

Article

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

Marium Durrani

Department of Design, Aalto University, 00560 Helsinki, Finland; marium.durrani@aalto.fi;
Tel.: +358-465-663-275

Received: 29 April 2018; Accepted: 8 June 2018; Published: 28 June 2018



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 through 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 emphasize 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”.



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".

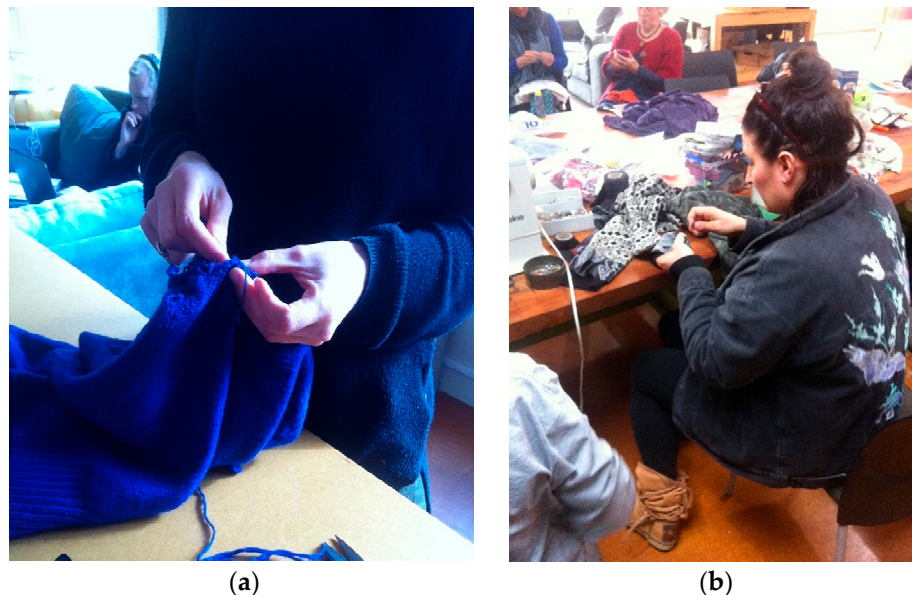


Figure 3. Menders learn how to mend as they work with and through materials and hands to guide them through. (a) Recruit learning to harness her mend through following the grids within the yarn, 2017; (b) Re-doer assessing the strength of the fabric while covering up the hole on the cuff. Gribblehirst 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			
	Material(-ized) learning:	Communal learning:	Environmental learning:
<i>How?</i>	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:
	Garment maintenance	Sharing resources	Waste minimization
	Garment customization	Communicating	Extending garment use
	Garment re-use	Creating connections with others	Buying less
<i>What?</i>	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, uhhh, 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”.



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 owning 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”.



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 reluctant 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. Sustainable 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.

Acknowledgments: I would like to thank the support of Kirsi Niinimäki in reviewing an earlier draft of this paper.

Conflicts of Interest: The author declares no conflict of interest.

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. Kretting, 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]



© 2018 by the author. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).