The Body as the Affective Materiality of Ageing in a Future City

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Abstract

In this article, I discuss the way that the body becomes the crucial socio-material element of ageing in a future city when it is imagined in participatory workshops involving seniors, city officials and researchers and when this joint learning process is analysed through the lens of affect theory. The analysis shows how the materiality of bodies that move between places and with other human and nonhuman bodies adds to the anthropological understanding of ageing as an experienced and cultural phenomenon, as well as the understanding of ageing as a human–nonhuman assemblage. Furthermore, analysing participatory design processes through the lens of affects generates knowledge on how emotions participate in the making of boundaries that are essential when designing not only to cater to senior city dwellers, but also to anyone.

Keywords

ageing, body, smart city, feminist new materialism, affect theory, engaged anthropology, participatory action research

From the perspective of anthropologists studying ageing in Finland, two interesting parallel things happened in the 2010s. First, through legislation, Finnish senior citizens were required to be included in public decision-making and the service design process (Laki 2013), and second, the most recent wave of engaged anthropology began to affect Finnish academia (Beck and Maida 2013; Ruckenstein et al. 2011; Suopajärvi 2018). At the intersection of these changes, I both organised and studied workshops to learn with seniors, city officials and a multidisciplinary research group of computer scientists, architects and anthropologists to determine how ageing adults could better participate in the design of public services that are for them (Suopajärvi 2017a, 2018). In this article, I use the word 'senior' to refer to retirees who consider themselves later-stage-of-life citizens and who live independently. In my studies, the youngest participants were 64 years old and the oldest were 90 years old.

The encounters in the workshops, like any ethnographic encounters, were full of many kinds of emotions. By following Sara Ahmed's

(2014) notion of affect, I look at affects as a significant part of power relations that circulate in and between spaces, as well as between humans and nonhumans; thus, they are not in or owned by an individual. When affects circulate, they move us towards or away from each other (or both). In this movement, we leave impressions on each other, and through these impressions, our collective body starts to take shape (ibid.). In this article, the body refers first to our collaborative design process and second to the socio-material and discursive construction of ageing bodies in our society. To understand how the materiality of the ageing body becomes affective and therefore meaningful in our joint future-making, I rely on both affect theory (ibid.) and feminist new materialism (Barad 2007).

In line with studies on information and communication technology (ICT) and ageing (Buse 2009; Uotinen 2005), my studies have shown that senior city dwellers experience themselves as being in the margins of the smart city (Suopajärvi 2018). In our workshops, most participants, including city officials and even some computer science researchers, acknowledged that e-services were not the best way to increase the participation of seniors; however, they were stuck with the need to incorporate smart technologies in their future imaginings. For the seniors, the socio-material elements of places, such as the location of the home and its distance from the healthcare centre or bank office, or the size of the grocery stores, were more important. They also hoped to encounter other kinds of humans in places that they did not usually go to, such as in opportunities to interact with children and teenagers in schools. These imaginings of the future tell us about how seniors experience their lives today and how some future plans, like digitalisation, are affectively troublesome, while others, like new kinds of encounters in the real world, create hope for them.

From an anthropological perspective, ageing is both a lived everyday experience and a sociocultural phenomenon. Ageing happens in communities, though in many Western cultures, including in Finland, it is nowadays perceived merely as an individual 'project'. For example, policymakers, city officials and also researchers are increasingly focusing on how ageing adults domesticate digitalised services, such as wearable fitness trackers or e-health services (Katz and Marshall 2018; Schwennesen 2019). However, individual experience can never be detached from sociocultural factors, and therefore, social discourses on ageing affect how seniors experience themselves in our societies. This all intertwines with multiple temporalities – pasts,

futures and momentary events – within different spaces (Calasanti and Slevin 2006; Danely and Lynch 2013).

Materiality entangles with ageing in anthropological studies, like in Nete Schwennesen's (2019) recent study on digital rehabilitation assemblages that include ageing bodies. In their ethnographic study, Schwennesen followed twenty ageing Danes who were using smartphone applications to rehabilitate themselves after hip surgery and observed their training sessions, including the conversations that occurred between physiotherapists and patients. Schwennesen analysed this socio-material assemblage using Jane Bennett's (2004) notion of the 'vitality of materiality', which means understanding nonhumans as animate subjects – who act and produce effects. Regarding the discussion about the body, Bennett offers an ontology of the body as a 'fleshy-sensual, lively force', as Schwennesen (2019: 11) describes it. This new materialistic view of the body differs from the understanding of it as merely discursive or an object to which meanings are ascribed (Slevin 2006) by highlighting the 'energetic forces' in which the human and nonhuman are interconnected (Bennett 2004: 367). Similarly to anthropologist Younes Saramifar (2018), who has studied how 'bodies emerge' in autobiographies, my aim is to look at how bodies become meaningful in the socio-material entanglements of ageing in a future city and what kinds of (material) bodies are affective in this becoming.

With an understanding of ageing as simultaneously social and material, especially embodied, I ask *what kinds of socio-material futures become imagined in workshops for ageing citizens in the city of Oulu.* In operationalising feminist new materialism in my thinking, I analyse how ageing bodies, their movements between different places and their encountering of human and nonhuman bodies become significant socio-material elements in these imaginings. Socio-material elements are part of Karen Barad's (2007: 139) new materialist 'performative account of material bodies both human and nonhuman', and looking at (or within) the phenomenon of ageing in a future city means considering how different elements of ageing intra-act in this phenomenon. Intra-action means understanding the elements that make a phenomenon co-constitutive and the boundaries and properties of the phenomenon as being determined through intra-action, though they are simultaneously in a continuous flux (Barad 2007; Haraway 1991).

Furthermore, in my 'being with' the ethnographic material of the workshops, the questions of which socio-material entanglements become affective, as well as how and what the affects do to the

phenomenon of ageing in future city, are equally important. Affects participate in the making of boundaries (Ahmed 2014: 10), and they should be studied by asking how they circulate between different human and nonhuman bodies, how they move and how they stick with certain bodies. Human contact with objects shapes the emotions attached to this contact, which means that objects in general are not the cause of emotions, although they are often read as such (ibid.: 6).

Analysing Affective Materiality in Participatory Workshops

In 2013–2014, I organised four workshops where seniors, city officials and researchers worked together to define good participatory practices for senior citizens when designing public services. The workshops were held almost a decade ago, but I have continued to analyse them to this day (Korjonen-Kuusipuro and Suopajärvi 2022). For this article, I analysed the primary data (i.e. transcripts and video recordings of the discussions) through the lens of affect theory for the first time. Though the world has continued to digitalise throughout the past ten years, the workshops offer fruitful data about the process of collaborative design to create services for senior city dwellers. Furthermore, the ways in which seniors are described and ageing is understood can be appreciated from the data.

Table 1: 'Ageing in Oulu' workshops I–IV

Theme	Date	Place	Method	Seniors (n = 10)	City officials (n = 8)	Researchers (n = 8)
I. Utopia – Oulu in 2030	October 2013	Meeting room on city premises	Discussions in peer groups	7	5	6
II. From Utopia to ideas	January 2014	Meeting room on city premises	Discussions in 'mixed' groups	9 9	2 2	4 4
III. From ideas to practices: Flow of information	February 2014	Meeting room on city premises	Discussion with whole group	8	5	3 + 1 student
IV. Looking forward, and backward	October 2014	Meeting room on city premises	Discussions in peer groups	8	4	4

The seven city officials who were involved in the workshops worked in the departments of Development, Service Design, Urban Planning and Information Services, and the seven researchers came from anthropology, sociology, computer science, information processing science and architecture backgrounds (Suopajärvi 2017a; see Table 1). All except one of the seniors had participated in my earlier ethnographic studies on their ICT biographies and their experiences of urban walks (e.g. Suopajärvi 2015, 2017b). At the time of the workshops, the youngest of the seniors was 64 and the oldest was 90. All six women and four men lived in their own homes, either alone or with their partners, and they had lived all or most of their lives in Oulu. They were all able to move independently, and they were active, with various hobbies and association activities. I refer to all participants using pseudonyms.

The workshops followed the methodology of participatory action research (PAR), which is based on the idea that social change can be accomplished through collaboration and co-learning between different kinds of participants. This was done by identifying the problem together and observing one's own practices in relation to the problem. The goal was to use this process to come up with and implement ideas to transform current dissatisfying practices. The process should be repeated until the problem is 'solved' (Kemmis and McTaggart 2005; Yoshihama and Carr 2002). In the PAR process, participants' relationships and power relations, as well as the main questions, can suddenly change, which means that there is a higher risk of disruptions, even 'failures', than in other qualitative research processes, such as individual interviews (Katila and Meriläinen 2006).

In the first, second and fourth workshops, I divided participants into groups of four to six people to discuss, imagine and make concrete plans (see Table 1). In the first and fourth workshops, these groups included peers, so that there were different groups for seniors, and the city officials and researchers formed their own group(s). In the second workshop, groups were 'mixed' so that they all included senior, city and research participants. At the beginning of each workshop meeting, we first collectively discussed what was going to happen or what we had done earlier (or both), and at the end of each meeting, groups presented their ideas to each other, and these were discussed. The third workshop differed, since the location did not allow us to split into smaller groups. The materiality of places and the assemblage of our group had strong effects on the power dynamics in our workshop, which I have discussed in my earlier studies (see Suopajärvi 2017a, 2018).

In our first workshop in 2013, we imagined what the utopian city of Oulu would look like in 2030 from seniors' perspectives. I chose this method because thinking about the idealistic (near) future tells us what is missing today, what is valued and what is secondary. Consequently, from these discussions, we collectively outlined the central issues that we would address in the following workshops. The issues were a lack of a cross-generational sense of community and a lack of communication between the city and seniors. In the second workshop, we started to plan solutions for the identified problems, which were further reflected upon in the third workshop, in which we discussed how our ideas could be implemented. In the final workshop, we discussed participants' experiences of the workshops and their hopes for the future, especially regarding seniors' participation in public design processes (see Suopajärvi 2017a, 2018). In August 2015, I organised an open seminar to discuss the main results of the workshops. Most of our workshop participants also attended this event.

Analysing workshops from the perspective of affective materiality means that ageing, and how it is part of the imagined future city, have come into being in the tight entanglement in discussions of something that is material, like certain places in the city or certain bodies and their possible encounters, and the expressing of it with affect. This expression of affect is sometimes verbal, such as through sentiments like 'I'm worried' or 'I'd like to live in a beautiful place', but most often it is nonverbal, such as in changes in the tone of the voice expressing frustration, anger or excitement. Affects, or emotions as cultural expressions of affects, can be studied through verbal expressions (Ahmed 2014; Knudsen and Stage 2015). Affect is not about personal emotions; instead, the emotional expressions that come into being, for example, those that appeared during our workshops, reflect larger social affects that stick with certain subject-objects (see Kolehmainen et al. 2022), such as seniors in urban places. In addition, I used the audio recordings (see Lahti 2018) and my fieldwork notes to trace the affects and understand how they come into being with the socio-material elements of human–nonhuman bodies and places entangling with them.

I have especially felt the nonverbal expressions of circulating affects in my body both while reading the transcriptions and listening to the audio recordings (see Lahti 2018). These 'hotspots', as Maggie MacLure (2013a) calls them, glow for a reason, and to understand the impacts of affects in the knowledge-making process on ageing in the future city, I need to follow them in my analysis. MacLure encourages

researchers to grasp the moments in which the boundaries between language and body become blurred, like laughter, tears and silences, and to 'acknowledge those uncomfortable affects that swarm among our supposedly rational arguments' (ibid.: 172). It is our ethical obligation to think with affective hotspots. This does not erase the importance of language or discourse, since MacLure (2013b: 663) claims that 'language is in and of the body', and Gary Levy et al. (2015) add to MacLure's notion that the body can formulate, bend, prevent and extend the matter of language.

In anthropology, emotions have been explicitly studied since the 1980s (e.g. Rosaldo 1984), and during the last decade, anthropologists have started to discuss more the meanings of emotions both in ethnographic fieldwork and analysis (Beatty 2010; Probyn 2010; Skoggard and Waterston 2015). For example, Andrew Beatty (2010) has argued that understanding and discussing the emotionality of experience requires a convincing and detailed narrative of emotions. In this article, I combine Ahmed's and the anthropological notions of emotion with feminist new materialism. Using this lens in an attempt to find an alternative pathway to knowledge creation, I look for 'interruption and inconclusion over consistency and certainty' (Levy et al. 2015: 185). Like Knudsen and Stage (2015) have argued, in the study of affects, research questions should have a 'strong situational specificity', which in this study means focusing on ageing in a future version of Oulu discussed by a particular group of people. Furthermore, they should somehow be connected to the (researcher's) body in specific social contexts (ibid.: 5).

Bodies That Move between Places

Ageing bodies or bodily changes due to ageing were not among the themes we collectively agreed to discuss in the workshops. However, reading and listening to the discussions and their attachments to materiality highlighted the body as a crucial element of ageing in this study. When imagining the ideal city and thus formulating the problems of the current city in our workshops, the question became how seniors with their ageing bodies would be, or were, able to move in their home environment. For the seniors, in the ideal city, the services that they needed most, such as healthcare centres, bank offices, grocery stores, libraries and indoor sport centres, would all be within walking distance. In Finland, ageing adults often move to a 'final'

home, which is located closer to such services, meaning that often, they move into or close to the city or town centre, where younger city dwellers also live, as seniors in our workshop had noticed:

> Hanna: If we start from the current situation, I think the fact is that a lot of retired citizens live in the city centre, and they have moved here because the healthcare centre is close. But now, they're planning to move it so that it won't be close any more. . . .
> Toini: Because we're always gonna need health services, that's for sure, but they must be somewhere where it's easy to go to.

Being able to move and access services offline and independently is emotionally important for seniors. Consequently, in their future imaginings, their bodies became materials that set strict boundaries between themselves and others. These others included both those ageing adults who are not able to move, which could also be them in the future, and even more so, those who might interfere with the seniors' independent mobility by defining them as less competent city dwellers and citizens (see Jiron 2010; Vergunst 2010). This interference had already happened in Oulu, where decision-makers had decided to move the downtown healthcare centre outside of the city centre.

There is affective stickiness in the materiality of a body and in how ageing becomes defined through its ability to move. I previously made the same interpretation based on my ethnographic fieldwork with seniors (Suopajärvi 2017b). The need to underline this stickiness repeatedly suggests that this is an important element dividing people into us and others. Ahmed (2014: 4) wrote that 'emotions operate to "make" and "shape" bodies as forms of action . . . Emotions shape the very surfaces of bodies, which take shape through the repetition of actions over time, as well as through orientations towards and away from others.' In the workshops, others were 'we who are younger', 'we who are in different life situations compared to the seniors' and 'we who did not completely understand because we lacked the same embodied everyday experiences as the oldest and the disabled seniors'. This boundary-making was hard for the city officials and researchers to take seriously and include in their own imaginings. They suggested, for example, that older city dwellers could start picking up rubbish from public places, and could get some reward for this action (Technology Researchers Peer Group, 1. Workshop).

There was a counter-suggestion that one of the seniors came up with while imagining a future city: that the services would come to

everyone's homes instead of people moving around to access them. This possibility was discussed among only one group of seniors, and it was not supported. Although we familiarised ourselves with home deliveries of groceries and medications during the COVID-19 lockdowns in 2020 and 2021, during the workshops in 2013 and 2014, these ideas and practices were uncommon in Finland. The senior suggested that this was an attempt, in many ways, to encourage her peers to think outside the box, but they passed on these ideas and moved to ones that were more familiar to them. This reflects well the PAR methodology, in which seeking compromises is crucial and mutual agreement is the aim.

Small changes that would make seniors' everyday lives both easier and more pleasant were common ideas in these groups. When trying to engage seniors to participate in urban planning and service design, this is an important point: changes must fit into seniors' everyday lives easily (see also Schwennesen 2019; Sokoler and Svensson 2007). Future imaginings that were too drastically different from reality did not have affective stickiness; instead, senior participants moved away from the discussion with amusement. Earlier studies have also pointed out how quickly digitalisation has made ageing adults experience themselves as being left behind, put aside or even marginalised (e.g. Buse 2009; Uotinen 2005). For seniors, the scariest and most unpleasant future imagining is a situation where information is only online and where robots instead of humans take care of elderly patients. This threat of robots was also discussed in our workshops, which made prevalent the affect of disgust regarding the idea of being cared for or touched by nonhuman robots, the surface of the ageing body and the need to protect it (see Korjonen-Kuusipuro and Suopajärvi 2022).

Returning to the topic of mobile services, home deliveries would also mean fewer reasons to move or having to find new reasons and ways to move (see Jiron 2010; Vergunst 2010). Therefore, most senior participants in the workshops supported the imagining in which services would be accessible at a walking distance. For example, they would rather walk to buy theatre or train tickets or run their errands in a bank office than talk to a 'computer on a phone'. However, they noted that the biggest problems affected those ageing adults who did not live close to the city centre. In 2013, Oulu merged with small neighbouring municipalities. This means that a senior who lives 50 km from the city centre and does not have a car or a driver's licence has poor access to the services they need. Travel can even be

somewhat dangerous, as Kaarina had witnessed during a 10 km bus trip from a residential area to the city centre. Kaarina told this story at the beginning of the seniors' group discussion in our first workshop, creating an intensive emotional hotspot (MacLure 2013a). The sorrow and anger circulated both during the workshop and while I was listening the discussion on a tape.

> Kaarina: A few years ago, when I was on a bus, I was actually shocked. The local bank office had closed, and it used to be a place where people could get their pensions. Soon after we had taken off, an old granny, older than me, she had this assistive device. She was moving poorly. She must have walked to the bus stop in the early morning, and we hadn't travelled long when she stood up and asked whether she should exit the bus already because she was going to the bank office. So, we, we were a group of women. I said, 'No, absolutely not', and she stayed standing in the aisle with her device. And then one lady said, 'Do sit down, I will go with you to the bank', expressing that she needed to go herself, and she was going to the city centre anyway. So, the old woman sat down, and they went together. But you could tell from the way she talked that she didn't know what was between her home and the city centre and that the scenery was strange to her. And if she didn't have family members nearby, she had to go to the city centre just to get her pension. And when it's so difficult to move. I felt so bad that the lives of the seniors had been made so difficult because they could not get money to go to the grocery store and pay their bills. Well, you can't pay your bills; you have to pay them at the bank office.

Though Kaarina's story is about her past experiences, her telling it is connected to her criticisms of current and possible future developments where all services are centralised and of how this especially affects older city dwellers. This image of an old woman with a frail body, standing in the aisle of a moving bus and not knowing exactly where she is, is affectively strong. It marks separateness, the opposite of a body that everybody wants to control or take care of; instead, this body is left alone. Through the circulating affects of anger and sorrow, and also of feeling sorry for the woman, the boundaries of the body become clear: the situation involved the othering of the old woman from the other old women on the bus, but it also involved an image of their possible future. The emotions attached to this woman, as well as to many others who were unable to move (well) independently (as discussed during the workshops), divided ageing bodies into those whose body boundaries need to be honoured by supporting their independent moving and those whose bodies should be cared for, but might still be left unnoticed. As a society, we encounter different material bodies of old age via different affects.

Bodies That Move with Other Human and Nonhuman Bodies

In the ideal future city, embodied encounters would be part of everyday lives. Seniors' discussions in the workshops showed that they would like to move with and encounter others physically, both in public places, such as on the streets, where this was already happening, and in new semi-public places, such as schools and youth centres. This became evident, for example, when Elina presented her and her peers' ideas to the other groups:

> We had the idea that seniors could go to youth centres where both age groups should have open attitudes towards each other. . . . We should break the structures that we have built for decades, that seniors are there, and young people are there, and working adults there and the rest there. Finnish society has been built this way for too long.

The workshop participants argued that this would increase their sense of community and belonging, and that those who are unable to move should be included in these encounters, for example, in or in proximity to their own homes. The participants agreed that the Finnish system, especially social services and urban planning, has divided people into their own silos. For example, youth centres are separate from ageing adult community houses and older residents live in their own neighbourhoods.

Being able to move in public places offers opportunities to encounter younger city occupants and other materialities, but these encounters are not always pleasant. In Finland, Oulu is known as the city of cyclists, where people from small children to those in their later life cycle around the year. The city invests in good roads for cyclists, and in the wintertime, when the snowfall can be heavy, the snowploughs clear the main cycling roads efficiently. Therefore, it was not surprising that many seniors in our workshops said that they cycled actively. However, they complained that cycling and walking in the city centre were difficult, mainly because of the different rhythms of the movers (see Vergunst 2010). They said that quicker cyclists shouted, 'Grannies, get out of the way!' Seniors deduced that the main reason was that the city centre was built for cars and there was not enough space for walkers and cyclists to encounter each other in a safe way:

> Pirkko: If we go back to how to move around, for example, I usually cycle, and the cycling roads are terrible in Oulu.
> Matti: But Oulu is the forerunner in cycling.

> Pirkko: Maybe in quantity, but what about in quality?
> Matti: Well . . .
> Pirkko: Yes, there are great cycling routes to the places outside of the city centre, but cycling here in the centre, for example, if you think of the big cities in the world, they have excellent cycling roads in Amsterdam, Sevilla. . . . Of course, the narrow streets have their limitations, but they should put their wise heads together to decide what could be done with it. . . . The problem with cycling is that there's no space.

The problems seniors had experienced while moving were intensely embodied, and together with the materiality of the streets, seniors had become affected by them. Whether something we are affected by is considered beneficial or harmful 'involves thought and evaluation, at the same time that it is "felt" by the body' (Ahmed 2014: 6). The speeding younger cyclists that flash past the other movers who have to, or would like to, move more slowly are felt in the bodies of seniors, but they all need to fit into the same small space. The body, specifically how and with what or whom it moves, is crucial in the experience of ageing: emotions and affects are social and cultural, but they are also in the body – and this should be considered in greater depth in urban planning.

Imagining an ideal future city means imagining future experiences. In our workshops, city officials and researchers talked more about how the aged could meet other humans in certain places than about how to get to those places. The problem of moving between places was not important to them, partly because it was not something they had felt in their bodies. Instead, they were enthusiastically imagining ways for ageing adults, children and teenagers to meet in new places, such as schools, where seniors could go to have lunch, enjoy the performances of pupils or get supervision on using computers:

> We could also think about ageing adults having lunch at schools to increase the teaching of manners in schools and how to take into consideration other people. When the aged have difficulties moving around in schools, children cannot just jump around because they have these older people there; they'd have to consider them. (Tuovi, researcher of technology)

This excerpt is from a group discussion in which seniors, city officials and researchers were coming up with ideas to solve the lack of a cross-generational sense of community, which we had identified in our first workshop as one of the main problems to consider together. All members in this group were excited about this idea, and this comment on different kinds of material bodies meeting or passing by each other

came from a researcher from a more technical discipline. Though in the group discussion no strong affects circulated with this comment, while I was reading the transcripts, I was taken aback by how clearly Tuovi emphasised the materiality of the body. According to this emphasis, the bodies of the aged would fit into the school space because they are slow and stiff, a sort of obstacle for children to run around. This perception of the aged as material objects that others could bypass was present in some other group discussions involving researchers and city officials. Although subtle and implicit, these sentiments were still there. For instance, in the researchers' peer group discussion in our first workshop, Tuovi said, 'With ubiquitous technology, we could easily track seniors. Like when they climb the stairs, go for a walk more than 1 km or shovel snow, they could get points.' To me, this shows the problems associated with designing and making decisions for the aged and the reason that some designs fail: the understanding of the embodied experiences of getting old is not the focus of these processes (see Schwennesen 2019; Suopajärvi 2015).

School lunches were imagined as being offered to ageing adults around the city so that everyone could do this in their nearby schools. Computer supervision would instead occur at a particular school with the right kinds of facilities, but while discussing this idea with all groups, the seniors again pointed out the problem of getting to this particular school. The solution would be a bus that would collect all the ageing adults who wished to participate. Otherwise, seniors were excited about the idea of being with children and youth; the affect of excitement circulated intensively around this idea. However, the seniors seemed to be more excited about encountering other, younger people than about the computers. Though most of these seniors had participated in computer courses and had been active in learning at least basic skills, the increase in e-services or social media was not part of their ideal future city.

Many studies have shown how in the encounters between seniors and ICT, strong affects circulate, and often, these affects are negative (see Hakkarainen and Hyvönen 2010; Korjonen-Kuusipuro and Saari 2021). They also circulate in seniors' narratives of their ICT usage (ibid.), and based on our workshops, they have a strong effect on seniors' ideas of a desirable future. However, our other workshop participants, especially researchers from technical sciences, but also city officials, started their imaginings from a different position: the idea that smart technologies and online services are unavoidable and that the ideal future must be designed accordingly. Therefore,

as a solution to the lack of a cross-generational sense of community, they offered, for example, outdoor games with smart technologies. To address the lack of sufficient information forums, the proposed offline–online combinations. The emotional anxiety associated with ICT and plans to increase its usage in seniors' everyday lives was either left unnoticed, or at least was not put at the centre of the imaginings of the future city.

Conclusion: Ageing as an Assemblage of Affective Human–Nonhuman Bodies

Thinking through the lens of affects and the ways that boundaries come into being with them has made ageing bodies, as well as other human and nonhuman bodies, emerge as significant elements of ageing in the future city of Oulu. The socio-material futures that are manifested in the imaginings of seniors, city officials and researchers were generated around bodies that move independently in the city. To support this movement, the services that the senior city dwellers need must be located within walking or cycling distance, preferably in the city centre where many of them live. While moving, these bodies intra-act with the materiality of the urban space, such as the surface of the streets, but more so with other moving human and nonhuman bodies. The affects associated with these future urban scenes circulate within ageing bodies that are slower and therefore obliged to give way to quicker, younger bodies, faster cars and bicycles. According to the seniors in our workshops, the ageing bodies intend to stay on the move in the future city, since the sense of independence of the aged depends on them and their moving bodies.

Nevertheless, there are other kinds of ageing bodies that will be part of the future city, as the seniors reminded us in the workshops. These are bodies that are (almost) too fragile to move alone or cannot move at all. In addition, these bodies are too far from services and are unable to access them. Though e-services and remote care are offered as a solution to increase equal access, for seniors, this option is associated with the affect of frustration and a fear of robots replacing human caretakers. Other workshop participants did not consider this strong affect as seriously as they should have to succeed in the joint design; they did not see a life without digitalisation as a possibility. Instead, they proposed a smooth transition in which online–offline services would exist simultaneously. As a tool for this, a new

possibility in which seniors and children or youth could engage with each other was imagined, and this encountering of human bodies was warmly welcomed by the seniors. However, while researchers and city officials were excited about this new way to make seniors good citizens of a future city, seniors were excited about a chance to increase their cross-generational sense of community. Though the affect of excitement circulated among all participants, the object of it was different: for seniors, this meant the fading of the boundaries between them and young people; for others, it was about getting through the boundaries with which the aged were protecting their independence. In the ideal socio-material assemblage, seniors would prefer smart technologies to intra-act as little as possible, whereas for other workshop participants, these technologies were one of the main elements within the phenomenon of ageing in the city of Oulu.

The new materialist notions of the inseparability (Bennett 2004) and the performativity (Barad 2007) of human and nonhuman bodies generate knowledge on ageing as an assemblage in which ageing human bodies are understood through their intra-actions with other human bodies, but also with nonhuman bodies, such as robots, bicycles and the distance from home to a needed service. Walking to a health centre or taking a bus to the bank office is an embodied experience that can, on the one hand, strengthen seniors' sense of independence and belonging to the community, in which their needs are considered. On the other hand, not or hardly being able to make this journey signals the opposite: the city and its public services are designed for other citizens – for the younger and more able-bodied. In Finland, independence is highly valued by all generations. Through decision-making and the design of both services and urban places, this can be either supported or hindered. Thinking about the participatory workshops through the lens of affects makes the most significant boundaries emerge, and these have a strong effect on learning and designing. For seniors in our workshops, these boundaries were their own bodies on the move, and they disapproved of the ideas that might decrease this movement. Another bodily boundary was that of those seniors who were unable to move (well) and whose bodies would need human assistance. In this case, the boundary generated was between humans and nonhumans, that is, robots. The third boundary was between the slow and stiff bodies of the aged and the flexible, fast bodies of younger humans.

I followed in my analysis the hotspots (MacLure 2013a) that made me uncomfortable, such as the objectification of older bodies or the

frustration with digitalisation that the seniors expressed both verbally and nonverbally, but the other participants hardly considered. These had strong effects on the focus of my analysis, and I think they should be considered more thoroughly, not only in research but also in participatory design more generally. Following emotional hotspots and understanding them as a significant part of boundary-making could help designers such as urban planners to make more inclusive and more successful designs for the future. Thinking about ageing bodies through the lens of feminist new materialism adds to the anthropological notion of ageing as individually experienced and cultural – material bodies, though tightly intertwined with social discourses, carry knowledge in themselves.

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