not end here. As exemplified in the recent emergence of grassroots repair communities, mending now serves to provide alternatives to the current fast fashion model of using garments. Organised by repair professionals, these communal spaces encourage joint mending practices aimed at extending the useful life of existing garments. Examples include 'Repair Cafes' which began in the Netherlands (2012) and are now found in several countries; Otto von Busch's Community Repair Project (2011); and Kate Fletcher's Local Wisdom Project (2012). REMAKE (2008), Korjaoussarja (2014) and Repair-a-thon (2016) are three similar examples from Finland. McLaren and McLauchlan (2015), Twigger Holroyd (2016), Gwilt (2014); and König (2013) have also recognised how the cocooned home life of mending is now morphing out into its twenty-first-century social fluttering.

Garment repair over the years has rooted itself as an established entity. Despite having gaps in its performance, mending is a resilient practice with the will to continue the test of time. Reckwitz situates practices to "exist as a pattern which can be filled out by a multitude of single and often unique actions" (2002, p. 250). Garment repair as an entity has, therefore, provided an outline for the practice to be performed in similar or varying ways at varying tempos. This has allowed the practice to be "maintained and transformed" (Shove, 2012, p. 104). The habit-demanding status of garment repair from the 1940s, while lost, has nevertheless allowed the practice to continue on "a more infrequent and erratic basis" (Shove, 2012, p. 106). Mending through time has relocated from a solely domesticated frequented practice of need into 'erratic' enactments of a mobilised social one with a reformed imperative, as evidenced by the altered details of its performance and a repositioning within the 'temporal ordering' of daily life (Shove, 2012). Even if "temporal demands associated with the proper performance of a practice vary widely" (Shove, 2012, p. 104), this does not translate into absolute extinction of the practice, even when performed irregularly. Therefore, to say that mending has died out is likely jumping the gun and may even blindside any effective strides needed to support the existing transitions within garment repair practices.

5.   Conclusion

The purpose of this chapter has been to provide an alternative way of thinking regarding garment repair as a practice. Practice theory was used as a means of approaching mending, to highlight the complex contours of the elements embedded within the practice. Opening discussion on the importance of studying existing mending practices not as 'inherently problematic' but rather as favourable (Woodward, 2015) is regarded central and timely. In other words, attempts at modifying garment use practices should no longer be taken as an external add-on but can be found as embedded within already existing practices (Woodward, 2015). In the same vein, by realising garment repair to be an established practice, with only the details of its performance and timing having changed, the situation might not look as bleak as has been portrayed. Taking lead from this, perhaps policy directives could be better directed at facilitating the efforts of existing garment repair

communities. In order for transformations to take root, encouraging those practices that concur with "social participation and exposure to new ways of doing things" is essential (Wilhite, 2012, p. 92). Acknowledging the becoming of garment repair, instead of delineating it as forgotten, is vital if we are to develop new ways to create and distribute knowledge relevant to facilitating existing alternatives within clothing use practices.

Future work by the author will further build on practice theory and its application in assessing the impacts of 'learning-by-doing', in shared social spaces, on extending garment life spans. This will be done through an empirical investigation of garment repair practices within self-organised repair communities based in Helsinki, Finland.

References

Batchelor, J. (2000). *John Ruskin: No wealth but life* (pp. 206–207). London: Chatto & Windus.

Bourdieu, P. (1977). *Outline of a theory of practice* (Vol. 16, p. 29). Cambridge: Cambridge University Press.

Burgess, J., Harrison, C., & Filius, P. (1998) Environmental communication and the cultural politics of environmental citizenship. *Environment and Planning A*, *30*: 1445–1460.

Chapman, J. (2013). *Repair*. Textile Toolbox online. Retrieved 2 January from www.textiletoolbox.com/research-writing/repair/

Clabburn, P. (1998). Samplers (Princes Risborough: Shire, 1998), p. 8; "A History of Samplers," Victoria and Albert Museum. Retrieved from vam.ac.uk/content/articles/h/a-history-of-samplers

Clark, H. (2008). Slow + fashion: An oxymoron – or a promise for the future . . .? *Fashion Theory*, *12*(4), 427–446. https://doi.org/10.2752/175174108X346922

Cole, M. (1982). *Whitelands College: The history*. London: Whitelands College.

Cooper, T. (Ed.). (2010). *Longer lasting products: Alternatives to the throwaway society*. Surrey: Gower.

Dombek-Keith, K. and Loker, S. (2011). Sustainable clothing care by design. In A. Gwilt & T. Rissanen (Eds.), *Shaping sustainable fashion* (pp. 101–118). London: Earthscan.

Evans, D. (2012). Beyond the throwaway society: Ordinary domestic practice and a sociological approach to household food waste. *Sociology*, *46*(1), 41–56.

Fisher, T., Cooper, T., Woodward, S., Hiller, A., & Goworek, H. (2008). *Public understanding of sustainable clothing: A report to the Department for Environment Food and Rural Affairs*. London: Defra.

Fletcher, K. (2008). *Sustainable fashion & textiles: Design journeys*. London: Earthscan.

Fletcher, K. (2012). Durability, fashion, sustainability: The processes and practices of use. *Fashion Practice Journal*, *4*(2), 221–238. https://doi.org/10.2752/175693812X13403765252389

Giddens, A. (1984). *The constitution of society*. Cambridge: Polity Press.

Gill, A., Mellick Lopes, A., & Smith, H. (2016). Practicing sustainability: illuminating 'use' in wearing clothes. *Cultural Studies Review (CSR)*, *22*(4914), 32–58. https://doi.org/10.5130/csr.v22i1.4914

Gwilt, A. (2014). What prevents people repairing clothes? An investigation into community-based approaches to sustainable product service systems for clothing repair. *Making Futures Journal*, *3*.

110 *Marium Durrani*

Hargreaves, T. (2011). Practice-ing behaviour change: Applying social practice theory to pro-environmental behaviour change. *Journal of Consumer Culture*, *11*(1), 79–99.

Harvey, B., Tsutsumi, M., Hurley, M. and Richmond, K. (2015). The Department of Repair. Retrieved from https://thedepartmentofrepair.wordpress.com/2015

Klepp, I. G., & Laitala, K. (2014). Consumption studies: The force of the ordinary. In K. Fletcher & M. Tham, *Routledge handbook of sustainability and fashion* (pp. 121–130). Abingdon: Routledge.

König, A. (2013). A stitch in time: Changing cultural constructions of craft and mending. *Culture Unbound: Journal of Current Cultural Research*, *5*(4), 569–585.

Kuijer, L. (2014). *Implications of social practice theory for sustainable design*. PhD thesis, Delft University of Technology.

Kurz, T., Gardner, B., Verplanken, B., & Abraham, C. (2015). Habitual behaviors or patterns of practice? Explaining and changing repetitive climate-relevant actions. *Wiley Interdisciplinary Reviews: Climate Change*, *6*(1), 113–128.

Laitala, K. (2015). *Applicability of social practice theory for sustainable clothing consumption research*. Paper presented at the Global Cleaner Production and Sustainable Consumption Conference, Sitges, Spain.

Laitala, K., & Boks, C. (2012). Sustainable clothing design: Use matters. *Journal of Design Research*, *10*(1/2), 121–139.

Lapolla, K., & Sanders, E.B.N. (2015). Using cocreation to engage everyday creativity in reusing and repairing apparel. *Clothing and Textiles Research Journal*, *33*(3), 183–198.

McLaren, A., & McLauchlan, S. (2015). Crafting sustainable repairs: Practice-based approaches to extending the life of clothes. *PLATE Conference*, 17–19 June 2015, Nottingham Trent University, available online at http://irep.ntu.ac.uk/7526/1/220771_PubSub2645_McLaren.pdf

Middleton, J. (2010). *Sock Exchange, Cork 2010*. Retrieved from www.futuremenders.com/

Middleton, J. (2014). Mending. In K. Fletcher & M. Tham, *Routledge handbook of sustainability and fashion* (pp. 262–274). Abingdon: Routledge.

Norum, P. S. (2013). Examination of apparel maintenance skills and practices: Implications for sustainable clothing consumption. *Family and Consumer Sciences Research Journal*, *42*(2), 124–137.

Owens, S. (2000). Engaging the public: Information and deliberation in environmental policy. *Environment and Planning A*, *32*: 1141–1148.

Reckwitz, A. (2002). Toward a theory of social practices: A development in culturalist theorizing. *European Journal of Social Theory*, *5*(2), 243–263. Print.

Richmond, V. (2013). *Clothing the poor in nineteenth-century England* (Ch. 4). Cambridge: Cambridge University Press.

Schatzki, T. R. (1996). *Social practices: A Wittgensteinian approach to human activity and the social*. Cambridge: Cambridge University Press.

Schatzki, T. R. (2002). *The site of the social: A philosophical account of the constitution of social life and change*. State College: Pennsylvania State University Press.

Shove, E. (2003). *Comfort, cleanliness and convenience: The social organization of normality*. Oxford: Berg.

Shove, E. (2012). Habits and their creatures. *Habits of Consumption*, *12*, 100–113.

Shove, E., Pantzar, M., & Watson, M. (2012). *The dynamics of social practice: Everyday life and how it changes*. Los Angeles, CA: Sage.

Spotswood, F., Chatterton, T., Tapp, A., & Williams, D. (2015). Analysing cycling as a social practice: An empirical grounding for behaviour change. *Transportation Research Part F: Traffic Psychology and Behaviour*, *29*, 22–33.

The becoming of repair   111

Toller, J. (1980). *British samplers: A concise history* (p. 13). Sussex: Phillimore.

Twigger Holroyd, A. (2013). Rethinking the designer's role: The challenge of unfinished knitwear design. In H. Britt, S. Wade, & K. Walton (Eds.), *Futurescan2: Collective voices* (pp. 162–171). Sheffield: Hallam University.

Twigger Holroyd, A. (2016). Perceptions and practices of dress-related leisure: Shopping, sorting, making and mending. *Annals of Leisure Research*, *19*(3), 275–293.

Von Busch, O. (2011). Community repair: Challenging a community of non-commitment. In D. Williams & O. Von Busch (Eds.), *Community repair: Strategic social skill mobilization for sustainable fashion* (pp. 7–9). University of the Arts London, Centre for Sustainable Fashion and the Knowledge Foundation. Retrieved from www.kulturservern.se/wronsov/selfpassage/CoRep/CommunityRepair_cat-w.pdf

Warde, A. (2005). Consumption and theories of practice. *Journal of Consumer Culture*, *5*(2), 131–153.

Wilhite, H. (2008). *Consumption and the transformation of everyday life: A view from South India*. Basingstoke: Palgrave Macmillan.

Wilhite, H. (2012). The energy dilemma. In K. Bjørkdahl & K. B. Nielsen, *Development and environment: Practices, theories, policies* (pp. 81–97). Oslo: Akademika.

Woodward, S. (2014). Accidentally sustainable? Ethnographic approaches to clothing practices. In K. Fletcher & M. Tham, *Routledge handbook of sustainability and fashion* (pp. 131–138). Abingdon: Routledge.

WRAP. (2012). *Valuing our clothes: The evidence base*. A Technical Report for WRAP: London. Retrieved from www.wrap.org.uk/sites/files/wrap/10.7.12%20VOC-%20FINAL.pdf

Websites

Korjaoussarja. (2014). Retrieved from https://korjaussarjakollektiivi.wordpress.com/

Local Wisdom Project. (2012). Retrieved from www.localwisdom.info/

REMAKE. (2008). Retrieved from http://remake.fi/

Repair-a-thon. (2016). Retrieved from www.facebook.com/GingerHeads/?hc_ref=SEARCH

Repair Cafes. (2012). Retrieved from http://repaircafe.nl/

Tom of Holland's Visible Mending Programme. (2017). Retrieved from https://tomofholland.com/about/

Durrani, M. (2018). Designers
by Any Other Name: Exploring
the sociomaterial practices of
vernacular garment menders.
Design Research Society
International Conference: Catalyst.
DRS International Conference
Series, Volume 4, 1731–1746.

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Designers by any other name: exploring the sociomaterial practices of vernacular garment menders

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Studies around the cultures of design indicate a mutually constitutive relationship designers share with materials when in practice. However, professional designers are not the only ones experiencing proximate relations with materials. With the recent emergence of community-based repair workshops, non-professional designer practices of fixing things like garments reveal sites of active material tinkering possibly aiding transitions in current clothing disposal patterns. Using qualitative research methods and a sociomaterial theoretical lens, this paper takes the mending activities of non-professional menders in communal repair workshops in the city of Helsinki, Finland, as its point of departure. The study identifies these menders as vernacular menders and explores their dynamic practices to reveal the situated, embodied, routinized yet creative process of mending. The created outputs by the vernacular menders result in what is termed informal design and point towards extending mainstream conceptualizations of design and creativity. Taking such a view could help to sketch out new roles for fashion designers in pursuing endeavours to better support mending whilst bringing in positive environmental change.

Keywords: sociomaterial; vernacular menders; informal design; creativity

1. Introduction

The work of designers is often described as a practice involved in giving 'form' to materials (Alexander, 1971), solving problems in unique ways (Cross, 2006) or more recently creating new materials (Myers, 2012). Designers' ways of doing and knowing have been studied at length and theorized in various ways. One stream of current studies has been around the cultures of design that take into account the embodied, situated and material aspects of the work of designers (Geertz, 1973; Hendersen, 1999 in Kimbell, 2011). Work coming out of this field acknowledges that designers are not detached from the world they work in or on (Kimbell, 2011) and points to a close, mutually constitutive relationship designers share with materials when in practice (Shove, Watson & Ingram, 2007). However, professional designers are not alone in experiencing proximate relations with

materials. In fact, designed artefacts are often not even used in ways anticipated by designers; they rather get constantly reconstituted when in use (Shove et al., 2007). One site where such re-configurations take shape, lies in the world of everyday repairing of numerous daily artefacts (Graham & Thrift, 2007; Maestri & Wakkary, 2011). Attending to these breakdowns not only results in an on-going recreation of relations between people and things, but the activities are also hotbeds for unleashing everyday "creativity, invention, imagination, and artfulness", as well as design (Jackson, 2014:226, Maestri et al., 2011: 81). Moreover, with the recent emergence of community-based repair workshops, non-professional designer practices of fixing things, such as garments, are being recognized as possible platforms for aiding transitions in current clothing disposal patterns (Twigger, 2013; Chapman, 2013; McLaren & McLauchlan, 2015).

This study will take a closer look at what goes on when non-professional designers come together to mend their garments in these workshops. Furthermore, by way of a generative analysis, the embodied, situated and sociomaterial dependant aspects of mending will be explored. Creative and collective ways through which these dynamic menders extend garment life will reveal sites of informal design outcomes resultant from their mending practices. Thus, through an exploration of the doings (body), sayings (discourse) and materiality (artefacts) of mending practices, this article aims to do the following:

- emphasize the importance of understanding the inseparability of the social from the material, and vice versa, when exploring practices that may assist in driving positive socio-environmental change (Drazin & Küchler, 2015);
- point towards the blurring of designer-non-designer dualities that emerge in and from active material tinkering of non-professional mending practices; and
- articulate implications for endeavours aimed at encouraging garment longevity practices.

The paper will begin by identifying *who* these everyday menders are, illustrate *how* they mend and discuss what happens when they *do* mend.

2. Theoretical framing

Let us begin the discussion first by gaining an understanding of sociomaterial practices. Rooted in relational onto-epistemology, a sociomaterial theoretical framing works towards overcoming dualisms between mind-matter/body, social-material, nature-culture, human-nonhuman in developing an understanding of the making of the world (see Haraway, 1991; Barad, 2003, 2007). Put simply, a sociomaterial practice theoretical lens takes an egalitarian view on the agency of humans and non-humans when considering enactments of practices. What this means is that ways of doing and knowing are not to be separated from the material or the social elements in the enactments of any practice (Gherardi, 2017). Rather, body, material and discourses are all "expressions of the same sociomaterial world" (Gherardi, 2017: 42). Knowing bodies and the things of knowledge do not exist as *a priori* entities merely coming into contact to mediate practice. Instead they are co-constituted through an enactment of practices entangled in the social and the material simultaneously. Therefore, when denoting this mutual constitution of the social with the material in the carrying out of practices, 'intraction' replaces interaction and becomes the preferred term of use (Barad, 2007: 37). Giving importance to this materiality aspect within practices also exists in the literature coming out of the "practice turn" or the return to practices (Schatzki, 2001; Reckwitz, 2002). A unified definition of practice does not exist, but for this paper I will take Reckwitz's definition to further our understanding of sociomaterial practices.

According to Reckwitz (2002) a practice is a "routinized type of behaviour which consists of several elements, interconnected to one another: forms of bodily and/or mental activities, 'things' and their use, a background knowledge in the form of understanding, know-how, states of emotion and motivational knowledge" (p. 249). Conceptualizing any practice in such a way points to a number of key aspects. Firstly, neat distinctions between thinking and doing are avoided and ways of knowing are taken as a hybrid of the mental with physical/bodily activities (Shove, Pantzar & Watson, 2012),

being carried out in a world not separated but 'entangled' in the social and material (Scott & Orlikoswski, 2008). Knowledge is seen, not as being sourced from the mind alone, but as embodied, experienced and distributed among humans and non-humans or nature and culture, social and material (Gherardi, 2017). As Schatzki argues, "knowledge is no longer even the property of individuals, but instead a feature of groups, together with their material setups" (2001: 12). In other words, knowledge is situated and taken as an on-going accomplishment manifested in the "performance" of a practice (see Reckwitz, 2002 for a detailed understanding of practice-as-performance and practice-as-entity). Secondly, through the situated intractions of things together with humans, understandings on ways of knowing, doing and saying are co-constituted, enacted in current performances and become enablers of future practice (Gherardi, 2017). This leads to the third key aspect whereby the unit of analysis moves from individuals and onto the enacted processes in a routinized, embodied and situated manner (Reckwitz, 2002).

We therefore understand everyday practices as not separate from the materiality of artefacts nor exclusive resultants of social structures (Kimbell, 2012). Rather agency between humans/non-humans is distributed and seen as entangled within a sociomaterial world when in the process of enacting everyday practices. The paper will now provide empirics to further anchor our understanding of mending as a reflective site.

3. Research design

This paper is based on empirical data collected over a seven-month period (November 2016-June 2017) of field work in 8 communal mending workshops in the city of Helsinki, Finland. The data consists of 16 semi-structured interviews with individual participants, one group discussion with 4 participants and 3 expert interviews with mending workshop organizers. The data forms part of the author's larger on-going doctoral research on mending practices. A three-level approach was implemented for the purpose of gathering data (Table 1).

Table 1. Three-level data collection method

Levels	Objective	Data Collection Method	Data Recording Tools
One	Identify mending workshops Attend mending workshops	Web search, Snowball Field observation	Field notes
Two	Make contact and interview organizers	In-depth semi-structured interviews	Transcription of audio recording
Three	Interview participants Participate in mending workshops	Short surveys In-depth semi-structured interviews Group discussion Participant observation	Transcription of audio recording Field notes

Level one included identifying organizers of the mending workshops in Helsinki. Three organizers were selected, two (REMAKE and Korjaussarja) using online research and one (Repair-a-thon) through snowballing (Flick, 2014), whereby one of the organizers introduced me to the third organizer. I then decided to take part in the mending events with the aim of gaining access and permission to conduct my study at their respective workshops. By giving verbal consent, the organizers acted as the gatekeepers, giving access to not only partake in their own workshops but also to make contact with other organizers in the community of menders. The location of each workshop varied depending on who was organizing and where the organizers could gain access for conducting the workshop. All the mending workshops were free of charge and provided participants fee-free access to machines and other haberdashery needed to mend. The initial research, at this level, was limited to observing the activities in the workshops without making direct contact with the participants. These observations from an 'outsider's' perspective documented the structure of

conducting the workshops (Nicolini, 2009). Initial observations formed part of the field notes used in later analysis.

Following from this, in-depth semi-structured interviews were conducted with the organizers to identify motivations behind their activities. Each of the three interviews lasted from 1 hour to 1 hour 40 minutes. The full interview transcripts were analyzed, highlighting the perceptions of the organizers of their own practice and that of the participants as a group. This served as the grounds for level three of the data collection, where the motive was to zoom in and get an 'insider' view by tapping into the participants' views on mending practices, motivations for joining the workshops, experiences while mending and observing the doings of the participants (Nicolini, 2009). This was done through short pre-workshop surveys, in-depth semi-structured interviews and one group discussion during the workshop with the participants. The interviews and discussion each lasted from 30 minutes to 1 hour. All interviews were done only after attaining consent from the participants to be audio-recorded and used as data for the purposes of the current study. Additionally, observing the participants as they mended and self-reflexive activities by mending my own garments at the workshops also formed part of the field notes. A triangulation method was then used to analyse the data which included transcriptions of interviews, group discussion, short surveys and field notes (Flick, 2014).

Figure 1 Vernacular menders seen mending at a mending workshop held at an atelier (left) and at a café (right) in Helsinki. Source: author.

The consolidated data was coded using open coding. Open coding was directed towards forming descriptive categories and sub-categories when addressing the questions "who are the menders?", "how do they mend?" and "what happens when they mend?". The data revealed two major groups of menders: the organizers and the participants. As all three organizers held professional degrees in the field of fashion and/or textile design, they were grouped together as the "Professional Menders". Within this category, sub-categories were created based on the varying motivations of each organizer as summarized in Table 2. The second group was categorized "Vernacular Menders" and consisted of the non-professional menders participating in the workshops. The focus of this paper is on the knowing, doings and saying of the mending practices of vernacular menders.

Table 2   Types of Professional Menders and their motivations.

Professional Menders (Organizers)	Motivation (Professional Menders)
The Activist	Waste minimization
The Entrepreneur	Social enterprise
The Craft Teacher	Skill sharing

The term 'vernacular' is used to refer to the everyday, mundane, ordinary mending as sites of creativity and to reveal its importance for research within design (Hawkins, 2017). Using a sociomaterial theoretical lens to study mending practices of vernacular menders revealed the different types of menders. These sub-categories emerged because of the variations observed in the ways of knowing, saying and doing mending. The vernacular menders were then categorized as the restorer, the re-doer, the recruit and the reluctant.
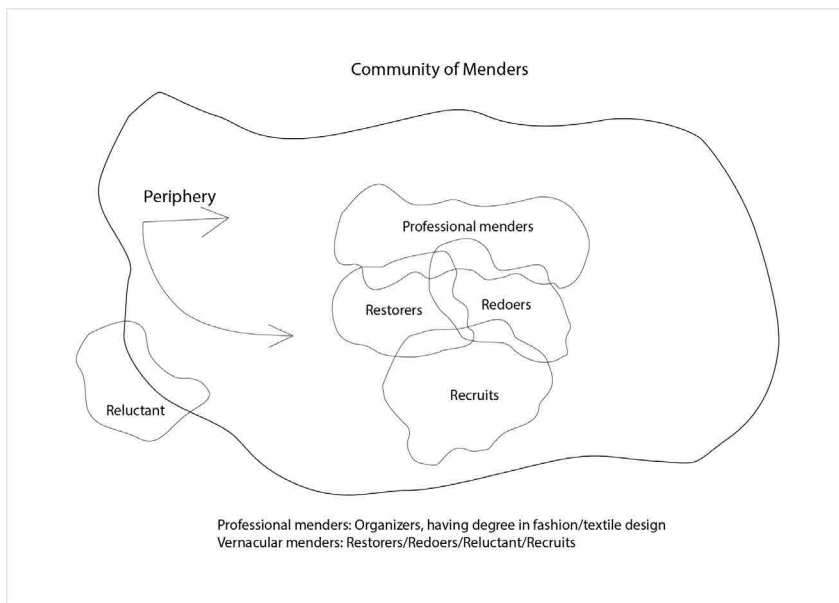

Figure 2 Community of menders: Professional and Vernacular menders' positions in participation. Source: author, adapted from Lave and Wenger's (1998) "Relations of participation and non-participation" diagram (p.167).

These categories are dynamic and not taken to be static, as vernacular menders did move in between them. What is important, however, is to highlight the distributive nature of mending as seen being performed by different bodies all engaged in routinized yet dynamic ways of doing mending (Reckwitz, 2002). This is a point to which I return in later sections ('Results', 'Emergent informal design' and 'Everyday creativities'). Additionally, the social nature of practices is revealed and points to what Lave and Wenger (1998) term as 'community of practices', whereby different bodies with varying knowledge all form part of the community by engaging in the same practice spread across space and time. Moreover, working consistently, whilst entangled with the materials, practitioners learn their way into a practice and move from 'peripheral' corners into becoming fully participating practitioners (Lave & Wenger, 1998). Therefore, as the following section will reveal, these sub-categories hold great relevance for the present study.

4. Results

4.1. Distributive mending

The varying profiles of menders described here illustrate the distributive nature of mending. This section describes the variations within the performances of mending as acted out by different bodies in the context of communal mending workshops. The four accounts illustrate the situated, yet at times overlapping, ways in which mending is carried out and knowledge is distributed (see Figure 2). The discussion will then turn to the embodied nature of the practice and explore ways of knowing as embodied entanglements within the sociomaterial setting when enacting practices of mending.

4.1.1. The restorer

> *I don't want to mend things if they don't look professional, {…} I think I would like it (the garment) to look like it was meant to look originally.*

> *I'm very precise, so I know when something is homemade and I prefer the type of mending that looks factory-made and quite exact.*

> *I want to have it (pair of pants) fixed in a way that doesn't show the damage. Mostly, I like to use the sewing machine to fix garments, I will put patches of the same colour and fabric of that particular garment {…}. Once I repaired clothes and it became very dramatic and then I didn't use it anymore. So the thing is to make it invisible.*

Professional, original, precise, factory-made, invisible, all point to the restorative qualities of mending. Turning back the clock on garments to erase any or all signs of breakdown is perhaps the most obvious light in which mending is perceived and expected to be performed (Spelman, 2002). Restoring garments to be neat, not grungy, and as they should be, is woven well into this practice.

Figure 3 Restorer digging through scrap denim (left) to find the exact colour so as to add patches inside (middle) the fraying crotch area to strengthen the jeans without showing the mend (right). Source: author.

However, restorers working within these peripheries are well versed in the language of materials and are anything but ordinary. They may not possess professional degrees in the field of garment mending or design, but their knowledge is on par with that of professionals and forms a vital part in the community of menders. Their reason for coming to the workshops is mainly to get a little advice on their mends while sharing their expertise with others. Restorers seek comfort in the company of other menders and avoid isolated moments of mending. In the process of pristinely mending garments, restorers often end up invisibly adding features into the garment. In this manner, restorers might overlap with the works of re-doers. The next section will this explain further.

4.1.2. The re-doer

There is a little hole (on the jacket). I will cover it up, and there is a saying, if you want to cover it, [you] should make it to be bigger and show so it looks part of it. I will use embroidery mending. It's very easy, you don't have to be the best embroiderer. I like the idea of doing something new, I have done this kind of work on t-shirts and if it doesn't succeed I do more embroidery over it{…}. I am more interested in experiments, and I do this a little bit {…}. I think for me I am always looking forward to the result, I think it's fun.

Figure 4 Re-doer using a visible embroidery mend to cover holes on the sleeve of the jacket. Source: author.

The re-doer is an experimenter and a risk taker. Re-doers bring new features onto the garments and re-configure the original design of the garment. However, such mends do not always have to be visible for, as seen, restorers too can re-do invisibly. This reveals an overlap and the fluid nature of the said categories. Additionally, the re-doer well recognizes the variety and differences in the demands of each mending job (Spelman, 2002) and is motivated by a strong desire to learn and improve their technique. Therefore, the range of knowledge oscillates from basic to advanced in this group. Moreover, re-doers normally do not have all the needed equipment at home and participate in the workshop to gain access to materials. Many times they will be seen making-do with what is available and improvise with those limited materials as they go along with their mends. This can be seen in the following excerpt:

I repaired it (pullover) using a very visible repair and many of the repairs were even on it when I bought it{…}. I find that it gives something special and something more to the garment, I like to do visible mending{…}. I have made some very funny things with visible mending. I also have these woollen trousers and then there were a lot of holes {…} and I didn't have the right colour for these trousers because they were deep blue and I used pink to repair it.

Where a restorer might spend hours searching for the perfect coloured thread, a re-doer is more spontaneous and not afraid to work with the odds. Similarly while a restorer might hide the additions made to the garment the re-doer makes it a point to show and highlight them. Both, however, when in the process of mending the garments, learn from the original design of the garment and enhance it. This is an aspect to which I will return (see 'Everyday creativities' and 'Emergent informal design').

4.1.3. The recruit

I brought my trousers that I stopped wearing because they were ripped here (pointing to the crotch area) so I want to fix them and I don't know how to operate the sewing machine, and I thought the machine will be the best for this because it is what you call a double stitch. And I learned how to operate with a needle in primary school but I wasn't very good so I thought I will come here and learn how to use a machine.

The recruit is a first-timer and has little to no experience with repairing, possessing very basic knowledge. The recruits want to learn how to put their clothing back into use. They are open to trying out various techniques of (invisible and visible) mending and are keen to learn. Some might be shy to use the sewing machine at first and are normally found around the hand stitching tables.

Figure 5 Recruit seen consulting the professional mender as the two work through the mend with the materials. Source: author.

Taking inspiration from their garments, professional menders and other vernacular menders, recruits collaboratively work on their mends as seen in the following narrative:

I was nervous about using the machine because I'm not that used to sewing, but we had good tutors and were helping and being positive. And I was hoping I could replace this section of the jeans and Piia (Professional mender, REMAKE) suggested I could take this part straight from the other jeans, and I haven't even thought about that before and then I was like, aha, let's do this, so I am really pleased with the outcome{…}. Now I will use my skills afterwards and also show some other people the same technique, it has been a very useful and productive evening!

4.1.4. The reluctant

My son's jeans got ripped in the crotch and it was a big hole and he brought it to me, but I did not know what to do with them, and they are in a bag in the summer cottage of broken clothes.

If it's just socks then I will throw it away but if I like it I ask someone to fix it for me. I have used a machine at school and haven't done it for it ages. I probably should but I ask my friend {… }. I think to start is the hardest part. I would probably throw [it] away if my dress breaks and I don't have any help.

The above excerpts are two women speaking, one who had brought in a Burberry jacket with a broken button in need of fixing while the other brought trousers owned by her mother with holes in them. The two women, although reluctant to use the sewing machine or their hands to mend, did not hesitate from explaining how they wanted the garment to be fixed. Both wanted the garments to be restored without the work being visible and in this way sharing some of the qualities with the restorers. Reluctants, out of fear of ruining the garment, do not give a go at fixing it. However, they want to consult and tell the professional mender what to do in a very particular manner. They select the materials themself and know what and how they want it to be. In this way, they find themselves half-way between being outsiders and peripheral members of the community of menders as seen in Figure 2.

Figure 6 Professional mender seen mending the jacket of a reluctant vernacular mender as per his requirement. Source: author.

Additionally, some even show willingness to try mending themselves after seeing how it is done in the workshop. They learn in terms of seeing but do not "do" at this point, yet are inspired to try. This is seen in the following conversation:

> *Reluctant: came with my friend randomly. That's it. And I found out that I could fix something that was broken. Both the zipper and the bottom button of my jacket were broken {..}, today we fixed the zipper, it's a little bit wonky but it works.*

> *MD: What do you normally do when garments rip or buttons break?*

> *Reluctant: Well, if it would be a button like this I would find someone to do it for me. But now I know how to fix this (button) one and she (professional mender) showed me and if the same problem happens again I will try to fix it myself.*

5. Discussion of findings

This section will now explore three key themes that emerged from the analysis of the vernacular menders' various practices in the communal workshops.

5.1. Embodied knowledge

> *I prefer using my hands to repair. I feel I have some kind of **connection with the garment** and it's somehow more under my control when it is in my hand. (Restorer)*

> *It (mending)[is] relaxing and takes **my mind off things** and lets me unwind and **I wasn't thinking about anything**. (Re-doer)*

Every time someone began mending a garment in the workshops, be it a professional mender or a vernacular, it would always begin with touching the fabric and feeling it between the thumb and fingers. The broken area would then be felt and slightly scratched with a fingernail whilst the fabric

was turned inside out and back in again. The direction of the fibres would be felt and the fingers were seen grazing in the direction of each yarn looking intently at the garment construction. The hands were in constant use and in motion, feeling, touching and assessing the material properties of the garments prior to repair. Once the issue was diagnosed the use of hands would not stop, for as the menders began mending, a conversation in motion was witnessed between the mender and the matter – without being able to determine who was telling whom what to do next. From using the mouth to soften the thread just enough to accurately thread the needle to keeping the body in particular postures while working through the mend, the body's reliance on and inseparability from the tactile materiality of the work became effortlessly prominent. Not only was the sense of touch visible, but the sense of sight and feel were ever present too.

Figure 7 Using hands whilst encircled in a group of varying vernacular menders collaboratively working with the materials on their mends. Source: author.

One revealing example was when a man brought a woollen coat in need of a button stitch-up to one of the workshop events. As he was not happy with the way the jacket closed when it was first fixed, he returned to the workshop a second time. The troublesome button was placed together in consultation with the professional mender in various spots several times. Fitting and checking in the mirror, the two bodies worked in tandem with the sewing pins pinned in the coat to find the most aesthetically pleasing spot for it. They used their hands to fix and feel the fit of the coat before finalizing on the best spot for it to be sewn on. These observations point to a reliance on a kind of knowledge that can be seen as not purely coming from an intellectually charged cognitive process, rather an embodied one (Strati, 2007). Additionally, it seems to be entangled in the social (consultations with the professional) along with the material qualities of the coat and the senses and sensibility of the body. Strati (2007) terms this type of knowing as 'sensible knowledge', where the intractions of the hands with matter being worked with provide the basis for the enactments of on-going and future practices. The two are entangled and the knowledge derived is both in the action and in the sensing. According to Gherardi (2012) material engagements such as these enable the tactile and visual senses of the body and inform the performance of practices.

In other words, when using a sociomaterial lens to study practices, knowledge and ways of knowing are not constricted to purely the mind. In fact, an egalitarian approach is taken to the study of practices whereby dualities between mind/body, human/non-human, matter/ideas, are blurred. Knowledge is then taken to be embodied and a reliance on sensible knowledge is seen in the enactment of practices, as exemplified in the above examples. With this comes also the distributive nature of knowledge amongst various bodies (Henke, 2000). Ways of knowing are not confined to just one but various bodies and things. Ergo practices are seen as distributive and ways of knowing

are performed and enacted in varying degrees. When they are performed, different bodies enact them in different ways.

Figure 8 Vernacular menders uses hands to scratch, sense, feel and converse with the materials when trying to understand the cause of the garment's breakdown. Source: author.

This distributive nature of practices is then seen in the bodies of the restorer, re-doer, recruit and reluctant vernacular menders, along with the professional menders, all of whom form part of the community of menders. Using a sociomaterial lens to understand the process of mending reveals that knowledge of and knowing how to mend is an embodied and distributive phenomenon (Gherardi, 2016). It brings to surface the importance of and reliance on materiality and bodily movements guided through what is called the "intelligence of the hands" in the enactment of these practices (Strati, 2007: 68). This implies that the process of thinking is not sourced purely in isolated cognitive exercises. Rather it comes from the co-constitution of various minds/bodies entangled in sociomaterial surroundings. Taking such a view on everyday practices also helps in recognizing subtle ingenuities that abound in the on-going shaping of artefacts. The next section will reveal how, through the sociomaterially immersed practices of vernacular menders, informal design outcomes are birthed.

5.2. Emergent informal design

> I've been meaning to fix these jeans since I fell down two weeks ago and tore the knee {…} so it was T-shaped the way it had torn{…}, this is the burros stitching {…}, I drew it (the pattern) on a paper. And then I made the pattern on the jeans. And decided to sort of cut a small piece out and make a square and twist the sides inside. First I stitched the square so it is stuck to the patch behind, then I made the crosses. Then I made them (the crosses) by hand {…}, then I thought I don't want to make it like a square so I made it a bit uneven from the grid (Re-doer).

The process of mending as it unfolded whilst the vernacular menders mended, be it a re-doer or a reluctant, always began with the identification of a problem. In this instance, the problem took form in the breakdown of a garment due to for example a broken button or a ripped trouser. Once the problem was defined the next step entailed analysis of the broken material and the self (embodied knowledge), followed by an examination of the available material and if needed the surrounding knowledge (consulting other menders). Analysis of material would occur almost simultaneously in action and conversation among and between all menders and materials. The menders would not always state what the next course of action would be but through the enactments of their practices the next steps emerged and became visible. This normally came in the shape of menders drawing ideas out on pieces of paper, chalking on patterns they wished to embroider on their mend or placing patches of scrap fabric to mask holes in the garments. This was followed by an experimental phase whereby different threads, buttons, patches and other haberdasheries were temporarily used to get a visual before selecting the final ones leading into the visibly or invisibly mended end results.
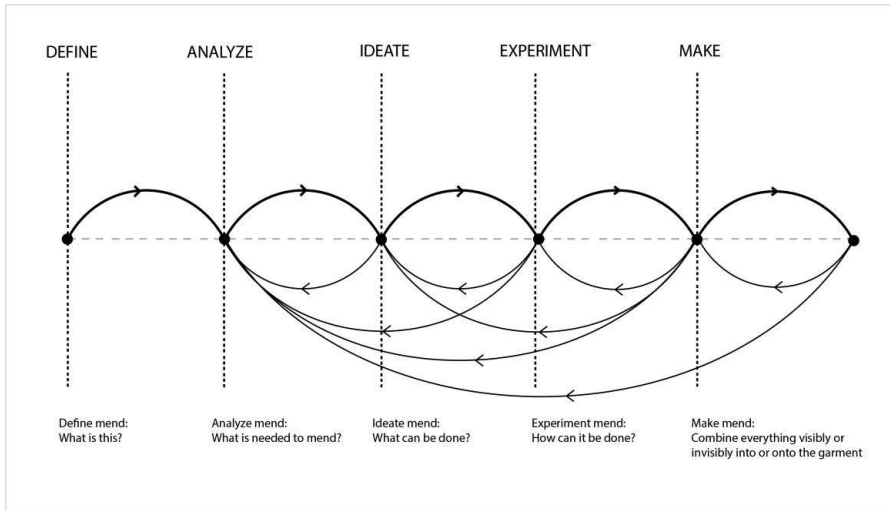
Figure 9 Process of mending. Source: author.

However, this process is not to be taken as a linear one. Quite often, menders would break away from one phase and go back to an earlier stage of the mend if their envisioned experiments failed to reflect through till the making of the mends (see Figure 9). Thus, there is a continuously re-mouldable, dynamic and looped nature of mending, as illustrated in the following quote:

> *At first I used pink yarn because I thought it will look cool, but as I did it then it was just a ridiculous idea {…} so it was a mixture of making a pattern but also not to make it show too much or make it special in a way. Because these are outdoor pants and I thought it will be a nice detail but also not show from far away, that's why I changed the idea of using the bright coloured yarn. Because I wanted to go wild but then I'm very minimalistic, it's better to go for the classic style even in this (cargo pants). (Re-doer)*

Within these on-going enactments, the vernacular menders collectively used mind/body, social/material, human/non-human elements whilst orchestrating paths towards sound solutions. In their performances moments of improvisational ingenuity were often found. This could take the shape of uniquely visible embroidery mending or invisible mock safety stitches added onto or into the garments, improving garment performativity or aestheticism. To the naked eye perhaps something like an invisible mend might seem to have added nothing new to a garment and instead can be taken as just a mundane part of fixing. However, it was within these routine moments of even invisibly mended hidden solutions one finds reconfigurations to the original design assisting in the garments' transformative continuity. In this way, the reconfigurations are confirming and adding to Wakkaray and Maestri's (2011) concept of 'everyday design', as defined in terms of the ordinary yet unique extensions and modifications to already designed products that result from people's daily usage.

Figure 10 Process of mending: define (upper left)-analyse (upper middle)-ideate(upper right)-experiment (lower left)-mend: visible (lower right). Source: author.

Solutions such as these often lurk at the outskirts of professionally recognized design and are easily overlooked (Finizola et al., 2012). However, when using a sociomaterial practice lens to study mending, one becomes sensitive to these hidden features; design is no longer exclusively found in the creations of those holding academic degrees. Rather an appreciation of the 'spontaneous manifestations' of daily artefacts extending both the life and original design of things when in everyday use is granted (Wakkary and Maestri, 2011; Finizola et al., 2012; Kimbell, 2012). Informal design can then be understood in terms of solutions resulting from a reliance on non-industrialized modes of production carried out by non-professional designers for the purposes of extending the planned life of artefacts (Finizola et al, 2012). Therefore, all the various sketches of patterns, prototype patches pinned on mends to get a visual, placing buttons in various places, experimenting with different threads before the actual mend is stitched (visibly or invisibly) too are given equal importance. They are seen aiding in the renewing of garments, and also form part of this process (Kimbell, 2012). 'Things' or artefacts, like design, are seen as open and constantly in a state of what Ingold and Hallam (2007) call 'becoming' and being re-shaped or re-constituted whilst in use (Shove, 2007).

Figure 11 Dynamic process of mending where the vernacular mender began with a pink yarn (middle) but ended up revising and starting again from the ideation phase and finished with black visible mended (right). Source: author.

It is within these collective embodied enactments of mending, distributed across various bodies (not just professional designers), entangled within the sociomaterial that everyday informal design solutions emerge. The solutions reveal how design does not stop with the purchase of new garments. If anything, like designers and/or professional menders, vernacular menders are all carriers or stakeholders involved in the on-going co-constitution of design and designed things (Kimbell, 2012). The next section will take the discussion further by exploring the creative aspects found embedded in the dynamic practices of vernacular mending before concluding.

5.3. Everyday creativities

> I have two needles, one is bigger than the other and I use it for everything and it works. (Restorer)

> I don't have any sewing machine and I don't have skills {…}. I'm hand sewing this kind of dress (button down) {…}. I really like to use this dress in the summertime, and it's usually nice to use it without a t-shirt or top under it so now I can be relaxed after putting this clasp button I found here that I won't show anything from here (pointing to the chest area). (Re-doer)

Using a sociomaterial practice lens to study practices allows for a sharper recognition of the subtleties of creativity found within everyday mending. In contrast to waiting for radically ingenious moments, one finds creativity in the continual "making of the world" (Tanggaard, 2012). Here humans share a close relationship with non-humans and things, which are always in the becoming (Ingold and Haram, 2007), whether showing through visible boros stitching or invisibly adding a feature (clasp button) to a dress to make it fit better. These manifestations imply creativity as not an individual trait achievable by only professional menders. Nor is it understood to be an outcome of individual divergent thinking but comes from contact through materials surrounding us. Making do with what is available (re-doer) or sniffing out materials to make garments look exactly (restorers) as they were, creativity is taken as "fundamentally relational" (Tanggaard, 2012: 25). Therefore, restorers like the non-restorers, vernaculars like professionals, all are entangled in a world of materials with histories that communicate "pre-existing ways of doing" and "emerge as part of specific activity and become part of performative action in the future" (Tanggaard, 2012: 25). This can be seen in the following example of a vernacular mender who initially was following the direction of the threads of the other buttons but upon engaging further with the materials realized the following and altered his way:

I think you put the thread here and here rather than making a cross but I think the rope (shaped on the button) is a guide for the thread to go, the button has holes so the thread goes in and when you are moving the thread it is more safer in the ropes, so when you are doing something the thread doesn't get ruined. And it was supposed to be sewn by following the shape of the rope rather than make a crisscross. It's meant for the thread. And maybe somebody else had repaired it in a crisscross before I found the coat. (Restorer)

While Lapolla and Sanders (2015) might explain everyday creativity sourced in an individual's skill alone, this paper brings the material basis of creativity to the forefront. Like informal design, creativity is seen to be emergent and not taken as a generalized formula to be applied from above onto a practice nor reserved for the 'exceptional' few (Taangaard, 2012). Rather, it is embedded within these small adaptations and improvisations made when enacting practices which on the surface seem standardized. These improvisations are not always exceptional or loud but can also be found in the mundane, the subtle, the hidden and the ordinary. Therefore, unlike Lapolla and Sanders (2015) who place mending on the lower ends of creativity and describe it as lacking in the creation of 'original ideas' (p.185), this study argues that creativity resides in the intractions of the material with social, of the human with the non-human, and in the exceptional as well as the everyday. It becomes a means through which what is known already is recreated (Tanggaard, 2012). Hence, as seen through the aforementioned examples, mending takes current ways of knowing and doing as starting points for building onto. In this on-going, embodied process, vernacular menders constantly rely on the use of their hands and bodies whilst collectively entangled in materials, resulting in dynamic and originally visible or invisible mended design solutions.

6. Concluding thoughts

This paper used a sociomaterial practice theoretical lens to study the dynamic mending practices of non-professional menders as situated in communal repair workshops in the city of Helsinki. In doing so, the study identified them as vernacular menders and revealed the situated, embodied, routinized yet creative process of mending. The created outputs of the vernacular menders resulted in what was termed as informal design and pointed to the need to recognize the fluidity of design and designed objects when in use. The contributions of this study, therefore, reside in the following aims:

- to overcome dichotomies between human/non-human, social/material, designer/user, when studying practices of garment use, and instead highlight the inextricable relations shared between vernacular menders, like that of professional menders/designers, with sociomaterial elements when in the process of mending;
- to acknowledge non-professional designers/vernacular menders/'users' as active tinkerers, extenders of and co-practitioners in design and not passive recipients of designed garments lacking agency;
- to extend current understanding on design authorship to include creatively rich, one-off solutions resulting from non-professional designers' material tinkering.

The relevance of taking such a view assists in bringing forward real-life garment use practices resulting in unique solutions already aiding product longevity. A re-consideration of current mending practices, not as common place drudgeries, but as unique opportunities can also assist in sketching out new roles for professional designers as facilitators in the on-going re-designing of garments. As Twigger (2013) too has claimed, seeing designers in the light of facilitating collaborators (instead of lead/sole practitioners of design and creativity) engaged in sharing expertise with vernacular menders (of varying degrees) could benefit efforts aimed at amplifying garment mending practices whilst bringing in positive environmental change.

7. References

Alexander, C. (1964). Notes on the Synthesis of Form (Vol. 5). Harvard University Press.

Barad, K. (2003). Posthumanist performativity: Toward an understanding of how matter comes to matter. Signs: Journal of women in culture and society, 28(3), 801-831.

Barad, K. (2007). Meeting the universe halfway: Quantum physics and the entanglement of matter and meaning. Duke University Press.

Chapman, J. (2013, 15 October 2017). Repair. Textile Toolbox online. Retrieved from:
http://www.textiletoolbox.com/research-writing/repair/

Cross, N. (2006). Designerly ways of knowing (pp. 1-13). Springer London.

Drazin, A. and Küchler, S. (2015), The Social Life of Materials, London: Bloomsbury.

Finizola, Fátima, Coutinho, Solange G and Cavalcanti (2012), In Virgínia Design, V. Vernacular design: a discussion on its concept. Priscila Lena Farias/Anna Calvera, 552.

Flick, U. (2014). An introduction to qualitative research. Sage.

Gherardi, S. (2012). How to conduct a practice-based study: Problems and methods. Edward Elgar Publishing.

Gherardi, S. (2016). SOCIOMATERIALITY IN POSTHUMAN PRACTICE THEORY. The Nexus of Practices: Connections, Constellations, Practitioners, 38-51.

Graham, S., & Thrift, N. (2007). Out of order: understanding repair and maintenance. Theory, Culture & Society, 24(3), 1-25.

Haraway, D. (1991). Simians, cyborgs, and women: The Reinvention of Nature. London: Free Association Books.

Hawkins, H. (2017). Creativity. London: Routledge.

Henke, C. R. (1999). The mechanics of workplace order: Toward a sociology of repair. Berkeley Journal of Sociology, 55-81.

Ingold, T., & Hallam, E. (2007). Creativity and cultural improvisation: An introduction. In Creativity and cultural improvisation.

Jackson, S. J. (2014). Rethinking Repair. Media technologies: Essays on communication, materiality, and society, 221-39.

Kimbell, L. (2011). Rethinking design thinking: Part I. Design and Culture, 3(3), 285-306.

Kimbell, L. (2012). Rethinking design thinking: Part II. Design and Culture, 4(2), 129-148.

Lapolla,K, M. F. A., & Sanders, E. B. N. Using Co-creation to Engage Everyday Creativity in Reusing and Repairing Apparel.

Lave, J., & Wenger, E. (1998). Communities of practice. Retrieved June, 9, 2008.

McLaren, A., & McLauchlan, S. (2015). Crafting sustainable repairs: practice-based approaches to extending the life of clothes.PLATE Conference, 17th–19th June 2015, Nottingham Trent University, available online at:
http://irep.ntu.ac.uk/7526/1/220771_PubSub2645_McLaren.pdf

Maestri, L., & Wakkary, R. (2011). Understanding Repair as a Creative Process of Everyday Design. In: Proceeding of the 8th ACM conference on Creativity and Cognition. C&C '11. ACM, New York, NY, USA, 81-90

Myers, W. (2012). Bio design. Museum of Modern Art.

Nicolini, D. (2009). Zooming in and out: Studying practices by switching theoretical lenses and trailing connections. Organization Studies, 30(12), 1391-1418.

Orlikowski, W. J., & Scott, S. V. (2008). Sociomateriality: challenging the separation of technology, work and organization. Academy of Management Annals, 2(1), 433-474.

Reckwitz, A. (2002). Toward a theory of social practices: a development in culturalist theorizing. European journal of social theory, 5(2), 243-263.

Schatzki, T. R (2001). Introduction. Practice Theory. In Savigny, E. V., Knorr-Cetina, K., & Schatzki, T. R. (2001). The Practice turn in contemporary theory. London: Routlegde, pp 1-14.

Shove, E., Watson, M., Hand, M., & Ingram, J. (2007). The design of everyday life. Berg.

Shove, E, Pantzar, M and Watson, M.(2012). The Dynamics of social Practice: Everyday Life and How it Changes, Sage, Los Angeles, London, New Dehli, Singapore.

Spelman, E. V. (2003). Repair: The impulse to restore in a fragile world. Beacon Press.

Strati, A. (2007). Sensible knowledge and practice-based learning. Management learning, 38(1), 61-77.

Tanggaard, L. (2013). The sociomateriality of creativity in everyday life. Culture & Psychology, 19(1), 20-32.

Twigger Holroyd, A. (2013, January). Rethinking the designer's role: the challenge of unfinished knitwear design. In Futurescan 2: Collective Voices (pp. 162-171). Association of Fashion & Textiles Courses.

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"People Gather for Stranger Things, So Why Not This?" Learning Sustainable Sensibilities through Communal Garment-Mending Practices

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Abstract: This study uses a sociomaterial practice theoretical lens to explore the learning processes and outcomes of non-professional menders emerging through their participation in communal mending workshops. Recent years have witnessed an emergence of repair workshops that seek to provide an alternative to the make-take-waste paradigm dominating the fast fashion industry in most Western countries. The paper is based on three months of extensive fieldwork in six repair workshops in two cities in New Zealand (Auckland and Wellington). Thirty-five in-depth interviews, eight follow-up surveys and field notes from participant observations were used to collect data. A triangulation of the methods and open coding helped identify three types of learning streams from the data: material learning, communal learning, and environmental learning. The learned outcomes aided in equipping participants with knowledge of *how* to mend, extend use of existing garments, address alternatives to garment disposal, create feelings of caring, self-reliance and empowerment in communities, and differentiate between good- and bad-quality garments. In this way, communal workshops help users to be more proactive in providing sustainable local solutions to global ecological problems and create diversified learning around sociomaterial and ecological aspects of garments and their use. This could potentially create awareness of the importance of buying better and more durable garments in the future to keep them longer in use.

Keywords: learning; mending; sociomaterial practice; sustainability; fashion use

1. Introduction

Mending has been identified as crucial to supporting garment longevity while addressing sustainable transitions within clothing use practices [1–6]. Over the years, the fast fashion industry has created a culture of overconsumption, in which consumers frequently dispose their garments and replace them with new ones. This has led to a reduction in the use-time of garments [4]. Most of the unwanted garments are either sent to charity shops or end up in landfills [7]. Fletcher notes that users can play a vital role in reducing textile waste by extending the use of garments through maintenance practices, such as that of mending [8]. However, it is claimed that people often lack the skills, time, and confidence to mend their clothing on their own [4]. Additionally, mending has traditionally been perceived as a practice for the economically needy [5]. To address this, the Repair Café Foundation was founded in the Netherlands in 2012 with the mission of challenging the social and time-cost-skill barriers to repairing garments in a holistic manner. By offering an alternative approach to mending, the Foundation set up various cafés where people could gather to learn from those who knew how to repair, free of charge. Instead of seeking to change current garment use practices through a one-way "dissemination" of knowledge via adverts, media campaign or clothing labels, on the benefit of extending use [9], they invited the public to participate in and collectively

work at achieving sustainable goals though user engagement. Since then off-shoots of this concept have proliferated across various other Western countries. Some of whom are part of the Repair Café Foundation while others operate independently to host their own communal mending workshops. All of which offer free spaces to people where they can come and either utilize the provided material to mend garments, learn how to mend first-hand or get assistance in their mends while working together with expert menders.

The aim of this study is to show the importance of the sociomaterial context in which knowledge emerges as being key in better identifying and strengthening emerging pro-environmental shifts within garment use practices. Fletcher too points to how garments are quite often tied to a social world that impacts users' inclination to mend more so than any other factor [10]. Therefore, if the fundamental aim is to change practices it is important to look further into the social as well as the material elements to which practices of use are tied. In doing so, how people learn to perform (and reform) a practice becomes a central area for discussion and consideration when attempting to alter practices. To do this consumer action must not be viewed with an archaic cognitive-based linear model. Whereby, it is assumed that practices are led solely by psychological factors and by giving the public a set of instructions their cognitive composition will change, they will act upon it in a rational manner and alter their practices [11]. Alternatively, divisions between knowing (as residing purely in the mind) and doing (as led solely by the mind) are avoided altogether. Instead the sociomaterial entanglements of humans with non-humans while in the performance of a given practice are given equitable precedence [12]. It is important to understand that simply by rolling out media campaigns, inculcating sewing classes or providing online access to video material in school curriculum [13] cannot assure the proliferation of mending practices. Therefore, conversations around creating rich understandings on the role of learning as a situated sociomaterial practice are essential if garment use practices are to be steered towards a more sustainable path.

In doing so, this paper took a non-cognitive sociomaterial practice theoretical and methodological approach in its exploration of data gathered from a three months extensive field work set in six communal garment-mending workshops of New Zealand. The objective of the study therefore resided in answering the following research questions:

- *How* do practitioners learn the practice of mending in communal settings and become members of a community of menders (practices)? (Theories of practice see every day performances of practices as they are occurring in real-life setting. Which is why the word how was italicized in order to emphasizes and show importance of understanding the unfolding of practicing in a given context (see Gherardi, S.; Perrotta, M. Between the hand and the head: How things get done, and how in doing the ways of doing are discovered. Qual. Res. Organ. Manag. Int. J. 2014, 9, 134–150.))
- What learning outcomes emerge from working with and through humans and non-humans in the performance of mending?

A generative analysis of the data helped in identifying diversified learning outcomes that were categorized as: material learning, communal learning, and environmental learning. Social repair events such as these were seen to employ alternative and inclusive means of sharing knowledge. The learned outcomes pointed to the importance of and the need for supporting informal learning platforms aiding transitions in user practices towards pro-environmental routes. To ground the findings and insights of this paper, learning as a sociomaterial practice will first be introduced followed by a description of the conducted empirical research and a detailed discussion of the results. Finally, concluding by presenting suggestive paths for accelerating mending practices in the future.

2. Theoretical Framework

This paper uses a sociomaterial practice theoretical framework to gain a deeper understanding of the learning processes and outcomes emergent in communal garment-mending workshops. It thereby

differentiates itself from studies that have taken a more action-oriented approach towards garment use practices [5,13]. Consequently, the study draws on literature on the practice turn or "return" to theories of practices, wherein ways of knowing, doing, and saying are taken to be entanglements of a sociomaterial world [14,15]. Although there is no single definition of what is meant by a practice, Reckwitz has defined practice as a "routinized type of behavior which consists of several elements, interconnected to one another: forms of bodily and/or mental activities, 'things' and their use, a background knowledge in the form of understanding, know-how, states of emotion, and motivational knowledge" [15] (p. 249). One of the distinguishing features of theories of practice is that the intentionality of the individual behind a practice is not taken as their starting point [16]; instead an egalitarian view on the performances of practices is sought. In other words, agency is understood to be distributed between the non-human and the human elements that make up a practice [16]. Thus, understandings of everyday practices are not reduced to explanations based on individual motivations or drivers alone. Instead of focusing just on the "why" of daily practices, practice theories focus on the "how". Investigations into how practices occur, as they occur or happen, allow importance to be assigned to the context in which they are occurring [16,17].

When the focus is shifted away from the human or individual when trying to understand practices, the dynamics of the materiality or the non-human elements come to the surface [16,17]. Materiality or material elements are then not taken to be mere background tools mediating a practice or assisting learning; rather, they are understood as equal elements making up a practice. Therefore, materials are not viewed as static, but as dynamic and deeply entangled within the social, and through a relational constitution of the two results in bringing forth performances of everyday practices [16]. Taking an egalitarian approach to practices also means rejecting dichotomies between mind/body, knowing/doing, object/subject, human/non-human, individual/collective, and formal/informal learning. Therefore, binary or cognitive approaches to the understanding of knowledge as residing within the mind alone are overcome by treating knowledge as distributed between different bodies (human and non-humans) [17]. Thereby, practices can be understood as enactments of knowledge and learning becomes "an integral and inseparable aspect of (social) practice" [18] (p. 31). Theorizing practices in such a way allows a switch from purely cognized theorizations of learning to social ones [18].

Lave and Wenger argue that learning does not happen in the mind of an individual alone but is done within practice [18]. They view learning as emerging from and through what people do together in everyday life. For this reason, knowledge comes to be understood as a collective practice achieved through participation in various practices, resulting in what has been called a "community of practice". Based on this view, members of a community participate in the performance of practices and through regular participation can move from the margins and take their place as fully participating members [18]. Enactments of knowledge are not only embedded in their context, but also contribute to the development of the practice itself [19]. Furthermore, knowledge is not spread only by a few practitioners to other people in a top-down fashion. Instead, it is seen to be distributed between various bodies and through their "intractions", as Barad [20] terms it, learning emerges from "active collective engagement in particular contexts" [17] (p. 83). This indicates that practices are a form of situated knowledge and learning is not a result of individualistic cognitive processes alone [17]. Gherardi further points to the importance of not assuming that the context is pre-determined; instead, it should be viewed as emerging through the entanglements of the social with material elements in the enactments of practices [19]. Doing so brings a focus on an egalitarian understanding of both the material and social elements of learning (and not just the social, an aspect that has been under-theorized by Lave and Wenger).

In the same vein, Schatzki privileges practice over the mind and acknowledges that the residency of knowledge emerges through the entanglements of humans with non-humans or in the arrangements of the world [14]. In this position, knowledge is seen in the bodily performances (embodied knowledge) reliant on the senses (sensible knowledge) emerging through intractions of humans and non-humans,

which means that practical know-how is part of it too [14,21]. Furthermore, knowledge then becomes an ongoing accomplishment through these performances and "objects and their material world can be construed as materialized knowledge" as well [16] (p. 137). Viewing practices as a constitutive entanglement gives equal weight to both doing and knowing, and eliminates distinctions between the two [22]. Practices and the understanding of their performance come to be understood as being situated in the social, the material and the discourse. Gherardi [23] states that knowing in practice and about practice is always an ongoing accomplishment. Therefore, saying, doing and knowing cannot be separated and are all "expressions of the same sociomaterial world" [12] (p. 42). In such a way, the world becomes discursively constructed and knowledge is seen to emerge in conversation as well. Situations are also produced and materialized through language [19] (p. 521). When viewing talking as doing, language is no longer taken to be just words; rather, it becomes a practice or discursive practices. Focus is brought to "material and discursive practices through which entities and their interactions are enacted into being" [24] (p. 107). Acknowledging talk as action further gives importance to the context in which it is being performed and not who or why is performing but what and *how* is being performed. This allows for a renewed understanding of knowledge as seen in performances resulting from intractions of the human with the non-human entangled in a sociomaterial and discursively sustained world [25] (p. 523).

A sociomaterial practice theoretical lens, therefore, offers greater sensitivity and attunement to alternative learning processes that are better suited to addressing actions aimed at bringing about pro-environmental change. Instead of taking moralistic or normative approaches to bringing about change, an understanding of how practices come to be is developed [2]. Change is then not sought through a top-down legislative approach but can instead be understood as emerging from within. Alternative learning systems and environments can then be identified and better supported to nurture sustainable practices. Thus, openness is fostered towards recognition of informal learning platforms, such as communal repair workshops, as incubators of altering garment use practices. The following section will provide empirical data to further anchor the arguments presented in the paper.

3. Materials and Methods

A previous study on the mending practices of non-professional menders in Helsinki, Finland [26] and the present research form part of the author's on-going doctoral work on mending practices situated within self-organized groups. This research followed a sociomaterial practice theory-based methodological sensibility while gathering and analyzing data. This means that when studying practices empirically, researchers start from an "outsider's" perspective by documenting the structure of a given practice, after which the researchers "zoom in" to study the practice from an "insider's" perspective [27]. This enables a thorough inquiry to be made into the subject of study and results in a methodically rigorous and generative analysis of the data [28]. Details of the data are provided below:

3.1. Data Collection

A four-phase mixed-method research design framework was created for the present study, relying on the following methods: (a) web search; (b) in-depth interviews; (c) participant observations; and (d) surveys. A tabular representation of the framework can be seen in Table 1. The fieldwork itself took three months, from August to October 2017, in two cities in New Zealand (Auckland and Wellington). However, prior to this, online research and contact through emails had been established by the end of April 2017. The purpose of doing an online web search in phase one, prior to the fieldwork, was to identify and map out the groups that were involved in repair workshops in the region. Seven organizations (six in Auckland, one in Wellington) were identified. They were asked whether they would consent to being interviewed. Three of them replied by email that they would.

During phase two, in-depth interviews of the three organizers of mending workshops were conducted. The aim at this stage was twofold: first, to gain an understanding of the operations and activities of the workshops and, second, to obtain permission to participate in their upcoming mending

events. The interview questions, therefore, were primarily on the history, objectives, future plans and structure of running the repair workshops. These interviews were audio recorded and transcribed in full. The selected organizer's consent to participate in their respective mending workshops allowed phase three of the data collection to take place.

Table 1. Four-phase data collection framework. Source: Author

Phase	Objective	Data Collection Method	Data Recording Tools
One	Identify mending workshops Make contact	Web search Email	Map creation
Two	Interview organizers	In-depth semi-structured interviews	Transcription of audio recording Field notes
Three	Participate in mending workshops Interview participants	Participant observation In-depth semi structured interviews	Transcription of audio recordings Field notes Pictures and short video clips
Four	Follow-up on participants	Interviews Short surveys	Transcription of audio recording Field notes

In this stage, observations were made through actual participation in six mending events, four in Auckland and two in Wellington. Field notes were kept with the intention of observing the dynamics of the various menders with regards to their peers and the materials while in the process of mending, reflections of menders during and after mending garments, and observations on how the menders mended. In addition, on-the-spot participant interviews were conducted. All the interviews were conducted while the menders were engaged in mending. The purpose of conducting the interviews in the workshop setting was to better account for the situatedness of the learning process as it emerged through their mending practices [16,17]. The in-depth semi-structured participant interviews lasted between 20 min to 1 h. Although an interview guide was used, the questions were kept open-ended to allow the participants to freely share their reflections through their narrations. The semi-structured nature of the interviews also provided space for identification of tacit forms of learning that emerged through the participants' verbal responses, even if they were not always aware of it [16,29]. The interview questions addressed topics related to the menders' previous experiences with mending, how they learned the practice, descriptions of how they mended, regularity of their visits to the communal workshops, challenges faced while mending, reflections after finishing their mends at the workshop, and mending experiences while in the company of others. Furthermore, observations were also made during the interviews to identify moments where communication through language was replaced by bodily gestures to identify expressions of embodied and sensible learning [14,16,21]. All the participants provided verbal consent to being interviewed and were given the option to remain anonymous. The interviews were audio recorded and transcribed, and field notes, pictures and short video clips were made to help capture the dynamic process of mending [26].

After a gap of one month, three follow-up interviews of returning participants to the mending events were carried out in September 2017. Those who were not able to return to the monthly workshops were sent short surveys via email in December 2017. Eight of them responded back. The follow-up interviews and surveys contained questions on the techniques that the participants had learned, whether the mended garments were still in use or replaced with new purchases, whether they had mended other garments and if their skills had improved since the first interview. Phase three and four of the data provided up-close documentation of participant mending practices, learning experiences, perspectives on mending in communal settings and learning outcomes emerging through their mending practices.

3.2. Data Analysis

To understand how learning emerges through sociomaterial entanglements and what learning outcomes result from them, a triangulation of methods was used to analyze the collected data [30]. A total of 35 interview transcriptions (29 participant interviews, 3 follow-up participant interviews, 3 organizer group interviews), 8 surveys and field notes formed part of the analysis. Additionally, pictures and short video clips helped in capturing moments of mending that were performed by various bodies in the workshops but were not analyzed as such. However, these images did help to document embodied aspects of knowledge that the participants expressed implicitly but could be seen to emerge explicitly through their doing [16]. The saying, doing and knowing practices of the participants were all taken into consideration, due to which a triangulation of methods proved useful [16]. This meant a better identification of moments where bodily gestures replaced verbal expressions during the participant interviews. Observations from field notes provided supplementary support for the documentation of the learning process as it was seen to emerge through their mending practices. The analysis was done using open-coding in three parts. The first set of analysis and codes were generated by studying the data from phase one and two. This helped to create an overall understanding of the operations, structure of activities and motivations behind the workshop events.

The second set of analyses was done by focusing on the data from phase three and four. Here the data revealed various themes or learning topics as they emerged through the participants' doing, saying and knowing practices of mending. These were collated and used to generate three major common emergent themes, under which various sub-themes were created [30,31]. In the third phase the data was analyzed to identify the variations in the practices of menders. Upon analysis of the menders and mending practices in the current study, patterns similar to the authors' previous study emerged [26], resulting in the identification of the same four groups of menders (Section 4). This added validity to the results generated by both studies. Following from this, links were made between the first two levels of analysis to help identify different forms of learning (explicit and implicit) as resulting through the practices of communal mending workshops. The three forms of learning outcomes were then cross-referenced with the four types of menders to account for any similarities and/or differences in their learning. This will be explored further in the Results section.

Limitations in the number of communal workshops and participants included in this study means that the results are specific to the context of this research. However, the limited quantity of the data did lead to an in-depth rigorous analysis of the data [32]. Therefore, the findings provided indicative depth to the study in its attempt to account for the potency of alternative learning platforms in aiding pro-environmental practices.

3.3. Describing the Data

3.3.1. The Organizers

All the groups chosen for this study provided mending workshops free of charge to the public. They used social media and/or local newspapers to advertise their events. Each event ran from three to four hours and was arranged once a month at the same location. The organizers themselves did not do any mending but arranged for the event to take place by providing the space, materials, and helpers. The aim of the workshops was to invite the public to bring in their existing garments in need of fixing to extend their use and divert them away from binning used clothing. Three types of menders participated in the events: (1) Expert menders professionally trained in the fields of textiles/fashion (invited occasionally); (2) Non-professional experts without a fashion/textiles degree who volunteered to help others with their mends (participated regularly); and (3) Non-professional participants who mended their garments, either on their own or with assistance from others, and who also did not possess fashion/textiles degrees. The workshops provided equipment such as sewing machines, threads, needles, scrap fabric, zips, buttons, and other haberdashery to the participants. A table was usually set up with the materials and the participating menders (professional and non-professional)

sat together around it doing both hand and machine mends. Two of the chosen groups were-based in Auckland and one in Wellington (Figure 1). Each of the organizing groups is presented below, followed by a description of the participants/menders that came to the workshops.

Figure 1. Communal garment-mending workshops in New Zealand: (**a**) Menders mend at the Gribblehirst Community Center repair workshop, 2017; (**b**) A workshop session in Wellington hosted by On the Mend, 2017; (**c**) Garment-mending workshop at the Community Recycling Centre at Devonport, Auckland, 2017.

1. Gribblehirst Community Hub, Auckland, New Zealand

After a group of Sandringham residents, a neighborhood in Auckland, received a grant from the City Council of Auckland, they converted an abandoned bowling alley into a community center and formed the Gribblehirst Community Hub in 2014. The purpose of restoring the alley was to create a multi-use space for residents to use for various activities. Inspired by the repair café movement in the Netherlands, the Gribblehirst Community Centre hosted the first repair event in the country in 2016. Since then they have held monthly repair workshops open to the public and do not charge any fee for entrance or usage of material. A monthly membership fee is charged from those who want to be part of the Community Hub. However, public events such as the repair workshops are free of charge and are funded using membership fees. The Centre has on occasion invited professionally trained menders to the garment-mending events to assist people with their repairs. However, non-professional local menders possessing previous repair experience usually volunteer to

help novice menders. For this study, the focus was placed specifically on the non-professional garment menders, both the volunteer helpers and the participants mending their garments or having them mended. Neither the helping volunteers nor participating menders possess professional backgrounds in fashion and textiles. The Centre runs with the clear aim of minimizing waste while creating self-sufficient communities through skill sharing. The members of the Community Hub see themselves as guardians of the environment and protectors of their communities.

2. Community Recycling Centre, Devonport, Auckland, New Zealand

Run by local program managers, the Recycling Centre in Devonport is part of the non-profit organization Global Action Plan Oceania. The Centre's activities are predominately focused on recycling, repairing, communal gardening, and reducing waste. After receiving a waste minimization grant from the local city council, the Centre purchased a tools truck. The truck carries equipment from sewing machines to screwdrivers. The truck is mostly parked at the Recycling Centre where they host repair workshops similar to Gribblehirst's workshops. Since 2016, they have also organized pop-up, one-day events in which they drive the truck to various locations across the city. The Centre advertises in advance on social media regarding the whereabouts of their pop-up events to encourage the local residents to get their things fixed. The data gathered here, too, was specifically related to garment-mending activities within the workshop events at the Centre. During the repair events at the Recycling Centre, the program managers play the role of ushers and help in facilitating and hosting the overall workshop. Like at Gribblehirst, they often invite skilled professional garment menders, but also get volunteer non-professional menders to help others with their mends. Additionally, they work to build up the capacities of other smaller community groups by equipping them with the resources/tools they need to host their own individual repair events. In this way, the Centre wants to create a menders' movement across the city to encourage tinkering with garments in unconventional ways, extend the life of garments and spread the knowledge of how it is done.

3. On the Mend, Wellington, New Zealand

Based in the capital city of Wellington, On the Mend is a monthly garment-mending event hosted and run by a social enterprise consultancy called the Formary. After April 2016, when it received funds from the city council of Wellington, the Formary began a series of garment-mending workshops on every second Thursday of the month. Frustrated by the current model of fast fashion and ever shrinking garment lifespans, they decided to address the issue by encouraging mending. Not only do they want to help divert garments away from landfills, their aim is to help keep existing garments in use for as long as possible. Their primary focus is on sharing knowledge of not just the environmental impacts of the textile industry but also mending techniques. To this end, they invite a professional mender every month to their events to give a demonstration on a mending technique. The professional menders possess degrees in the field of textiles and/or fashion. After the demonstration, the professional mender oversees the non-professional participating menders and assists them with their mends, if necessary. The event is held at the same local restaurant every month and is free of charge. The participating members are provided with free access to haberdashery needed for the mend. On the Mend hopes to encourage people to take better care of their clothing and work towards reducing garment waste.

3.3.2. The Menders

The focus of this paper has been on the learning process of the non-professional garment menders. They included both the expert volunteers helping with the mends and the novice participants. Apart from the professionally trained experts invited to the workshops, all the menders belonged to a range of non-textile/non-fashion professions from social media assistants to computer engineers. All of them were locals residing in the two cities of Auckland and Wellington. The youngest participating mender was aged 21 and the oldest was 69. There was a mix of both genders; however, the majority

of them were women. Menders would bring in a wide variety of everyday wear garments that they owned to be mended, ranging from skirts purchased from fast fashion brands such as forever 21 to leather jackets inherited from family members. Additionally, the menders had a wide variation in their previous experiences with mending. Some of them were more experienced than others, some had never mended nor participated in the workshops before, but all were engaged in fixing or getting their garments fixed. Appendix A provides details of the interviewed menders. Furthermore, a variety of ways of mending was observed, from seamless invisible mends to garments featuring boldly visible mends. The following section will describe in detail the results that emerged after analyzing the menders' practices, their learning processes, and outcomes.

4. Results

The three groups chosen for the study shared two major motivations: a strong emphasis on reducing waste in local communities by mending garments, and capacity-building through sharing knowledge of how to mend. The present study also confirmed the existence of four types of menders, who are similar in their practices of mending as those seen in an earlier study [26]. Based on the previous study, the identified mender groups were defined as restorers, re-doers, recruits and the reluctants [26]. Restorers are highly skilled, mending in ways that are often invisible. Re-doers, on the other hand, make their mends visible and can be at either an expert or beginner level. Yet both groups share an element of redesign that adds strength to and improves the original quality of the garment. Recruits, as evident from their name, are first-timers who have never mended before. They may mend either visibly or invisibly, as they are open to learning all sorts of techniques. The reluctants, however, come to the mending events but do not mend themselves. Instead, they give their garments to the experts for mending. Yet they keep a watchful eye as the expert mends their garment, and they often voice the desire to do it themselves in the future. The reluctants usually prefer invisible mends and in this way share similar traits to the restorers.

An important point to note is the fluidity of these categories. Non-professional menders move between these categories, which mean that a restorer could also be a re-doer, or a recruit could share some of the same traits as a restorer or a re-doer [26]. Furthermore, with repeated participation in the practice, beginners (reluctants/recruits) can become fully participating menders in a community of practitioners [18]. Additionally, no difference—rather, a similarity—was seen in *how* each group learned to mend. Use of the hands while assessing the tactility of the materials folded between their fingers, frequent glimpses at peers mending while engaged in their mends, were found common to all menders. It is important to mention the various groups of menders and mending practices here as they reveal the non-static nature of mending [26] and point to the sociomaterial dependencies inherent in the learning process of all menders, irrespective of the level they might be at [16–25]. Thus, validating learning as a social non-cognitive accomplishment tied to a sociomaterial context. The repair workshops, therefore, provided a space where rich forms of learning abound. The three types of learning outcomes that emerged through the sociomaterial intractions of the menders will be discussed as follows.

4.1. Material(-ized) Learning

Using a sociomaterial practice theoretical lens allowed for a better identification of the learning processes emerging through and between human and non-human intractions during mending [16,17,19,25]. Menders unanimously mentioned the different ways they had adapted their mends to the friction or fusion of the garments. Material learning or learning with and through materials occurred constantly as the sensing bodies of all menders worked in conjunction with the garments [16–25]. Thus, learning the techniques of how to mend any given garment was significantly dependent and entangled within the matter or material qualities of the garments, irrespective of the type of mender engaged in the practice. As seen through the following two menders:

Re-doer: "You always learn something new. I think every garment is different and every mend is different. For example, these two trousers have holes and one is a knit fabric so it is stretchy and the jean fabric is not stretchy. So you have to attach the patch in slightly different ways because that needs a bit of a movement. The patches are the same but when I attach it I will do a different stitch for each. I will make sure my stitch can move with the one that needs a bit of a stretch. You learn every time. You need to understand how the fabric is and I have done that wrong before but that's why I know how to do it now".

Reluctant: "I just realized that you have to unpick zips properly. Otherwise it can be a problem and then installing them again and repairing them properly. And I tended to diverge from the natural lines and made it messy { . . . } But I think I'll be able to do it now and I'll start it".

The mended outcomes materialized all that the menders had learned through participation in the community of menders. They reflected on how they learnt what could and was possible to mend through close intractions with the materials. The surfaces, structures and make of each garment guided all the menders to find unique paths for their mends. Furthermore, they enabled the menders to learn how to redesign and renew old garments (Figure 2), as the following mender explains:

Re-doer: "I learned here, kind of a decorative techniques or cross stitching { . . . } you can add a bit more personality to it so instead off just patching something or mending with exactly the same color. You put a completely different color on and it just stands out and I think it's cool. It makes it a bit more individual but it is also a bit more fun too".
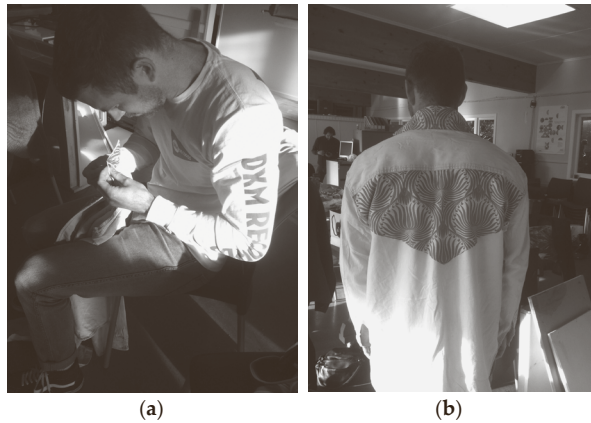

(**a**)　　　　　　(**b**)

Figure 2. (**a**) Re-doer mends the frayed collar of an old shirt and (**b**) re-designs it entirely using scrap fabric found in the workshop. Gribblehirst Community Hub workshop, Auckland, New Zealand, 2017.

Several ways to improve the quality of the original garments were also achieved through experimentation with mending different materials. Furthermore, menders learned how to work through their bodies by attuning in with the garments [16–26]. As the menders sought to gain an understanding of what works with what type of garments, an intimacy and connection could be seen to unfold between the menders' bodies and the garments. Additionally, many even claimed they preferred using their hands rather than a machine to mend (Figure 3). This is explained by the following menders:

Recruit: "It's very therapeutic. I feel like I'm going to calm down and get my mind off things. It's really fun and nice and feeling connected to something and having a close bond with your stuff".

Restorer: "For me, using a needle and a thread, I prefer the immediacy and intimacy of hand stitching. I prefer it if I don't have to deal with a motor or sit at a table and you know it just feels

more flexible and intimate. I feel like a sense of slow satisfaction. It's almost like meditative. { . . . } I love it. It's cathartic and relaxing, it's a way I tune out and I don't get distracted, it's a way for me to concentrate".
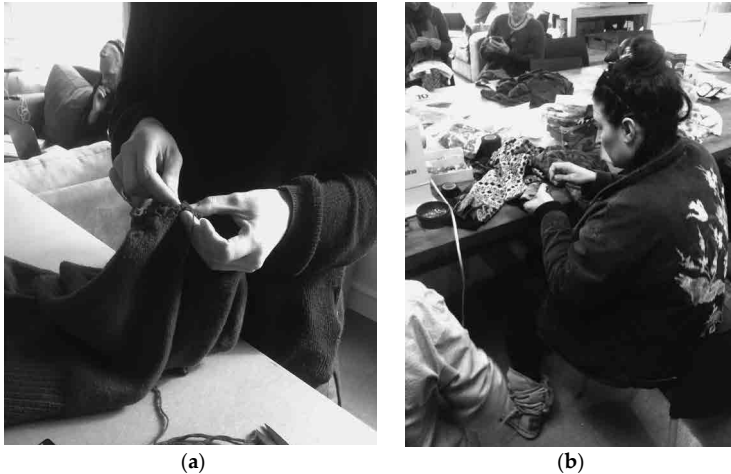

(**a**)　　　　　　　　　　　　　(**b**)

Figure 3. Menders learn how to mend as they work with and through materials and hands to guide them through. (**a**) Recruit learning to harness her mend through following the grids within the yarn, 2017; (**b**) Re-doer assessing the strength of the fabric while covering up the hole on the cuff. Gribblehirst Community Center Hub mending event, Auckland, New Zealand, 2017.

An important point to note is that mending enabled the menders to learn about not only the possibilities but also the limitations of materials. The outcomes of the menders' efforts were not always successful, but even that allowed them to gain an understanding of variations in material quality and helped them in differentiating between good- and bad-quality materials. This can be seen in the following two examples:

Restorer: "Trying to fix these (coat) pockets, it's possible to fix with hands. But you know these pockets, it's silk, it's gone, but I know my limits and I know it can't even be fixed with a machine. So I know it's a temporary fix.'

Re-doer: "I mended a pair of jeans last time. Did a patch-up job. I have worn it afterwards but I decided to re-do it because the material that I mended with that night, it was almost like a nylon and I figured I should get a more sturdy denim-like patch to put on the inside. So I have decided to re-do it but I have worn it still".

Repair workshops and events such as these provide platforms where menders of all skill levels learn, by working with the materials, various techniques of mending, how to customize, personalize, redesign, learn about material quality, material limitations and add durability to the garment. Therefore, they gain knowledge about materials through the intractions with materials and with other menders. Material learning, therefore, is not taken to be separate or disconnected from the social elements, as it is within the entanglements of the two that bring forth the three forms of learning stated and shown in this study (Table 2). The next section will describe the second type of learning that came about in the workshops.

Table 2. Menders learned outcomes. Source: Author.

	Learned Outcomes		
How?	Material(-ized) learning:	Communal learning:	Environmental learning:
	Learning to mend with and through materials.	Learning to mend with and through other menders.	Learning to mend with and through materials and menders.
	This results in learning about:	This results in learning about:	This results in learning about:
What?	Garment maintenance	Sharing resources	Waste minimization
	Garment customization	Communicating	Extending garment use
	Garment re-use	Creating connections with others	Buying less
	Technical durability of garments	Self-reliance	Buying better quality garments
	Limits of materials	Resolving problems locally	Improving quality
	Material quality assessment	Giving back to community	Activating users
	What can be mended		Caring for existing garments
	Working with hands/body		

4.2. Communal Learning

While working on their mends, all menders—experienced restorers and novice recruits alike—spoke about how they learned better when in the company of others [16,18] (Figure 4). The reasons for their saying so were rooted in the personal attention they could seek from more proficient participants in the workshops, a feature they found to be missing in traditional education institutes and online resources. Other stated reasons included getting customized knowledge suitable for their particular mends. Some even said that watching others sparked creative ideas on how they could mend their own garments [16,24,26]. This reveals the importance of the context in which learning occurs, and also shows how learning is not a purely cognitive process but emerges through a mutual constitution of sociomaterial elements [16–18,24]. Below are some of the menders' reflections that show the similarities across all four types of menders:

Recruit: "Of course I can go to YouTube and learn how to mend something but I know for me I will only do something if someone shows me how to do it. I need to have some kind of presence and demonstration and I need to do it with someone and they need to show me and that's how for me it becomes something I actually learn and will repeat. And I've tried learning through videos or reading books but I just don't take it in or get distracted or don't learn. But when I'm with someone and they are showing me and I can immediately put it into practice it really reinforces something and I think I can go away feeling like I can do it again because I physically achieved it once. And so that is a really big part of why I really wanted to come here to an actual real life event as opposed to watching something online".

Restorer: "With YouTube you can't ask someone and everyone on YouTube does it so perfectly the first time and you are like, ughh, this is not happening, everything gets tangled. So I think it would've been helpful if you do it with people and you can ask".

Re-doer: "It seemed like a nice evening to come to and learn some new ideas { . . . } I have got some frays in my denim so I came here to see what the option could be for that".

Reluctant: "I brought a couple of pair of trousers that have holes in them { . . . } I kind of showed them what was wrong, then left it up to them { . . . } I learned a bit about how to unpick and sew on iron on patches and backing on with the glue, different types of stitching—this pocket was hand stitched".
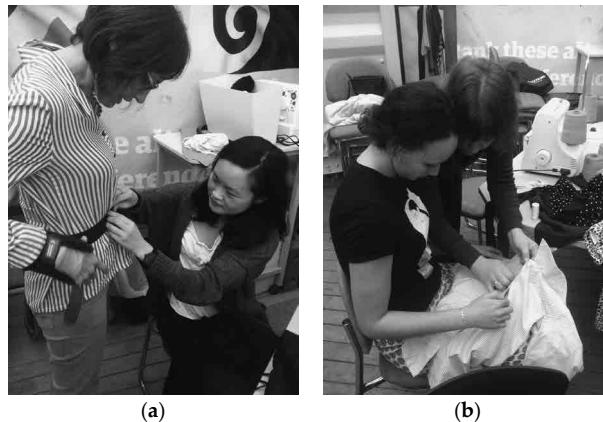
(**a**)　　　　　(**b**)

Figure 4. Menders working with and through others to learn how to mend (**a**) Restorer (volunteer expert mender) helping reluctant measure waist band to fix leggings, 2017; (**b**) Recruit mender watching carefully as the expert guides her on how to stitch back a button. Mending event at Community Recycling Center, Devonport, Auckland, New Zealand, 2017.

Mending in groups not only reflected how learning took shape but also led menders to learn how to be self-reliant. Participation in communal workshops helped them to learn the technicalities of the skill of mending while also bolstering the confidence of many, particularly among the recruits and the reluctants, as shown by the following excerpts:

Recruit: "Practical knowledge, so that the next time something like this happens I don't sit around like a turkey waiting for it to magically repair itself and I'd do it myself".

Recruit/Re-doer: "It was lovely to learn a new skill and I'm excited. I feel like a bit of a catalyst in a way. It's very exciting and I'm so impressed with the shirt. It's been a really lovely day".

Recruit: "I think it's very productive and self-sufficient and you feel you can do it yourself and you don't really need to rely on someone else to fix your problems and stuff and it gives that sense of independence { . . . } It's more motivating and productive".

Furthermore, the learned skills not only resonated through the mended garments but also became known in conversations. In their processes of mending, menders learned to communicate in practice and about the practice of mending [19]. This steered the induction of the recruits and reluctants from the peripheral margins to become more experienced, fully participating restorers and re-doers in the community of menders [18]. Therefore, being able to share a common language gave room for conversations to flow smoothly and the participants expressed a feeling of belonging, as can be seen in the following quote:

Reluctant: "I think somehow you share the same values and you can speak the same language and that's why we do it in groups and we are in the same space and do our own interest together { . . . } and you make friends and you can connect with people, so it is easier and nicer".

One participant even shared the frustrations felt when not being able to communicate prior to learning about mending:

Recruit: "This is a tote and the straps are wearing a little. And this is, well, I don't even know what to call that, you know I don't even have the language".

The same mender, after participating in the workshop, was seen narrating about the practice more freely and fluently:

Recruit: "I learned from Trish who I hadn't met before and she taught me that it could easily be done with a blanket stitch. And that this kind of stitch is the hand worked version of the over locked stitch so that is the blanket stitch and that is invisible. And that was cool and I'm very happy".

As the menders mended, they were able to learn how to communicate about the practice in practice [19]. The knowledge of all the menders were thus seen to emerge through their doing and saying simultaneously without there being a clear demarcation or an obvious awareness on the part of the menders [16,17,24]. The following is an example of a mender who without realizing it was not only able to communicate the technicalities of mending, but also learnt the language of the practice while she was in practice:

Recruit: "I learned button sewing and just like how to overlock and I learnt that if a zip is broken we can just put a Velcro on instead and I learned how to do alternative fixes instead of fixing the zip—how to do something else to put it together and be creative".

Moreover, in their conversations, the menders also expressed a desire to give back to their communities. Many even explained that they learned to care more for and bonded with their community through their experiences at the repair workshops. Some reflections from menders are presented below:

Re-doer: "I think it is a very rare and different type of setting. You don't often get this, you know, people from anywhere around just come in, so it's a very community-oriented thing and I think it's [a] very nice thing to do. It's a really community bonding thing you know . . . Last time I came I brought a broken toaster and I said I'll help out and I'll bring my sewing machine and someone can fix my toaster".

Re-doer/Restorer: "I had a cat that went a bit crazy. He ate really big chunks of my woolen jumper { . . . } one of the ladies who organized these events thought the story was absolutely hilarious and she offered to mend it for me which is amazing because she doesn't really want anything for it. I thought it was an amazing and lovely way to do something for the community and it encourages me to do the same and do more for other people as well. Like a lot of the socks that I darned I handed down to others { . . . } it's really nice to do that and not expect anything in return, just keep sharing the love, and it's not just about the hooks and the needles and the yarn—it's about sharing and learning in a community".

Restorer: "I think it produces a more caring type of society and just because of good things that happen that get spread around. You leave feeling very good that someone has done a good service for you and helped you".

The term communal learning was used here to highlight the social groundings seen within the skills learned by the menders. It is important to note that the social elements are enmeshed well with the material and vice versa. Therefore, the use of the term communal does not suggest a division or separation between the two. Rather "communal" was used instead of "social" to explore deeply all the contours of learning that were not restricted to learning with others only. Hence communal learning was used to also include learning that emerged about others, surrounding localities, their shared language, practice, and caring ways to make their communities better.

4.3. Environmental Learning

Although the three organizing groups chosen for the study share a strong environmental ethos, none of them explicitly delivered lectures during the workshops on the importance of waste minimization or reusing garments to prevent environmental degradation. However, the activities at the repair events ended up organically inspiring conversations around those exact subject areas. The menders even reflected on how before joining the workshops they would throw a garment away if it ripped or a button fell off. The reasons why they did so were rooted in not knowing how to mend and/or lack of awareness about what could be repaired. Nevertheless, since they started participating

in the workshops they felt they knew more about how to save their garments from the landfills. As can be seen in the following excerpts:

Restorer: "I think I'm particularly conscious now and trying not to buy too much stuff { . . . } It's a necessity (learning to mend). You don't want to go out and buy something new just because a seam has come apart".

Re-doer/recruit: "Its kind of really got me thinking about waste and how much goes to landfill and how much can be diverted and repaired and saved".

Menders even became excited about the feeling of owing a new garment that was generated by the redesign that took shape in their mends. In this way, menders learned about the possibilities of extending the useful life of garments while improving their quality in terms of both better functionality and added aesthetic appeal to the original garments (Figure 5). An example can be seen below:

Recruit: "It makes you feel like you have a lot of new stuff. Because when you mend things you can fix things and change them if you want to change them and you feel more comfortable being able to repurpose things and make something feel new. So [it] makes you feel differently about your clothes. It feels like you are learning something creative and an art almost".
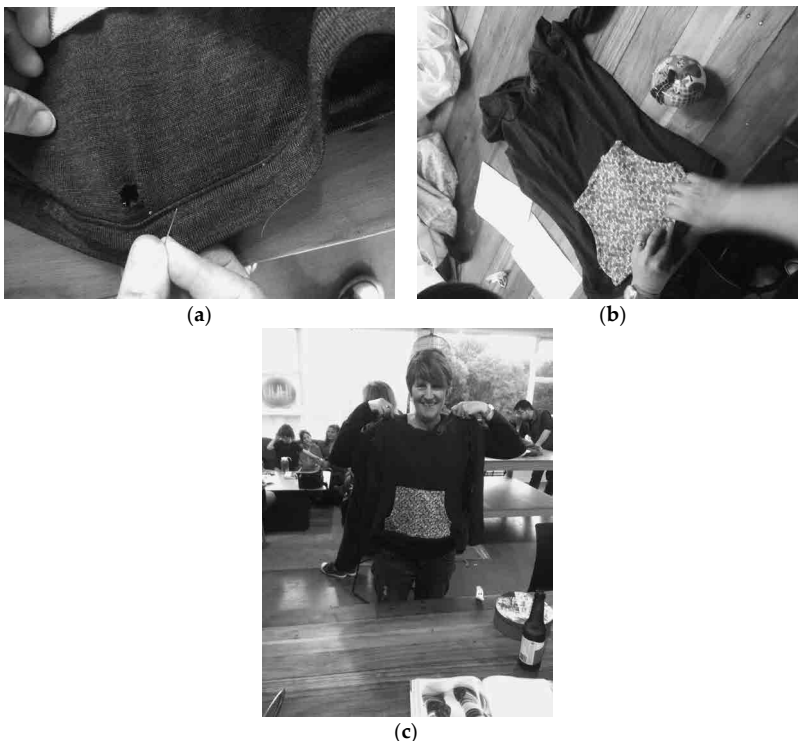

(**a**)

(**b**)

(**c**)

Figure 5. Mender feeling joyful after mending a hole in the garment visibly, resulting in extending its useful life and adding aesthetic quality to it (**a**–**c**), 2017.

Furthermore, another informant even expressed how she had never made the connection between clothing and the environment before the workshops. Her frustrations are well expressed in the following excerpt:

Recruit: "I always think about these things with food waste but I never applied it to my clothes { . . . } I think because cheap fashion is so easy and convenient so it got the better of me. You think what's the point of wasting your time when you can just go buy something new. So I think I've been wrapped up in the fast fashion world { . . . } I've made efforts since to learn about sustainable clothing and you know mending is the way to go because you know these things just sit in your cupboard for years and years and you never fix them and keep buying new stuff".

In such a way, the workshops helped to spur people to think and become aware of the fast fashion web many get caught in. Through mending garments, the menders also learned ways of diverting garments away from trash bins, thereby encouraging them to extend the use of the items they already owned [8]. This was also reflected in the follow-up interviews when they expressed how over time they felt less and less of a need to buy as many new garments as they used. They felt a renewed appreciation for their garments and that the garments had a lot more use left. Seeing the results of their mends not only gave a new life to the garments but also created awareness and knowledge of the possibility of doing so. As seen shared in the following thought in one follow-up interview:

Author: "Have you shopped since the last time you mended?'
Re-doer: "No, just haven't had the need to look for anything and I've become more conscious about the choice of buying versus the choice of repairing. When I think of buying new clothes it almost doesn't excite me anymore because I know I already have clothes at home and if I just mend them up I can even change them and there is no need for it".

Additionally, through their experiences of mending, all menders learned to sense how the quality of the garments had declined over time. Furthermore, material differences between good- and bad-quality garments also became visible. Some shared stories about how the garments they inherited from their mothers or grandmothers or bought during their youth lasted longer than the ones they buy for their own children today. Another point that two menders reflected on in their narrations was the connection between the greater desire to mend if garments are of better quality in the first place, an aspect missing in current buying practices. They explain:

Re-doer: "I think with disposable fashion very few people even know how to sew on a button and also people paid more for their clothes before, so when it broke people wanted to fix it. However, now if you have a hole in [your] jumper it is probably because of bad manufacturing and so this is falling apart in four years but it hasn't been worn that long and they just don't stand up to washing. And most people just chuck it away and buy another one, like this one—it just costs 24 dollars".

Recruit: "When I talked to my mum she bought clothes twice a year because they were so expensive to buy and the clothes were of such good quality because they were handmade. And everything was wool but it was so expensive and it's so different to now. It's like what's in fashion now is not going to be in fashion six months from now { . . . } they just want to make their garments as cheap as possible and they don't care about the quality or who is making it".

Environmental learning was therefore deeply rooted and informed through the sociomaterial lessons learned by the menders and came in the form of learning how to fix objects when they broke, reducing waste by reusing and not disposing, becoming aware of current buying practices, learning to extend the lives of the garments they currently own, learning about quality of garments, learning to care for and better maintain garments and learning to slow down consumption and resource dependencies. The next section will discuss the implications garment-mending workshops have on activating pro-environmental change in garment use.

5. Discussion

Reliance on the use of a sociomaterial practice theoretical lens allows for openness and a sharper gauge in exploring alternative learning processes as emerging through everyday practices [17]. Here, knowledge is no longer viewed as residing in the minds of humans, accessible only through

traditional education systems. Rather, it is seen as situated and resulting in participation of not just humans but also non-humans in a sociomaterially entangled world [16–22]. When viewed from this perspective, various forms of knowledge and their potency in shaping the enactments of it become visible. Knowledge and learning is then seen as situated in the material, in the social, in discourse, in the body and in the senses [16,21], all of which result in informing, performing and reforming practices. Through an in-depth study of the dynamic mending practices of every day users, this paper revealed the various forms of learning as they emerged in communal workshops. Building on this, the paper will now shed light on the vital role communal mending practices play in instigating and supporting work within sustainable garment use practices.

5.1. Mainstreaming Mending

Public spaces such as mending workshops are indicative of the advances being made in overcoming negative connotations attached to this practice [5]. Encouraging people to mend leads to the preservation and proliferation of a skill and provides a venue where their visible or invisible mends can be fostered. These workshops play a crucial role in developing feelings of safety whereby people from all walks of life are encouraged to participate in the same practice. By giving mending a public status, these groups are working to address and help fight off conceptions of drudgery, gender and poverty associated with mending [5,33]. People not only learn how to mend but are encouraged to wear their mended garments with pride. Furthermore, people take away knowledge with them that they can share with others in their family. Gwilt [34] notes that users often learn ways to care for garments through their family members. Additionally, many of the first-time participants (recruits and reluctants in particular) who came to the workshops did so after being recommended by a friend or a family member. In this way, supporting Gwilt's claim and indicating the strength of social ties in spreading a practice that may not have been considered otherwise. Moreover, the learned knowledge at workshops can also be applied by users to the restoration of other garments sitting idle in their wardrobes. Activating users in this manner allows for unused garments currently piling up in the wardrobes to be brought back into active use. Additionally, learning to better care for and maintain garments through mending helps to bring value back to a simple yet powerful practice. The practices of these communal workshops are not only helping to provide local sustainable solutions to global ecological problems but are also serving to normalize mending one stitch at a time.

5.2. Empowering Communities and Creating Collaborations

Garment mending in community workshops helps ease people into learning how to mend through and with others. People of varying levels of skills assist one another, enabling newcomers to learn both the techniques and the language of mending. Learning how to talk about the practice, while in practice, helps to create conversations and feelings of connectedness among menders [16,18]. People learn to share resources and care for not only garments but also their communities [35]. Additionally, through their mending practices, users actively learn to fight against fast fashion values of planned obsolescence and extend the life of garments in creative ways. Resources provided by these workshops aid in equipping menders to improve the quality of their existing garments, creating self-reliant individuals and empowered communities. Platforms such as these help in reframing perceptions of users from passive recipients of information or products to active citizens engaged in bolstering change. At the same time, pointing to renewed roles for designers as facilitators of change, rather than its sole author [26]. Gwilt [4] suggests the possibility of new business opportunities that can be explored by small and/or medium sized fashion design labels by incorporating mending as a service into their practice. However, what is important to keep note off is, if mending is to be encouraged as a regular practice, businesses must not charge for it. For this to take shape, policy-driven Extended Producer Responsibility (EPR) [36] programs can be formulated making free repair services mandatory while offering subsidies or tax-cut incentives to small or medium sized brands that do so. In this way, financially supporting the smaller brands and diverting foot traffic away from the big brands to the

smaller one. Provision of such services could also increase customer loyalty and provide support to the local economy.

Moreover, having a permanent space for mending activities is vital as it further solidifies these groups as the regularity of the practice is built [17]. Although pop-up mending events help to cover more areas geographically in a city, they are often unable to create communal ties of the kind exemplified in the activities of the groups presented in this paper. Therefore, to give this menders' movement a strong hold, permanent locations are needed to nourish these activities and spread them further. Policies could then be drafted that take account of the importance of space and help support and spread such initiatives in the future. When viewed from such a lens, venues such as communal mending workshops are no longer overlooked as recreational clubs for hobbyists but can be seen as potent grounds for catalyzing change. Therefore, when formulating policies targeting user practices a bottom-up approach can be sought whereby groups such as these can work in collaboration with local businesses and institutional bodies to systemically inform policy directives aimed at reaching social, ecological, and economic sustainability goals.

5.3. Sustianble Sensibilities

Communal workshops encourage participants to live sustainably and reject the make-take-waste paradigm of the fast fashion industry, transforming their consumer practices. Such workshops thus represent a means of systemically accelerating transitions towards positive social and environmental practices. As people work on their mends, their sensitivity to materials improves, allowing them to better identify and differentiate between bad- and good-quality garments. This could potentially create mindfulness around the importance of buying better quality garments to keep them in use for longer. Moreover, it was seen that the time invested in mending leads to a better appreciation of the garments, thus opening possibilities for creating connections between people and their clothing. Through these activities, people learn how to mend, gain a sense of how to adjust mends based on material qualities, how to personalize garments, how to bring garments destined for the bin back into use, how to differentiate between durable and non-durable garments, how to increase durability and functionality in aesthetically pleasing ways and how to better maintain their garments. Not only that, they are encouraged to use what they have learned in the workshops to fix other garments in their wardrobes. In such a way, waste minimization is addressed and the knowledge resulting from their shared and lived experiences could assist people to buy less, buy better and care more for the garments they own. The data from this study, therefore, provides indicative evidence in this direction. Additionally, mending garments in repair workshops serves to equip people with not just a technical skill but an approach to living. The processes of mending make and nurture connections with the self, the bodies of others, the material, and the environment. These workshops play an essential role in harnessing alternative ways of learning and using garments consciously. Approaches such as these acknowledge the benefits that reside in collective actions aimed at accelerating pro-environmental change. In such a way, communal workshops help activate users to collectively seek tailored solutions to environmental problems that often seem too daunting to address if left to resolve individually.

6. Conclusions

A sociomaterial practice theoretical lens was used to study the learning processes of non-professional menders in six communal repair workshops in New Zealand. In doing so, three types of learning streams were identified emerging through their mending practices: material learning, communal learning, and environmental learning. The learned outcomes aided in equipping menders with knowledge of how to mend garments using various techniques. This led to awareness on how to better care, maintain and extend the life of garments. In this way, allowing users to learn about alternatives to garment disposal and replacement when met by tears or rips in their clothing. Working frequently and intimately with garments in this fashion also provided them with a sense of differentiating between good- from bad-quality clothing. In this way, helping them to learn about the

importance of quality and aid them in buying better when making future purchases. Furthermore, while working together on their mends feelings of self-reliance and empowerment in communities was also seen.

Through the identified findings the present study contributed to providing insights on the valuable lessons that lie within the humble yet powerful practice of mending. Thus, prompting suggestions for reframing current understandings on knowledge and learning not as an acquired quality but as emergent through participation in the enactments of practices. To not think of change in user practices as coming through linear models that address buying behavior alone or through top-down legislative policy implementation. Instead, focusing on the context in which practices occur yields a deeper understanding of the sociomaterial pathways resultant of those practices. By doing so, a focus on encouraging alternative models of learning, such as those found within communal mending workshops, can be explored further. In addition, existing transitions towards positive social and environmental practices can be accelerated systemically.

Finally, the main limitation of this study is its focus on the user aspect of mending. Therefore, further studies could provide insights on the possible economic opportunities and/or challenges in inculcating free mending services as part of a local fashion brands' business model. Moreover, investigations into the possibility of formulating policy in support of mending events in collaboration with local clothing brands and communal repair groups can be explored. The role of other stakeholders such as local waste management councils, second-hand shops, high-street fashion brands, etc. in pushing this endeavor can also be studied, and its implications measured.

Appendix A

Table A1. Information about menders interviewed for the study. Source: Author.

	Type of Mender	Date	Item Mended	Age	Gender	Occupation	Mending Group
1.	Recruit	10 August 2017	Dress	29	Female	Art Student	On the Mend, Wellington
2.	Restorer	10 August 2017	Coat pocket	28	Male	Architect	On the Mend, Wellington
3.	Re-doer	10 August 2017, 14 September 2017	Hole in jeans	25	Male	Fire sprinkler installer	On the Mend, Wellington
4.	Recruit	10 August 2017, 14 September 2017	Hole in skirt and wool jersey	25	Female	Social media assistant	On the Mend, Wellington
5.	Re-doer	10 August 2017, 14 September 2017	Hole in tights	36	Female	Stay at home mother	On the Mend, Wellington
6.	Restorer	10 August 2017	Frayed jeans	36	Female	University teacher	On the Mend, Wellington
7.	Re-doer	14 September 2017	Hole in cardigan		Female	Social Worker	On the Mend, Wellington
8.	Re-doer-Restorer	14 September 2017	Hole in socks	37	Female	Teacher	On the Mend, Wellington
9.	Restorer	13 August 2017	Hole in dress and broken zipper of jacket	23	Female	Mechanical Engineer	Gribblehirst Community Hub, Auckland

Table A1. *Cont.*

	Type of Mender	Date	Item Mended	Age	Gender	Occupation	Mending Group
10.	Re-doer-Restorer	13 August 2017	Hole in jeans	45	Female	Stay at home mother	Gribblehirst Community Hub, Auckland
11.	Reluctant	13 August 2017	Frayed blouse	35	Female	Industrial design student	Gribblehirst Community Hub, Auckland
12.	Reluctant-Restorer	13 August 2017	Hole in dressing gown	37	Male	Project Manager	Gribblehirst Community Hub, Auckland
13.	Reluctant-Restorer	13 August 2017	Broken zip of pants, hole in sleeve of jumper	34	Female	Stay at home mother	Gribblehirst Community Hub, Auckland
14.	Re-doer	13 August 2017	Hole in jumper	64	Female	Computer programmer	Gribblehirst Community Hub, Auckland
15.	Restorer	10 September 2017	Frayed jumper sleeves	30	Female	Art therapist	Gribblehirst Community Hub, Auckland
16.	Re-doer	10 September 2017	Hole in shorts	50	Female	-	Gribblehirst Community Hub, Auckland
17.	Re-doer	10 September 2017	Hole in bag	31	Female	Journalist	Gribblehirst Community Hub, Auckland
18.	Re-doer	10 September 2017	Hole in cuffs of jumper	45	Female	Stay at home mother	Gribblehirst Community Hub, Auckland
19.	Restorer	10 September 2017	Hole in blouse	-	Female	Museum worker	Gribblehirst Community Hub, Auckland
20.	Re-doer	10 September 2017	Frayed shirt collar	30	Male	Barrister	Gribblehirst Community Hub, Auckland
21.	Restorer	10 September 2017	Hole in slip	60	Female	Retired	Gribblehirst Community Hub, Auckland
22.	Restorer-re-doer	8 October 2017	Undone jumper hem	-	Female	Entrepreneur	Gribblehirst Community Hub, Auckland

Table A1. *Cont.*

	Type of Mender	Date	Item Mended	Age	Gender	Occupation	Mending Group
23.	Reluctant	8 October 2017	Broken zip of jacket	-	Female	Unemployed	Gribblehirst Community Hub, Auckland
24.	Re-doer-Restorer	26 August 2017	Undone skirt seams, undone trouser and dress hem line and blouse slip	21	Female	Sales consultant	Community Recycling Center, Devonport, Auckland
25.	Restorer	26 August 2017	Skirt hem undone	69	Female	Architect	Community Recycling Center, Devonport, Auckland
26.	Recruit-Restorer	26 August 2017	Hole in shorts, skirt zip broken, missing buttons, hole in wool jumper	21	Female	Media agent	Community Recycling Center, Devonport, Auckland
27.	Restorer	26 August 2017	Torn trouser pockets	30	Male	Volunteer at CMRC gardens	Community Recycling Center, Devonport, Auckland
28.	Recruit-Re-doer	26 August 2017	Undone seam of jumper	57	Female	Medical lab assistant	Community Recycling Center, Devonport, Auckland
29.	Reluctant	26 August 2017	Broken dress string	31	Female	Stay at home mother	Community Recycling Center, Devonport, Auckland

References

1. König, A. A stitch in time: Changing cultural constructions of craft and mending. *Cult. Unbound J. Curr. Cult. Res.* **2013**, *5*, 569–585. [CrossRef]
2. Durrani, M. The becoming of repair: Understanding garment mending through a practice theory perspective. In *Eco-Friendly and Fair: Fast Fashion and Consumer Behaviour*; Heuer, M., Becker-Leifhold, C., Eds.; Routledge: Abingdon, UK, 2018; pp. 101–111.
3. Laitala, K. Applicability of social practice theory for sustainable clothing consumption research. In Proceedings of the Global Cleaner Production and Sustainable Consumption Conference, Sitges, Spain, 1–4 November 2015.
4. Gwilt, A. What Prevents People Repairing Clothes?: An Investigation into Community-Based Approaches to Sustainable Product Service Systems for Clothing Repair. *Mak. Futures J.* **2014**, *3*. Available online: http://shura.shu.ac.uk/8125/ (accessed on 1 January 2018).
5. McLaren, A.; McLauchlan, S. Crafting Sustainable Repairs: Practice-Based Approaches to Extending the Life of Clothes. In Proceedings of the PLATE Conference, Delft, The Netherlands, 17–19 June 2015; Available online: http://www.plateconference.org/crafting-sustainable-repairs-practice-based-approaches-extending-life-clothes/ (accessed on 25 November 2017).

6. Middleton, J. Mending. In *Routledge Handbook of Sustainability and Fashion*; Fletcher, K., Tham, M., Eds.; Routledge: Abingdon, UK, 2014; pp. 262–274.
7. *Valuing Our Clothes: The Evidence Base*; A Technical Report for WRAP; WRAP: London, UK, 2012; Available online: http://www.wrap.org.uk/sites/files/wrap/10.7.12%20VOC-%20FINAL.pdf (accessed on 1 January 2018).
8. Fletcher, K. Design, the environment and textiles: Developing strategies for environmental impact reduction. *J. Text. Inst.* **1998**, *89*, 72–80. [CrossRef]
9. Dombek-Keith, K.; Loker, S. Sustainable Clothing Care by Design. In *Shaping Sustainable Fashion: Changing the Way We Make and Use Clothes*; Gwilt, A., Rissanen, T., Eds.; Earthscan: London, UK, 2011; pp. 101–116.
10. Fletcher, K. Durability, Fashion, Sustainability: The Processes and Practices of Use. *Fash. Pract. J.* **2012**, *4*, 221–238. [CrossRef]
11. Hargreaves, T. Practice-ing behaviour change: Applying social practice theory to pro-environmental behaviour change. *J. Consum. Cult.* **2011**, *11*, 79–99. [CrossRef]
12. Gherardi, S. Sociomateriality in Posthuman Practice Theory. In *The Nexus of Practices: Connections, Constellations, Practitioners*; Routledge: Abingdon, UK, 2017; pp. 38–51.
13. Norum, P.S. Examination of apparel maintenance skills and practices: Implications for sustainable clothing consumption. *Fam. Consum. Sci. Res. J.* **2013**, *42*, 124–137. [CrossRef]
14. Schatzki, T.R. Introduction. Practice theory. In *The Practice Turn in Contemporary Theory*; Schatzki, T.R., Knorr-Cetina, K., von Savigny, E., Eds.; Routledge: London, UK, 2001; pp. 1–14.
15. Reckwitz, A. Toward a Theory of Social Practices: A Development in Culturalist Theorizing. *Eur. J. Soc. Theory* **2002**, *5*, 243–263. [CrossRef]
16. Gherardi, S.; Perrotta, M. Between the hand and the head: How things get done, and how in doing the ways of doing are discovered. *Qual. Res. Organ. Manag. Int. J.* **2014**, *9*, 134–150. [CrossRef]
17. Fenwick, T. Sociomateriality and Learning: A Critical Approach. In *The Sage Handbook of Learning*; SAGE: Newcastle, UK, 2015; pp. 83–93.
18. Lave, J.; Wenger, E.; Communities of Practice. *Learning, Meaning and Identity*; Cambridge University Press: New York, NY, USA, 1998.
19. Gherardi, S. Community of practice or practices of a community? In *The Sage Handbook of Management Learning, Education, and Development*; SAGE: Newcastle, UK, 2009; pp. 514–530.
20. Barad, K. *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*; Duke University Press: Durham, NC, USA, 2007.
21. Strati, A. Sensible knowledge and practice-based learning. *Manag. Learn.* **2007**, *38*, 61–77. [CrossRef]
22. Orlikowski, W.J.; Scott, S.V. Sociomateriality: Challenging the separation of technology, work and organization. *Acad. Manag. Ann.* **2008**, *2*, 433–474. [CrossRef]
23. Gherardi, S. *Organizational Knowledge: The Texture of Workplace Learning*; Blackwell: Oxford, UK, 2006.
24. Fenwick, T. Re-thinking the "thing": Sociomaterial approaches to understanding and researching learning in work. *J. Workplace Learn.* **2010**, *22*, 104–116. [CrossRef]
25. Gherardi, S. Situated knowledge and situated action: What do practice-based studies promise? In *The Sage Handbook of New Approaches to Organizational Studies*; SAGE: Newcastle, UK, 2008; pp. 516–527.
26. Durrani, M. *Designers by Any Other Name: Exploring the Sociomaterial Practices of Vernacular Garment Menders*; Accepted for Design Research Society Conference; University of Limewrick: Limewrick, UK, June 2018; forthcoming.
27. Nicolini, D. Zooming in and out: Studying practices by switching theoretical lenses and trailing connections. *Organ. Stud.* **2009**, *30*, 1391–1418. [CrossRef]
28. Clark, A. Situational analysis: Grounded theory mapping after postmodern turn. *Symb. Interact.* **2003**, *26*, 553–576. [CrossRef]
29. Polanyi, M. *Personal Knowledge. Towards a Post-Critical Philosophy*; University of Chicago Press: Chicago, IL, USA, 1958.
30. Flick, U. *An Introduction to Qualitative Research*; Sage: Newcastle, UK, 2014.
31. Braun, V.; Clarke, V. Using thematic analysis in psychology. *Qual. Res. Psychol.* **2006**, *3*, 77–101. [CrossRef]
32. Krefting, L. Rigor in qualitative research: The assessment of trustworthiness. *Am. J. Occup. Ther.* **1991**, *45*, 214–222. [CrossRef] [PubMed]

33. Twigger, H.A. Rethinking the designers role: The challenge of unfinished knitwear design. In *Futurescan 2: Collective Voices*; Britt, H., Wade, S., Walton, K., Eds.; Sheffield Hallam University: Sheffield, UK, 2013; pp. 162–171, ISBN 978-1-907382-64-2.

34. Gwilt, A.; Leaver, J.; Fisher, M.; Young, G. Understanding the Caring Practices of Users. In Proceedings of the PLATE Conference, Delft, The Netherlands, 8–10 November 2017; Available online: http://www.plateconference.org/understanding-caring-practices-users/ (accessed on 2 May 2018).

35. Chapman, J. Repair. Textile Toolbox Online. 2013. Available online: http://www.textiletoolbox.com/research-writing/repair/ (accessed on 2 January 2018).

36. Kerli, K.H. Post-retail responsibility of garments—A fashion industry perspective. *J. Fash. Mark. Manag.* **2014**, *18*, 413–430. [CrossRef]

ORIGINAL RESEARCH PUBLICATIONS

THROUGH THE THREADED NEEDLE

Durrani, M. (2019). Sensed
Attachments: Doing taste in
and through garment mending.
Under review.

Sensed Attachments: Doing taste in and through garment mending practices

Marium Durrani

Abstract:

Drawing on three years of multi-sited ethnographic work in four cities – Helsinki, Auckland, Wellington and Edinburgh – this article explores taste as an effect created in and through the affectivity of sociomaterial practices. The present work reveals how taste is made through the performativity, material affectivity and heterogeneous corporeal experiences mingled within everyday practices of garment mending. In doing so, focus is placed onto the role of the body and the interplay between the sensing body and tactility of materials to show how menders over time construct taste for and form attachments towards their practice. The findings reveal the elaborate procedures and processes that the menders engage in and undertake while maintaining a normative framework of quality control for their practice. As they continuously work with and through the materials and the collective, their decision-making processes are informed by their corporeal experiences. This further led them to discover new ways of mending that they constantly refined over time as they coped with new challenges that continuously arose from being in practice. The article highlights how everyday mending practices are not mindless reproductions of existing ways of doing; they are sensed through the body and reflexively performed in dynamic ways.

Keywords: taste; attachment; corporeal; mending; practice; materiality

Sensed Attachments: Doing taste in and through garment mending practices

Introduction

> Abigail[1]: Before mending these trousers I didn't like them so much, but now this is like somehow *connected to me*.

> Author: Will you continue mending after today?

> Abigail: Yes! Now I got the *taste* of it! (17th January 2017, field work in Helsinki, Finland)

Seemingly ordinary and mundane, mending is anything but a monolithic practice. Touted for its ability to extend the use-time of garments, the practice has only been understood as a lever for addressing unsustainable garment use practices (WRAP, 2012; Gwilt, 2014, 2015; Norum, 2013; Lapolla & Sanders, 2015; McLaren & McLauchlan, 2015). With dominant views problematizing it as a practice of the past (Clark, 2008), scholars have all too frequently focused on identifying barriers to and motivations behind mending (see Gwilt, 2014, 2015; Norum, 2013; Lapolla & Sanders, 2015; McLaren & McLauchlan, 2015). Earlier scholarship has therefore remained limited within the domains of understanding perspectives on mending instead of exploring practices of mending. This has led to under-researching existing practices with an oversimplified depiction of mending as only a functional tool for addressing sustainability. Suffice to say, mending surely plays an integral role in providing a gateway between the old and the new, the broken and the fixed, and the wasted and the restored, yet the practice is much more nuanced than that.

The present article then reveals how by being in the practice of mending, often dreaded and thought of as drudgeries of a household chore, becomes into a much loved object of passion (Hennion, 2004). As menders undertake elaborate procedures and processes to bring forth their practice, they learn to assess and refine its quality. By engaging in practice various sociomaterial negotiations impacting menders decisions on what the right or wrong way of practicing is become known. These negotiations allow them to realize through bodily experiences how best to appraise the quality of their practice whilst also becoming able to communicate it with others (Gherardi, 2009). In other words, non-professional menders make and do taste in and through their practices reflexively and intelligibly. Drawing on and extending Antoine Hennion's (2004, 2007) work, taste here serves as an analytical framework helping to bring focus and give relevance to the practices of 'amateurs' or non-professionals who are not bound by the duty of a profession, but rather engage and continue to remain in practice due to a common passion for it (Gherardi, 2009; Hennion, 2004).

While some might suggest environmental ethics (Laitalla & Klepp, 2018), others have linked *a priori* emotional attachments to garments as key 'drivers' behind fixing clothing (McLaren

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[1] Names of all the informants were changed to ensure anonymity.

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& McLauchlan, 2015; Norum, 2013). This article, however, proposes exploring attachment as a reflexive relationship with 'different intensities and qualities' (Dumont, 2014, p.371) that builds with the practice itself and serves as a passage through which the life of the practice gets sustained. Therefore, how menders become able to not only assess the quality of mending but also actively achieve attachment to practice is then understood through the notion of taste. Hennion (2004), while studying practices of music buffs, defined taste as being both individually and collectively constructed, wherein, through corporeal experiences, practitioners learn their way into measuring the quality of a practice, resulting in a modality of attachments that aid in the making of taste itself (Hennion, 2004). Therefore:

> Taste is not an attribute, it is not a property (of a thing or of a person), it is an activity. You have to do something in order to listen to music, drink a wine, appreciate an object. Tastes are not given or determined, and their objects are not either; one has to make them appear together, through repeated experiments, progressively adjusted. (Hennion, 2007, p. 101)

While a Bourdieusian (1984) conceptualization understands taste as 'something people have (or do not have) rather than something people do' (Bentia, 2014, p. 175). Hennion (2004) works stands in contrast to this, viewing taste instead as a reflexive activity. In accordance with Hennion, various scholars are moving towards this direction where taste is viewed in terms of a form of sensory training or experience. Scholars here examine what gets done rather than said and focus on how the body learns to manage its responses in relation to the material world over time (Hennion, 2004, p. 131; see Dumont, 2014; Bentia, 2014; Mann, 2018; Arsel & Bean, 2012). Against that background, through immersion into the world of communal garment mending – enveloped and entangled in fabrics, measuring tapes and steaming irons with a dynamic group of menders – the present work reveals how taste is done and passion is actively achieved. In doing so, the focus is placed onto the role of the body and the interplay between the sensing body (Strati, 2007) and the materials to show how menders over time learn to discern quality and build an attachment towards their practice. Through the performativity, material affectivity and heterogeneous corporeal experiences mingled within everyday mending practices, the created effect then comes to be understood as taste.

The article builds on three years of multi-sited ethnographic work in communal mending events in four cities: Helsinki, Auckland, Wellington and Edinburgh. Where various everyday users, like Abigail, frequent self-organized repair events, rapidly emerging in most Western countries (see Charter & Keiller, 2019; author, 2018a). By encouraging product longevity through repair, events such as these presently reside outside of market systems and are actively fighting off mainstream ideals of fast fashion practices promulgating a 'throwaway' culture (see author, 2018a; Charter & Keiller, 2019). Though mending is practiced (individually) in domestic settings too (see Laitala & Klepp, 2018), these public spaces provide crucial locations for understanding how taste gets performed (Bentia, 2014), constructed, negotiated and communicated in a collective and individual manner. Through an exploration of menders' sociomaterial entanglements and endless discussions on fabric choices, current and future projects, shared bodily experiences with different techniques of stitching, pattern cutting or threading needles, the article reveals *how menders become able to*

sustain their practices. Practices of these menders thus reveal signs of disrupting existing social and material orders by defying mainstream fashion practices, levelling off the playing field through active engagement in appropriating garments and mobilizing variations in dress practices, whilst becoming attuned to the matter that makes up their clothing. The article thus reveals how everyday mending practices are not mindless reproduction of existing ways of doing but are sensed through the body and reflexively performed in dynamic ways (Gherardi, 2009; Hennion, 2004, p. 131). In providing renewed insights on their practices through taste, this article aims to discuss the useful implications such an approach could also have in facilitating existing mechanisms that drive alternative modes of garment use forward.

2. Methodology

Prior studies on garment mending have not only been single-sited based on one-off workshop experiments (Gwilt, 2014; McLaren et al, 2015; Norum, 2013; Lapolla & Sanders, 2015) but have also lacked in-depth longitudinal analysis of the complexities that bring the existing practice of mending into being (author, 2018 a,b). This article therefore draws on three years (January 2016-June 2018) of my multi-sited ethnographic research on garment mending practices of everyday users situated in communal repair events. Data was collected through field work set in a total of 18 communal repair events in four cities in Finland (Helsinki), New Zealand (Auckland and Wellington) and the United Kingdom (Edinburgh). The accumulated data consisted of 67 in-depth semi-structured interviews with participants and organizers, informal conversations, web research, field notes as informed through my observation and participation, 567 pictures and 15 short video clips.

The ethnographic field work in Helsinki was carried out from November 2016 to June 2017 in eight communal mending events (20 participants, three organizer interviews) with focus on understanding who the menders were, how they performed their practice and what material outcomes resulted through their practices (see author, 2018 b). The results revealed the heterogeneous and creative nature of mender practices through an identification of different styles of mending that often overlapped with other dress-making practices such as patching, embroidery, knitting and so on (see author, 2018 b).

The second site for the field work comprised six communal repair events that took place from August to October 2017 in Auckland and Wellington in New Zealand. The aim was to explore how menders learned their practice whilst identifying material, communal and environmental learning outcomes emerging through mending (see author, 2018 a). In doing so, participant observations were coupled with 33 conducted interviews of participating menders and three of organizers. After this, field work commenced in Edinburgh, the United Kingdom, through participation in four repair events from the end of May 2018 to June of the same year. Continuing on from the first two sites I began contemplating here about how the interplay between menders with materials, and menders with other menders, impacts sustenance of the practice.

With this in mind, the data analysis process then took place in four phases. In phase one I began observing new elements during my one month of field work in Edinburgh that I had

not considered in the previous two sites (Timmermans & Tavory, 2012). I interviewed eight informants (seven participants and one organizer) in Edinburgh. During my interviews and field visits in Edinburgh I took note of how menders approached various objects such as needles, sewing machines, scissors, threads, garments, what variations existed in the ways in which they performed their practices through their bodies, how did various styles of mending impact performance of it, role of sounds from machines on practice and how menders spoke of their practices. In phase-two I cross-referenced these observations with my own experiences of mending my garments in the company of others (Lincoln & Guba, 1986). This resulted in the creation of the following larger themes: sight, sounds, touch, invisible mends, visible mends, sewing machine, hand mending, language (use of descriptive sensuous words), ethics, and quality.

In phase three, and upon my return to Helsinki, I revisited the data I had collected from all three sites, keeping the above mentioned themes in mind. I began reanalysing my notes, the pictures, videos and transcriptions from a total of 67 interviews, re-listening to the audio-recordings and analysing in the present through deep listening (see Revsbæk & Tanggaard, 2015). Finding from analysing the data resulted in clustering it under the above mentioned thematic categories. Doing so enabled me to identify common themes running through all three sites. Such as the role of the collective in developing techniques of a practice, individual training of the senses informing practice, particulars of touching materials, material feedback and how it imprints on the body, the body's receptiveness and response to the material objects, the bodily movement in the ways of mending, sounds from the sewing machine, and use of words to reflect aesthetics/ethics sensed through practice, such as 'good', 'bad', 'beautiful', 'pretty', 'ugly', 'love', 'noisy', 'smooth' and 'rough'. Identification and analysis of these allowed for a deeper understanding on the heterogeneous nature of mending and the variations in the modalities of the taste made (Dumont, 2014), as will be made clear in the upcoming section.

In phase four, thick descriptions (Ponterotto, 2006; Van Maanen, 1988) were written to disseminate the above mentioned themes emerging from the data and to illustrate the finding through three ethnographic snapshots. In continuously dialoguing between literature and my primary research (Timmermans & Tavory, 2012) I was able to classify both more pronounced and subtle aspects of the practice. This then enabled me to see how menders related to their practice, coped with demanding or new aspects of the practice, and whether they connected with their practice or not. All these dimensions are explored in the following section.

3. Elucidating results: Ethnographic snapshots

Self-organized community repair events have been growing at a steady pace since the inception of the Repair Café Foundation (RCF) in the Netherlands in 2012 (Charter & Keiler, 2019). Many operate under the RCF logo while others have taken inspiration from them and work independently of them. Repair events that formed part of my field work in all three sites were not part of the RCF brand. Instead, these consisted of free-of-cost events, organized by local community centres, recycling centres, social enterprises and/or craft activists (see author, 2018 a, b). Apart from the pop-up events in Helsinki where the organizers were

professional fashion or textile designers, the repair events held in Auckland, Wellington and Edinburgh were organized by non-professional textile or fashion designers. Here the events ran on a regular basis, at the same location each time, and had experienced volunteer menders to help with the mends of those participating menders with no fashion/textile background at all (author 2018, a,b). While Hennion (2004) refers to non-professionals as 'amateurs', for the purpose of this research all those with no professional training in fashion and textile design I termed and refer to as vernacular menders (see author, 2018, a,b). Common to all events forming part of this research was the presence of a space equipped with sewing machines, tables, chairs, variety of fabrics, buttons, ribbons, needles, scissors, measuring tapes and other haberdasheries. Additionally, all the events were held during the evening and mostly on a weekend for three to six hours.

Through this section three complimentary ethnographic snapshots then reflect on the sociomaterial, discursive, relational and performative nature of taste as it got made through mending. With the first snapshot I elaborate how normative frameworks of practice are performed and get constantly negotiated in the making of taste. In the second snapshot these negotiations are then shown to be corporeally experienced differently by different menders, insights are provided as these experiences inform the practices of menders. While the final snapshot reveals how by being in practice, ethics often merge with the aesthetics of practice that in turn refine the quality of it resulting in attachments achieved in practice.

3.1 Tips and tricks: negotiations through the rhythms of the thread

During one of my field visits to the Thursday 'Repair Surgery' event hosted by the social enterprise the Remakery in Edinburgh, on 14th June 2018, I found caught in deep conversation amidst the chattering of menders and the whirring of the sewing machines Gale, a refined volunteer mender, and Clarence, a neophyte participating mender. Seated facing a row of sewing machines, they both clutched onto the sheer fabric of a silvery blue moonlight dress that sparkled every time it caught the light. Clarence, a shop assistant at a local store, was describing how she had often passed by the Remakery curiously observing menders from outside the window, but never dared come inside until now, bringing a bag full of clothing with her:

> It's my first time here. I live in the neighbourhood and I've passed by here and I've wanted to come, then I saw on Facebook they have free events on Thursday and it's from 5.30 pm. I decided to give it a try and it has worked well, I've been well welcomed {…} I brought a dress and the bottom of it, the hem, the thread got off of it, and it came undone. The dress is a long shirt. And the colour looks a bit a 70s, which is not really my colour, but it needs to be fixed. Not too sure what to do myself.

Figure 1: Clarence pinning the rolled dress. Figure 2: After pinned the moonlight dress lay still

With Gale, a community worker, by her side Clarence placed her airy garment on the table and pressed it flat; however, moments after she lifted her hand off the dress, the fabric instantly crinkled up and slipped. Clarence repeated the same motion, this time with both her hands, putting pressure on the garment whilst moving in opposite directions, doing the work of a flat iron. Yet the garment continued to form rolls and bends. After pausing for a moment she then carefully began touching the material of the garment. Aided by her haptic motions Clarence soon started to fold up the hem-line while simultaneously reaching for the pins from the pincushion. Once folded and pinned all the way, the garment sat still with more girth this time, thus releasing Clarence from a moment of frustration. As the garment was ready to co-operate Clarence tried it on. After several rounds of readjustments and grazing the fabric with her hands on her body, glancing in the mirror, seeking Gale's opinion, the length of the hem was eventually brought to a place that looked 'good' for a blouse and was ready to be sewn.

In this environment with its clunking of glass button jars being opened and closed, clicks of plugs switched on and snips of scissors cutting fabrics, Clarence had begun her induction into the world of mending and the community of menders. As Clarence sat down, Gale gave her a small piece of fabric. Upon my inquiry Gale began explaining the initial procedures:

> I give them a lot of practice without even threading it (the machine) so that they can understand the mechanism of it {...} we have what we call 'practice sheets' for that. The key is the speed of the foot control (on the machine) and your hand control is based on the speed of the foot control. That's what we focus on the first fifteen twenty minutes. And then, after that we get them to thread it and practice straight lines, then zig zags, so we take them through and that is the point. People who are new, this is where we can encourage them.

Under the watchful guidance of Gale, Clarence soon managed to place the moonlight fabric into the sewing machine and used straight stitches to re-hem the dress. Once it was done, Clarence jubilantly shared:

> It was a very nice experience, a bit stressful because once you press the pedal it goes at a speed out of control but it's very nice to stitch and mend my own clothes. It's a good feeling and it's not as difficult as there was someone next to me showing me and nicely guiding me. I'm very happy with the garment – it's repaired, so it's good. I think maybe I will wear it this weekend!

Seated to the right of them I saw Carl, an avid re-doer and experimenter, sharing tips and his own little tricks with Jake, a minimalist first-time mender, on how 'best' to reinforce denim so that it is strengthened and able to be worn for a longer time:

> Place a tight knot on the inside of the fabric. Some people are very sensitive so it could be a good thing here (pointing to the fabric). There is a space if you put a knot here it will break soon because of friction. So the best place is to put in that area where the jeans is thicker and it won't be harmful or uncomfortable for you.

As I heard these words, while working on tying the knot beneath the belt loops of my own muted grey silk trousers, I too began sensing the shapes and felt the angles that my knots were making in response to the material. I slowly moved closer to them while Carl handed Jake a box full of scrap denim patches and pieces, suggesting a few for him to use. However, Jake continued to rustle through the pile in search of the best fit and selected the one that matched exactly the colour of his jeans. He shared: 'I'm very basic, I'll tell you, I own seven pairs of the same jeans. I own 15 t-shirts of the same colour and I wear that every day!'

Figure 3: Attuning to the shapes of the muted silk belt loops

It was in this struggle to find the exact colour that it became clear how, like me and Clarence, Jake too was negotiating both with the materials and the frame of normativity (Gherardi, 2009), as outlined by Carl. Jake soon after began hand-mending the hole in the in-seam of his jeans and patched the frayed fabric between the inner thighs. As he worked on it, frequently consulting Carl, he began wording his doings:

> I got them (jeans) from Primark. I've had them for about a year. The stitching at the in-seam area came away and there was a lot of wear between the thighs {…} I certainly would not have thought to put a patch on the hole but I would've thought to close the gap up, like stitches to a wound as opposed to adding extra fabric. But now I know the importance of it – otherwise I will have the same issue. So first I found a piece of fabric that matched the jeans and then I cut out a section of that fabric to fit the shape of the damaged fabric. And then sketched out the shape of the damaged area and used that to cut the fabric down to size. Then I threaded the needle and began slowly stitching around the patch in order to secure it to the trousers. I thought I could throw out this pair and get another but then I thought I might as well learn how to fix. Because learning will translate to other things as well, like I have a jacket whose button keeps falling off because I haven't been sewing it well enough, but now I can!

Tips and tricks like these are often shared (Hennion, 2004), appraisals are made, garments are appropriated and the reluctant novice can be seen to be learning slowly and steadily through their performances. While Carl and Gale may have guided Jake, Clarence and other menders by giving various suggestions without which they might not have been able to learn the ropes (author 2018, a, b). Both Jake and Clarence too found their way to the mend that best fit their existing wardrobe. Therefore, like an expert mender, the novice mender too keeps finding new ways of mending. With every new discovery of doing mends, new challenges are presented and the individual keeps getting trained and copes accordingly. Comparisons continue to get made while constructing taste towards the common 'object of passion', i.e. mending (Hennion, 2004).

Figure 4: Sharing tips and tricks on the 'best' ways to mend

Menders come up with creative solutions to problematic garment breakdowns through performing their ways of mending. It is a safe place for experimentation, for challenging the limits of garments, for reconstructing, redesigning, repurposing clothing through repair. Some may only come to have the 'work done' and leave, but most sit, talk, reflect and sense through their mends. Collectively they construct significance for, give relevance to and constantly reframe the practice of mending and their garments. According to Hennion (2004), 'taste is a most efficient "group maker"'(Hennion, 2004, p. 6), meaning, an activity that is achieved through a collective which provides a quality framework and validates the practice, thus making it relevant, and gives guidance, thereby providing a starting point for a first-timer like Clarence or Jake to begin and giving words to the practice (Gherardi, 2009). This does not mean that it is an imposing structure; rather, the beginner is provided with sociomaterial referents by turning to the more expert menders. Taste, then, becomes mutually constructed over time and is 'a collective, emergent discursive process that constantly refines practices, and which is done by saying and which is said by doing' (Gherardi, 2011, p. 536).

The collective nature of taste enables making visible the interplay that occurs between the individual, the material, and the social, and the lines between what a professional can do and a vernacular mender does often become blurred (Hennion, 2004). Menders frequently spend hours discussing the latest books on mending, types of threads or qualities of fabrics to use, while also discussing the importance of elongating use at these events (author, 2018a). A space is thus provided for the practice to unfold organically. Here suggestions get shared, sewing equipment gets fixed, French-knot stitches get used to mend holes instead of simple running stitches. Feelings of belonging can then be felt being shared through the on-going discussions and doings of the collective mending practices (Hennion, 2004; Souza, 2016). It is in these in-between moments where taste gets collectively shared at varying modalities. With regularity, as opposed to one-off mends, menders find a common language through which to share their experiences (author, 2018a) in the midst of collectively working through their hands, sitting in the company of more refined menders, learning together about what is a 'good' mend or what 'works' and what does not (Hennion, 2004).

A normative structure of quality control (Abbots, 2018) can then be seen emerging in and through these on-going practices of menders. Although this normative structure might be reliant on the collective, it is rather porous and fluid, as a constant negotiation between the individual and collective is seen to unfold. As seen vernacular menders do not blindly follow rules, neither do the rules get imposed by strictly following dominating styles of mending. Instead menders find their way reflexively in the space between fabric and finger. There is relentless negotiation, conversation and new pathways treaded upon, dynamically moulded and merged through the individual and collective mingled within the sociomateriality of their practices.

3.2 Story of one recruit, her jeans and the sewing machine

The human body is central to any practice. As humans, Gherardi (2011, 2017) notes, we are bodies and we have bodies. Through the complex interplay between the non-humans with the human, the body senses, copes, responds and mutually reproduces ways of doing. Knowing

how to do something is then not taken to be a possession solely of the brain nor is taste understood to be an attribute of humans or found within an object (Hennion, 2004). With this supposition, taste is seen to be a skill developed over time. It gets co-created and informed through these entanglements between humans with materials and the body is trained to sense and discern the quality of a practice (Hennion, 2004). The centrality of the use of tools together with the slow and extensive manual labour of mending contributes to the taste that is developed for and towards the practice (Abbots, 2018). Additionally, the corporeal experiences of working with machines and mending tool kits, whether pleasant or unpleasant, connect the bodies of the menders to the materials and the practice. What comes out of it is then a garment that contains within it several raw materials, tools and an 'essence' of the mender (Abbots, 2018). Materials and menders do not merely face one another but are entwined together in practice. How this enmeshment of menders with materials, tools, and raw materials mutually aids in informing ways of doing mending is then captured in the following snapshot.

On 17th January 2017, I participated in a mending event arranged by the social enterprise REMAKE in the city of Helsinki. This was held at a local atelier which had three small rooms. Each interconnected room was arranged in a different manner. The main room had a square wooden table placed in the centre, upon which a number of needles, buttons, scissors and other haberdashery were kept to assist in the mend. All of the hand menders were seated around this table talking and mending. In the remaining two rooms were industrial and domestic sewing machines for those who wished to use them. Each machine had a chair placed adjacent to it, along with rolls of fabric standing straight in the corner of the room.

Nestled within the roaring sounds of the machines was Pirjo, a producer and resident of Helsinki. To the workshop she had brought a pair of blue denim jeans that had been worn out in the in-seam area due to friction over time. She began her mend by going through the piles of scrap fabric available to her, in an attempt at finding a piece that fit her current jeans. Rummaging her way through the fabrics she saw, touched, felt, and weighed fabric density through her hands eventually picking the piece that best matched her jeans. Pirjo then began consulting Petra, the head seamstress at REMAKE, on the different ways in which she could fix her jeans. The consultation began with turning the pair of jeans inside out to assess the level of damage that had been done to it and the quality of the fabric. Petra took the jeans in her hands and stroked the surface of the jeans in a grazing motion. Simultaneously she looked at the broken area and followed the direction of the fibres of the garment with both her hand and eyes in a swift motion. Within seconds of her touch, Petra was able to suggest that Pirjo ought to use a sewing machine to fix them. Pirjo had never really used a machine. Soon she made her way towards the machine and sat herself down.

Figure 5: Pirjo's body hunched and crouched over the sewing machine. Figure 6: Experienced menders bodies eased and relaxed with backs straight up.

Once seated, Pirjo placed her foot on the foot pedal and began feeling the cold corners and surfaces of the machine while following where the thread went, wondering how to turn it on and operate it. As Pirjo began using the machine, she found it increasingly challenging to balance the foot and hand control. Struggling to work together with the machine, whilst trying to learn how to read the direction of the fibres of her jeans, her body moved in various ways to accommodate the rhythms of the jeans entangled in the machine. Jumpstarting her way into the process, whilst trying to pivot the garment around, her struggles with the sewing machine became more visible and audible. Tensely shifting her body up and over, Pirjo moved constantly in relation to the shape of the garment as the sewing machine whirred in abrupt stop-start bursts while she handled the fabric. Trying to find a way that did not cause breakage of either the thread or the needle, while getting smooth lines on the jeans with no angled edges, proved challenging for first-timer Pirjo.

As she worked with the machine, her bodily postures continued to change; at some points she leaned in and crouched over the machine (see Figure 5). To this, Petra responded by gently placing her own hand on Pirjo's back to help ease and straighten her posture. Upon Petra's suggestion of keeping at an arm's length from the machine in order to work at the same height with the machine, Pirjo sat up straight. This contact helped Pirjo to manage her body and breathing so that it became in tandem with that of the machine. After using a zigzag stitch to repair the holes in the in-seam Pirjo felt her jeans had been renewed and revamped and ready to be used again. Her experience, as challenging as it was, made her want to continue repairing. As she explained:

> I think at first it was a bit challenging and took a lot of courage to start and I was just realizing how long it took. But Petra was telling me to remember to breathe and loosen my arms and take good care of my posture. Because I was like this (making a crouched up posture) and at the end it was really exciting to see it will come to a

> finished product. It was really great. I will also recommend it to my friends. This is a type of skill one should really learn, it's really useful.

Like Pirjo, several vernacular menders negotiate through their bodies and respond to the sounds and velocity of the sewing machines. While a beginner's body struggles to find comfort in working within this space, those with more experience are able to balance their body, sit upright, and over time learn to get attuned to the rhythms of the machine (see Figure 5-7). As the body opens up to sensing the machine, it recognizes how the machine imprints itself on the body and the body reacts accordingly (Hennion, 2004). Through a repetition of the practice, the roughness that may be observed in the bodies of newcomers becomes less visible in time. These variations in bodily movements' further reflect modalities present within the practice and the subsequent development of the taste for it (Figure 5 and 6). Moreover, objects too change roles whilst in the process of mending. Things like thread and scrap fabric act as band aids and raw materials that get swallowed into the garment and aid in fixing and adding quality to it. The sewing machines and needles in turn act as devices mutually working to co-carry the practice forward and helping to actualize it (Hennion, 2004). These various objects collectively and mutually work together with humans to help in giving the garments a makeover that changes its physical attributes while also cosmetically improving it. The garment's physical life is increased, its symbolic life is reshaped and its aesthetic life is redefined. Furthermore, all these materials are also co-creatively playing a major role in actively acting on the human and helping to create an informative sensorial corporeal experience.

Figure 7: Tensions in the body of a beginner working on his mends.

These corporeal experiences thus aid in building the ability to judge. Whether the judgement is in favour of or against the life of an object is not always known. Through our third and final snapshot we dig deeper into how material feedback furthers menders' ability to assess what is the ugly, pretty, good, bad, right or wrong of a practice resulting in refining, enhancing appreciation for and achieving attachment in practice.

3.3 From assessment to attachment: refining stitches with a cardigan

> I like mending by hand and doing all kinds of stitches – you make a sort of connection. It's lovely when we arrange events to sit around with others and do that (mend). Your hands are busy, you get into a zone and you are talking the whole time. And you feel like this is something we should be doing together. It's a real joy and a creative thing and this cardigan has gone beyond that, they will probably bury me in this cardigan! (Caroline, August 2017, field work in Auckland, New Zealand)

A relationship of reciprocity forms over time through the continuous entanglements of the bodies of menders with the materials. As menders begin sensing and recognizing material feedback, menders learn to discern and respond accordingly. In this way, 'taste depends on feedback from the tasted object, from what it does and causes to do' (Hennion, 2004, p. 7). In each repetitive movement of mending lies both a history of doing but also room for dynamicity. New elements get discovered with every prick of the needle, and new effects are created through the grain of the yarn, the sounds in the event spaces, and the bodies of the menders, all of which assist in the practice, carrying it forward and sustaining it over time. In the following snapshot we see how these tasted objects constantly form, inform the mender, refine their mending whilst impacting the use of garments.

Figure 8: Caroline's cardigan.

In late August 2017, while doing field work in the city of Auckland in New Zealand, I met Caroline, a freelance author and editor for a local magazine. She often participated in the mending events held by the Gribblehirst Community Hub in the city. An avid re-doer, Caroline had been working on the mends of her moth-green woollen cardigan for over ten years. The cardigan came into her possession ten years ago as she was making her way out of her flat. In a rush to leave, she quickly grabbed the cardigan, originally belonging to her husband, from the bottom of her cupboard and pulled it on. Upon first discovering holes in it, she began sifting through the woollen and tapestry yarns she had in her home. Playing around with the colour grading she used primary colours and a combination of chain and lazy daisy stitches to visibly embroider paisleys over the hole. The cardigan soon became a project that she has been working with for ten years. With every new hole came a mend in the shape of a new motif, a cable or a bubble that may have started off as a heart but did not end up as such. As she explains:

> It's kind of my life really now. I'm looking at it – I can already see more holes. I love the little tiny unexpected secrets. And now I only put in things that I know about, that surprise me and are my secret. So this is my early paisley and later paisley (she laughs at the change that occurred). And then I got really into Boro mending that is all in these running stitches and seed stitch. I started adding colour and that started four years ago and is still on-going. I think I mended an elbow, it started from there, then a button fell off there and I did that there. I wear it at work and sometimes on the weekend to go out {…} If I mended it now, I would probably just do the seed stitch and monochromatic.

The combination of colours of the threads, various blogs she occasionally consulted, and what other menders were doing over time enabled Caroline to sensibly recognize where the fabric stressed to what type of stitch and how to create visual balance with different colours of yarns, thus altering her ways accordingly (see Figure 8-10). Starting with lazy daisy she soon moved to seed stitches and most recently to Japanese-inspired Boro mending, changing and refining her ways of mending to mask holes. Through her mends she mixed embroidery with mending, which allowed her to add functionality and flexibility to her cardigan. Moreover, she continuously sophisticated her ways of mending and as she would get dexterous in one way of doing she recognized other aspects of her doings that still needed fine-tuning. She even reflected upon how her history with mending had altered over time:

> The thing I welcome now, in the last couple of years, has been visible mending because when I was taught it was all about no one could tell that it had been mended and you stranded the thread from somewhere inside the seam so no one could see where you darned the sock or patched the jumper{…} Invisible is still challenging for me {…} I'm not a very good finisher – look at the cross, it's pretty rough, but I love it {…} Sometimes I'm annoyed at myself for being sloppy, I'm not a ripper outer, I will keep going with what I have started and learn from that{...} The thing I haven't learned to do is patching and was talking to Sally (another volunteer vernacular mender) and discussing this. I'm going to have to start doing it now because the wool is practically invisible.

15

Figure 9: Roughly mended paisley and bubbles. Figure 10: Refined Boro-inspired visibly mended stitching over time.

To be able to listen to the language of the practice is the very effect of taste that is produced and over time learned from the performances of it (Hennion, 2004). Through time Caroline's mending, like her cardigan, has continuously informed her body and reformed her garment and refined her practice (Ingold & Hallam, 2007). The body became attuned to the object and began to not only recognize the feedback it got from the materials but also learned how to respond back. 'Sensitivity to differences of quality is not given from the outset'; instead it gets made over time and continuously gets refined (Hennion, 2004, p. 8). Taste, therefore, is not a 'social game' but is learned, performed and reformed through time. Creating her taste for the practice, like other menders, developed through a 'sustained tactile relationship' of using the garments through time (Sampson, 2017, p. 342). Yet, once the sense-ability develops the body learns to quickly grasp the connections made with the object and the practice. Therefore, though Caroline is quick to identify which yarn works with what type of stitches, newcomers like Pirjo or Caroline might linger a little longer in their decision making. Yet, common to all is the enactments of the sensed effect created from being entangled to the sociomateriality of mending practices. That is then the catch and clutch of the practice, the attachment to the practice, the effect of participation in a practice, the reflexive strength of the taste discovered through repeated work, through trial and error, through negotiating relationships with the body and the objects, all of which keep the practice going. Exploring these aspects results in constantly refining the ways of doing mends and a movement between rough to refined ways of mending is experienced.

4. Re-framing mending

In various Western countries, recent years have witnessed the emergence of communal repair events working towards normalizing garment mending as a means of addressing wasteful garment disposal practices. In the attempt to challenge wasteful practices of the fashion

industry, new manifestations of an age-old practice abound (author, 2018c). The activities of these menders have further resulted in the creation and emergence of new practices of wearing mended garments with pride instead of being ashamed (author, 2018a). They are challenging not only the cultural-historic connotations of poverty and drudgery attached to the practice (Holroyd, 2016) but are also creating alternative ways to give garments another chance at life. The way people perform everyday mundane activities therefore shows how social and material orders get continuously (re)created from being in practice. Additionally, through engagement in mending, menders become able to identify variations in material qualities, create communal bonds and form understandings on how to better care for their garments (author, 2018a). Moreover, the time spent and invested in fixing garments further allows for a deeper understanding and appreciation of the power of mending to take root.

Existing practices of vernacular garment menders can thus be very revealing when trying to address problems associated with unsustainable use practices. As shown, during the process of working intimately with materials and other menders an active relationship is also formed through the senses, creating a sense of attachment towards the practice of mending and an attunement to the materiality of the garments being mended. This attachment furthers the practices into being, allowing for taste to be reflexively performed, thus helping to sustain the practice of mending. Through repetition and constant re-doing of the mends the practice gets refined and results in an ability to control and add to the quality of the practice. In other words, the more one practices mending, the more one is able to move from being a reluctant novice who is learning the ropes to becoming refined and able to quickly assess through the senses whether a mend is 'good', 'bad', 'ugly' or 'beautiful'. Furthermore, the status of the material, too, is transformed and re-ordered as it is mended. From being at the brink of disposal, it systematically becomes precious and wanted again. Once fixed, the garments become renewed; resulting in menders developing an attachment towards the practice that helped achieved this. While some might be more attached to mending than others, common to all is the active achievement of passion or appreciation for the practice that results from being in practice. The non-static heterogeneous nature of existing vernacular mending thus exemplify how the qualities of taste made in and through their practices vary, as do the intensities of attachments towards their practice. It is these attachments that then help shape taste, which in itself is the glue that holds the practices of menders together (Gherardi, 2009).

This article zoomed in to provide an in-depth ethnographic account of specific processes involved in producing localized configurations of knowledge. Focus was brought onto the grip of the practice, the moments where the practice got performed, informed, reformed whilst continuously getting sustained. An alternative way of understanding users' dress-related practices through corporeal experiences of mending was explored. In echoing the vociferous space vernacular menders have taken the article further revealed how everyday users actively bring forth alternative modes of using garments and partake in fashion. As menders appropriate garments in creative ways, their practices reveal the fluid nature of designed clothing. In this way a new outlook on the role of users as makers of taste and co-authors of their dress was identified and an invitation to explore new arenas for research on

everyday practices of garment use lying outside market environments from which to learn and catch up to was extended.

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References

Author. (2018). a, b, c

Arsel, Z., & Bean, J. (2012). Taste regimes and market-mediated practice. Journal of Consumer Research, 39(5), 899-917.

Abbots, E. J. (2018). Corporeal Crafting: Tastes, Knowledges and Quality Protocols British Cider-Making. In Taste. Law and the Senses Westminster Law & Theory Lab Series, p.111-144.

Bourdieu, P. (1984). Distinction. Translated by Richard Nice. Cambridge, MA: Harvard Univer.

Bentia, D.C .(2014). Sensuous Pageantry: Slow Food Fairs' Alternating Sensory Orders towards Taste Change. The Senses and Society, 9(2), 174-193.

Clark, H. (2008). SLOW+ FASHION—an Oxymoron—or a Promise for the Future…?. Fashion Theory, 12(4), 427-446.

Charter, M, & S. Keiller. (2019). 'Repair cafes: Circular and social innovation' in M. Charter (ed), Designing for the Circular Economy, vol. 1, Routledge, 270-284.

Dumont, G. (2014). Aesthetics of attachments: Reflexive insights on taste construction in climbing. European Journal for Sport and Society, 11(4), 371-387.Geertz, C. (1973). The interpretation of cultures (Vol. 5019). Basic books.

Gherardi, S. (2009). Practice? It's a matter of taste!. Management Learning 40, no. 5: 535-550.

Gherardi, S. (2011).Organizational learning: The sociology of practice. Handbook of organizational learning and knowledge management 2 (2011): 43-65

Gherardi, S. (2017).Sociomateriality in Posthuman Practice Theory. In The Nexus of Practices: Connections,Constellations, Practitioners; Routledge: Abingdon, UK; 38–51

Gracey, F., & Moon, D. (2012). "Valuing Our Clothes: the evidence base." Waste & Resources Action Programme (WRAP). Available online: http://www. wrap. org. uk/sites/files/wrap/10.7 12 (2012).

Gwilt, A.(2014). What prevents people repairing clothes?: an investigation into community-based approaches to sustainable product service systems for clothing repair. Making Futures Journal, 3.

Gwilt, A. (Ed.). (2015).Fashion and sustainability: repairing the clothes we wear. In Fashion design for living. Routledge. pp 61-76.

Hennion, A. (2004). Pragmatics of taste. The Blackwell companion to the sociology of culture, 131-144.

Hennion, A. (2007). Those things that hold us together: Taste and sociology. Cultural sociology, 1(1), 97-114.

Ingold, T, & Hallam, E. (2007). Creativity and cultural improvisation: An introduction. In Creativity and cultural improvisation. Berg.

Lapolla, K., &Sanders, E.B.N. (2015). Using cocreation to engage everyday creativity in reusing and repairing apparel. Clothing and Textiles Research Journal, 33(3), 183-198.

Laitala, K., & Klepp, I. (2018). Care and Production of Clothing in Norwegian Homes: Environmental Implications of Mending and Making Practices. Sustainability, 10(8), 2899.

Lincoln, Y. S., & Guba, E. G. (1986). But is it rigorous? Trustworthiness and authenticity in naturalistic evaluation. New directions for program evaluation, 1986(30), 73-84.

Mann, A. (2018). Ordering tasting in a restaurant: experiencing, socializing, and processing food. The Senses and Society, 13(2), 135-146.

McLaren, A.,& McLauchlan, S. (2015). Crafting sustainable repairs: practice-based approaches to extending the life of clothes.

Norum, P.S. (2013). Examination of apparel maintenance skills and practices: Implications for sustainable clothing consumption. Family and Consumer Sciences Research Journal, 42(2), 124-137.

Revsbæk, L., & Tanggaard, L. (2015). Analyzing in the present. Qualitative Inquiry, 21(4), 376-387. Tellis, W. M. (1997). Application of a case study methodology. The qualitative report, 3(3), 1-19.

Souza, R. K. (2016). Mending as Metaphor: Finding Community Through Slow Stitching in a Fast Paced World. Textile Society of America Symposium Proceedings. 998. http://digitalcommons.unl.edu/tsaconf/998.

Sampson, E. (2018). The Cleaved Garment: The Maker, The Wearer and the "Me and Not Me" of Fashion Practice. Fashion Theory, 22(3), 341-360.

Strati, A. (2007). Sensible knowledge and practice-based learning. Management learning, 38(1), 61-77.

Ponterotto, J. G. (2006). Brief note on the origins, evolution, and meaning of the qualitative research concept thick description. The qualitative report, 11(3), 538-549.

Timmermans, S. &, Tavory, I. (2012). Theory construction in qualitative research: From grounded theory to abductive analysis. Sociological theory, 30(3), 167-186.

Holroyd. T. A. (2016). Perceptions and practices of dress-related leisure: shopping, sorting, making and mending. Annals of Leisure Research, 19(3), 275-293.

Van Maanen, J. (1988). Tales of the field: On writing ethnography. University of Chicago Press.

List of Figures:

ABSTRACT

Commonly associated with times of hardship and austerity, garment mending has come a long way from being a domesticated practice of need to an act of commodity activism. As a backlash to the 'throw away' culture of fast fashion, recent years have witnessed the emergence of various public garment mending events in Western countries. Although academic interest in mending has been growing among fashion researchers, their focus has remained limited to an exploration of *perspectives* on mending in domestic spaces. Through this dissertation a shift is made towards an examination of *processes* undertaken to mend by studying existing off-the-grid mending practices that run parallel to mainstream fast-fashion systems in self-organized communal repair events in four cities. *How the practice of mending comes to matter* is comprehensively investigated through this dissertation.

This study primarily intends to understand, observe and illustrate an alternative conceptualization, by proposing to examine mending as a *sociomaterial* practice. Through identifying humans and non-human or social and material forces as intimately interlaced, this study anchors itself in a pragmatic philosophical paradigm. Building on this, scholarly works that forms part of the umbrella term 'Practice Theories' are used to develop a non-cognitive driven understanding of the practice of mending in a clothing use context. The work draws on three

years of in-depth, multi-sited ethnographic field research in 18 communal garment mending events in: Helsinki (Finland), Auckland and Wellington (New Zealand) and Edinburgh (the United Kingdom), during 2016–2018. Data is gathered through non-participant and participant observations, 67 in-depth semi- and unstructured interviews of event organizers and participants, short surveys, web research, and pictures and short video clips are used as mnemonic support.

First, I strived to understand the practice of mending by identifying the matters of mending (Article 1). Then I used three effects arising from the produced affectivity of sociomaterial practices to explore mending. These conceptual effects were: creativity, learning and taste.

Each effect then provided a framework through which to approach, analyse and understand the performance, learning and sustenance of mending practices. In the first instance, I categorized users as vernacular menders and understood their practices as situated, embodied and routinized, yet dynamic. The analysis revealed how when performing practices, menders methodically organized their practices while simultaneously creatively extending design in use (Article 2). In the second instance, I understood the learning practices of the vernacular menders as being anchored within the sociomateriality of practices rather than resulting from a purely cognitive process.

The learned outcomes were: material learning, communal learning and environmental learning. Through the process of mending, the vernacular menders seemed to learn how to identify variations in material qualities, create communal bonds and form understandings of how to better care for their garments. The findings indicated the potential of informal learning platforms for finding sustainable local solutions to global ecological problems concerning garment waste (Article 3).

In the last instance, the focus was on the role of the body and the interplay between the sensing body and the materials, to show how menders construct taste for and form an attachment to their practice over time. Their mending practices resulted in increasing the physical life, reshaping the symbolic life and redefining the aesthetic life of garments. In this way, people are seen as disrupting existing social and material orders by defying mainstream fashion practices, levelling off the playing field through active engagement in appropriating garments, mobilizing variations in dress practices, attuning to the matters that make up their clothing, while also forming an attachment to their practice (Article 4).

Overall, in taking a non-cognitive approach to the study of mending, this study reveals the practices of menders as not merely reproductive but as dynamic and reflexive. In trying to understand how mending practices are performed, learned and sustained, the study also highlights the broader implications of mending that need attention in the current sustainable fashion discourse. Thus, the study invites future research to explore the practices of vernacular menders and to actively challenge fast fashion dictates towards the practices of caring, inclusivity and stewardship.

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Through the threaded needle presents an in-depth and nuanced discussion on the practice of garment mending. Drawing on rich ethnographic data, mending is traced across four cities to explore what communal garment repair events can tell us about how menders perform, learn and sustain their practice. In bringing forth the complexities laden within the practices of menders, the notion of understanding through an examination of the interlaced and entangled relations between social and material forces is embraced.

As a backlash to the 'throw away' culture of fast fashion, recent years have witnessed the emergence of various public garment mending events in Western countries. Although academic interest in mending has been growing among fashion researchers, their focus has remained limited to an exploration of perspectives on mending in domestic spaces. This work proposes to make a shift towards an examination of the processes undertaken to mend by studying existing off-the-grid communal mending practices that run parallel to mainstream fast-fashion systems. In so doing, the study highlights the broader implications of mending that need attention in the current sustainable fashion discourse and invites future research to actively challenge fast fashion dictates towards the practices of caring, inclusivity and stewardship.

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