Jaana Nummijoki

Breaking New Ground in Home Care Encounters

Shared Transformative Agency between Home Care Workers and their Elderly Clients

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… “to keep the question open and dialogue going on” (Boland, 2001, p. 19)

In memory of my Father, Juhani Nummijoki, whose supportive spirit still infuses my life.
Physical mobility is a central factor in elderly people’s agency in the twilight of life. The loss of elderly people’s physical mobility presents a major challenge for modern society.

To address this challenge, a group of practitioners and experts in the field of elderly care in Helsinki designed and implemented a tool, the Mobility Agreement, to cultivate agency and promote elderly people’s physical capability and mobility. The framework for the Mobility Agreement was developed from 2006 to 2009 as part of a co-operative research and development project on promising practices in home care, funded by the City of Helsinki and led by researchers from CRADLE at University of Helsinki.

The Mobility Agreement provides structured support for the elderly in everyday life during home care visits. It is a plan jointly prepared by the home care client and his or her home care worker to promote day-to-day exercise. The home care worker provides assistance by selecting and monitoring the exercises. When necessary, a physiotherapist or an occupational therapist may be involved. With the introduction of the Mobility Agreement, the focus of the home care staff shifts: less time is spent managing home care duties on behalf of the elderly person, and more time is spent guiding and encouraging the client to exercise regularly.

My study focuses on the encounters of home care clients and workers and the working methods associated with the Mobility Agreement, used to support the clients’ functional capacity and physical mobility. The practical underlying philosophy (Jones, 2007) is to move from doing to people, to doing on behalf of people and eventually to doing with people, in such a way that the elderly client has more opportunity to be in charge and do things him- or herself, but with assistance rather than care.

Qualitative data were collected from two developmental research projects in Helsinki over a six-year period (2006–2012) through observations, video-recordings during the home care encounters, and interviews of home care workers and their elderly clients. I used ethnographic observation, analyzed the dialogues, and tracked indications of the emergence of transformative agency among the participants. This analysis allowed me to conceptualize the adoption of the Mobility Agreement practice as a transformation in which home care workers could recognize and support their elderly clients’ transformative agency, as well as that of their own. This study also addresses the restrictive factors that may prevent the formation of agency.

This dissertation is an empirical, ethnographic and longitudinal formative interventionist study, based on the cultural-historical activity theory (CHAT). Its aim is to generate and support a cycle of expansive learning (Engeström, 2015). The dissertation consists of four empirical articles and a summary that brings them together to present a picture for learning opportunities to break new ground in home care encounters. The study addresses three research questions:

1. What prevents the formation of shared agency in home care?

The results of this study show that defensive learning cycles arise from home care workers’ fear of additional work and new competence demands, and from home care clients’ quest for safety, often crystallized in fear of falling. The formation of shared agency is hampered if the contradiction between the efficiency of the home care worker (doing his or her job) and the potential effectiveness of the home care service (maintaining the functional capacity and reducing social exclusion among elderly people) is not expansively worked out. The introduction of the Mobility Agreement thus becomes a source of frustration rather than a developmental process mediated by a useful tool promoting physical mobility exercises in home care visits.
2. What kinds of learning take place when an agency-fostering new practice is introduced in home care encounters?

Expansive learning takes place when such a new practice triggers the development of an expanded shared object, which allows the home care client and the home care worker to construct shared goals, plans and practices concerning the clients’ functional capacity and physical mobility. This in turn requires new kinds of dialogue and cooperation, as well as reflective interaction between the two separate yet intertwined processes of the home care client’s learning and the home care worker’s learning. In other words, the client and the worker need to understand and commit to an idea of embodied and discursive co-configuration, which includes continuous negotiation between these two parties, and eventually also with other actors who contribute to the client’s overall home care service and wellbeing.

3. What main insights are needed to accomplish a sustainable, agentive transformation process in home care and change the home care script?

These insights require co-configuration work that maintains and supports the elderly person’s functional capacity, postpones frailty, and reduces the risk of social exclusion. The planned and professionally initiated use of the Mobility Agreement succeeds when it connects and merges with client-initiated and incidental uses of artifacts as second stimuli. The expansive use of artifacts is of crucial importance for the quality and continuity of future-making in critical encounters.

The answers given above summarize the findings of my four research articles (Articles I–IV). These articles also illustrate four perspectives of agency and their implications for home care.

Article I introduces a perspective on agency as co-configuration in home care, with new forms of agency generated with the help of the Mobility Agreement. In article II, the key notion is “germ cell.” In supporting physical mobility among the elderly, getting up from a chair emerges as the germ cell, shaped and articulated primarily by means of bodily movements. The new collective concept of sustainable mobility emerges by expansion from the germ cell of the simple movement of getting up from a chair. This new concept has the potential to transcend and overcome the contradiction between safety and autonomy, and to generate a new kind of shared transformative agency.

The meaning of the artifacts (Article III) emerges during critical encounters in which two or more relevant actors come together to deal with a problem that represents both a potentially shared object and a conflict of motives. Artifacts can be used both restrictively, to avoid engaging in the implementation of the Mobility Agreement; and expansively, to initiate and support actions that implement the Mobility Agreement.

Article IV identifies the importance of learning cycles as a perspective on shared transformative agency. Learning emerges as interplay, movement between the expansive and defensive learning actions of the home care client and the worker. Home care encounters have an in-built asymmetry between the potentially powerful practitioner and potentially powerless elderly client. When the learning challenge requires reorientation of both parties, the power relations seem to become much more open-ended and mutable. When the home care worker and the client engage in either a predominantly defensive or a predominantly expansive learning cycle, in many cases it is not at all simple to determine who is teaching or leading, or who is guiding whom.

Shared transformative agency is a key quality of expansive learning. It requires volitional actions from both participants. Mutual volition is at the core of shared transformative agency, defined as breaking away from a given frame of action and taking the initiative to transform it.

Co-configuration requires flexible knotworking in which no single actor has the sole, fixed authority. New forms of work organization in the social and health sector require further research on negotiated knotworking across boundaries in the care of elderly people living at home.

**Keywords:** Home Care, Mobility Agreement, Shared Transformative Agency, Double Stimulation, Expansive learning, Germ Cell
KOHTI UUTTA KEHYTYSVAIHETTA KOTIHOIDOSSA
Kotihoidon työntekijöiden ja iäkkäiden asiakkaiden jaettu muutostoimijuus

Tiivistelmä

Liikkumiskyky mahdollistaa toimijuutta elämän loppupuolella, sen menettäminen ikääntyessä on suuri haaste niin yksilölle kuin nykyaikaiselle yhteiskunnalle.


Tutkimukseni keskittyi kotihoidon asiakkaiden ja työntekijöiden kohtaamisiin sekä liikkumissopimuksen liityvien työmenetelmiin, joita käytetään tutkamaan asiakkaiden toimintaa- ja liikkumiskykyä. Käytännön suunnitellut toimintamalliin taloudellisesta olemassa olevaa filosofiaa (Jones, 2007) on siirtyä tekemään ikäähtmisen kanssa, sen sijaan, että tehdään hänen osuutensa puolestaan. Toisin sanoen siten, että vanhalla ihmisellä on enemmän mahdollisuuksia käyttää omia voimavarojaan ja tehdä asiat itse, mahdollisesti tuottamaan elämän ongelmakossa kohteen.

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Jaetun toimijuiden muodostuminen on estetty, jos ristiriita kotihoidon työntekijän (hänen työnsä tekemisen) tehokkuuden ja kotihoidon potentiaalisen tehokkuuden (toimintakyvyn ylläpitäminen ja ikääntyneiden sosiaalisen syrjäytymisen vähentäminen) välillä ei ole laajasti ratkaistu. Toisin sanoen, mikäli kotihoidon tehokkuuden ja vaikuttavuuden ristiriita pysyy yllä, työntekijät suorittavat työnsä ilman yhteistä, jaettua kohdetta asiakkaan kanssa. Tällöin liikkumissopimuksesta tulee enemmän turhautuminen lähde kuin hyödyllinen työkalu, joka mahdollistaisi liikkumisharjoituksen kautta toimijoiden yhteisen tahdonmuodostuksen ja jaetun toimijuiden kohti asiakkaan liikkumis- ja toimintakyvyn kohentumista.


Edellä annetut vastaukset ovat yhteenvetovoimaisia tutkimusartikkelit (Artikkelit I–IV). Nämä tutkimukseni neljä artikkelia myös avaa uudet oivallukset, joita tarvitaan kestävän, toimijuutta tukevan muutosprosessin toteutumiseen kotihoidossa ja sen käsikirjoitukseessa.
aloittamalla ja toimimalla niin, että liikkumissopimus otetaan käyttöön.


Jaettu muutostojunnus on avainasemassa ekspansiivisessa oppimisessa. Se vaatii molemmilta toimijoilta vapaaehtoisia tekoja. Yhteinen tahto on jaetun muutostojunnan ydin, joka tarkoittaa irrottautumista annetusta toimintamallista ja sen aloitteellista muuttamista.

Yhteiskehittely vaatii joustavaa solmutyöskentelyä, jossa kenelläkään yksittäisellä toimijalla ei ole yhtä ja ainoaa tai pysyvää valta-asemaa. Sosiaali- ja terveysalan uusia, toimialat ylittäviä neuvottelevia solmutyöskentelyn toimintamuotoja - mukaan lukien yksityinen sektori, tulee tutkia syvenemmin kotona asuvien ikääntyneiden tukemiseksi.

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Avainsanat: kotihoito, liikkumissopimus, toimijuus, jaettu muutostojunnus, kaksoisärsytys, ekspansiivinen oppiminen, alkusolu.
I graduated as a physiotherapist in 1984. After working in the Finnish countryside for a couple of years and completing specialized studies in Helsinki, I started my career in the City of Helsinki in 1988 as a physiotherapist and head of department. I worked for almost 20 years as a physiotherapist, and during this time, I often noticed how difficult it was to facilitate the inclusion of regular mobility exercises in the daily lives of elderly people. Often, the support given to elderly people in their daily chores did nothing to discourage them from being sedentary. Despite receiving personal advice on the importance of continuing daily movements and exercise in their own environment, they mainly wanted to sit and be served.

I found myself often thinking that motivation for exercise cannot depend on only the individual and their learning; it must also be connected to the society in which elderly people live. In Finland, the “long life” culture often encourages elderly people to become passive, through a mentality of “they are such old, tired, sick people after working so hard, fighting in the war and paying high taxes. Let them just sit and rest”. This has led caregivers to do things on behalf of elderly people, which effects their activity and frailty, and impacts volition – the capacity to form and implement intentions that go beyond accepted routines and to transform both these and the given conditions of the activity in which they are involved.

My personal interest in the theoretical approach of the Cultural-Historical Activity Theory (CHAT) started already during my master’s studies at Jyväskylä University. I happened to watch Professor Yrjö Engeström’s interview (Blunden, 2002) on TV, in which he explained the principles of CHAT: “CHAT is an approach that tries to expand our notion of what is the proper unit of analysis of such processes as learning for instance, we start to look at who learns in a different way, it is not just individual – something like a functioning activity system which learns.” (Engeström, 2002). Understanding the possibilities of collective learning when looking at agency, i.e. shared agency, was a milestone and a starting point for me, as both a physiotherapist and later on as a home care manager. I began to learn more about the pair, the home care worker and the elderly client, who formed these activity systems.

It was 2006 when Jyrki Jyrkämä awakened me to performative functional capacity, i.e. agency, at a congress on gerontology. Jyrkämä talked about, and in 2007 published, his criticisms of the narrow understanding of the functional capacity of the elderly. His message was: “We should include the social context and the individual’s own life context in which they use their functional capacity.” In other words, we should switch our focus onto the ways in which elderly people actually use, or do not use, the functional resources that are available to them. This change of thinking expands the focus from measurable functional capacity to include experiential, subjective contextual estimates of what is required for daily life, and the expected and available functional capacity to meet these requirements.

At the beginning of 2004 I was asked to join a small group of head nurses on a mission to bridge the gap between home nursing and home services. The combined Home Nursing and Home Services department, called the Home Care Department, was formed in the city of Helsinki at the beginning of 2005, and its interim goal (between 2005 and 2012) was to integrate Home Nursing and Home Services, so that clients could receive holistic service in their home environment which supported their agency.

In practice, this meant that the home help services and home nursing workers who had earlier worked in separate organizations and been led by different management, began in 2005 to work together in home care teams, providing home care for their common clients. The team members visited their clients and began to provide care and services according to the clients’ needs. The home care teams’ task of organizing home visits represented different occupational groups. This new working method resulted in a great learning challenge for both the workers and their leaders (Kerosuo & al., 2009).

1 https://www.suomenfysioterapeutit.fi/physiotherapy/sub-page-1/the-core-competences-of-a-physiotherapist/
2 https://www.greenwoodpt.com/physical-therapy-and-physiotherapy-what-is-the-difference/
3 Recorded 16th January, 2002, at CSAUT, Lancaster University, UK. Processed and edited by LUTV. Uploaded from communication.ucsd.edu/MCA/Paper/Engeström/
I started the University of Helsinki’s doctoral program at the beginning of 2008. The name of the program is Doctoral Program of Psychology, Learning and Communication (PsyCo). Since then, in parallel with my official work, I have been studying as a PhD student at the University of Helsinki, Faculty of Educational Sciences, and the Center for Research on Activity, Development and Learning (CRADLE). My doctoral studies focus on Developmental Work Research and Adult Education.

As part of my work challenges and my studies, I have followed, observed and been involved in the merger of two separate organizational units, Home Nursing and Home Services, from the perspective of the paradigms in the encounters between home care workers and their elderly clients (2005–2012). I have conducted this study as part of a subsequent organizational change, which resulted in the unified Department of Social Services and Health Care, founded in 2013, integrating home care units with hospital, rehabilitation and care services. A great deal has changed during the years of my research. The City of Helsinki’s home care has matured, and co-configuration work within the social services and health care sector has expanded. Nowadays in the Hospital, Rehabilitation and Care Services Division, home care is a big part of the whole activity.

My work as a practitioner and developer-researcher in home care has provided the context of my dissertation studies (the Promising Practices4 and the HETE5 project). From a conceptual and methodological point of view, activity theory and Change Laboratory formative interventions have played a great role in my research. The key theoretical concepts that have informed my inquiries have been expansive learning and shared transformative agency. My publications report analyses of everyday home care work aimed to foster agency formation and sustainable development in the lives of frail, elderly clients.

My study focuses on the interaction between two activity systems, which requires at least a third-generation unit of analysis, as recommended by Engeström (2008), in which two activity systems have a partially shared object. My interest is in learning more about concept formation and the possible conceptual changes in home care. The purpose of my study is to enable a holistic service in the client’s home environment, which may lead to future-oriented “perspectival concepts” (Engeström & al., 2005) or “possibility concepts” (Engeström, 2007; 2009a & b). The collective concept is formed in culturally constituted activities outside the laboratory (Hutchins, 1995). In my study, concept formation occurs in the work activity and is called “home care”.

My study articles (Articles I–IV) were reviewed and published in scientific book and scientific journals in 2010, 2012, 2015 and 2018. My voyage to meet the dissertation requirements encountered challenges and possible conflicts that I carefully managed in order to succeed in my multiple roles of physiotherapist, developer-researcher and home care manager.

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4 The “Preventing social exclusion among the elderly in home care in the City of Helsinki: Development of promising practices” research and development project (2006-2009) was a joint endeavor of the Center for Research on Activity, Development and Learning (CRADLE) (University of Helsinki) and the City of Helsinki Health Centre. Yrjö Engeström was the principal investigator of the project; Jaana Nummijoki was a researcher in the project, and a home care manager.

5 The HETE project was part of Tekes’ “Innovations in social and healthcare services” program (SOTE 2008–2015) and was funded by the Finnish Funding Agency for Innovation Tekes (Project No. 2992/31/2009 “Implementation Conditions of Integration Innovations in Health Care: Organizational Volition and the Voice of the Client”, principal investigator Yrjö Engeström) and the Academy of Finland (Project No. 253804 “Concept Formation and Volition in Collaborative Work”, principal investigator Yrjö Engeström).
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I structured and worked thru all my original publications, the Articles I-IV and this summary as a discussion and conclusion under the supervision of Emeritus Professor Yrjö Engeström and Professor Annalisa Sannino. Therefore, I would like to express my immense gratitude to Yrjö & Annalisa as my supervisors for the last decade. Your dedicated focus on activity theory to address pressing national and international issues and critical contradictions in larger social systems is truly meaningful.

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I would like to express my gratitude to Emeritus Professor Jyrki Jyrkämä, whose work in the field of elderly people and their agency led me to study the everyday aspects of ageing. His notion of agency broadened my horizon from elderly people’s functional capacity and physical mobility to performative agency.

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Suuren suuri kiitos kuuluu Tuomakselle, joka on tempautunut mukaan tieteen tekemiseen - ”näppäimistön ääneen”, missä ikínä liikummeakaan. Ihailen intoasi ja taitojasi omalla, vahvalla osaamisalueellasi, joka haastaa tieteentekijät muistamaan tutkimustulosten siirtovaikutusta käytäntöön. Kiitos, että lähdit kanssani lumelle ja jälle sekä otti minut mukaasi veden äärelle oppimaan uutta.

I especially thank Henrik Ilvesmäki, my son to whom I owe the cover picture of my dissertation. Henrik, I remember you as a school child when your teacher asked what reminded you of your mother and you answered “the sound of the keyboard” while your schoolmates answered about the smell of “pulla” (the scent of a bun). I hope my scientific work inspires you in your career. I really admire you, your enthusiasm to tackle whatever challenges you face, and your commitment and your professional attitude.

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### Abbreviations

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<th>Explanation</th>
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<tbody>
<tr>
<td>ADL</td>
<td>Activities of daily living</td>
</tr>
<tr>
<td>CDA</td>
<td>The home care client whose orientation is dependent and active / “trying and willing to get better”</td>
</tr>
<tr>
<td>CDP</td>
<td>The home care client whose orientation is dependent and passive / “lost and dependent”</td>
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<tr>
<td>CHAT</td>
<td>The Cultural-historical Activity Theory</td>
</tr>
<tr>
<td>CIA</td>
<td>The home care client whose orientation is independent and active / “keeping up”</td>
</tr>
<tr>
<td>CIP</td>
<td>The home care client whose orientation is independent and passive / “losing independence”</td>
</tr>
<tr>
<td>CRADLE</td>
<td>The Center for Research on Activity, Development and Learning / University of Helsinki</td>
</tr>
<tr>
<td>DWR</td>
<td>The Developmental Work Research</td>
</tr>
<tr>
<td>EU</td>
<td>The European Union</td>
</tr>
<tr>
<td>HCC</td>
<td>The home care client</td>
</tr>
<tr>
<td>HCW</td>
<td>The home care worker</td>
</tr>
<tr>
<td>HETE</td>
<td>The project of Implementation Conditions of Integration Innovations in Health Care</td>
</tr>
<tr>
<td>MSAH / STM</td>
<td>Ministry of Social Affairs and Health, Sosiaali- ja terveysministeriö</td>
</tr>
<tr>
<td>ROM</td>
<td>The range of motion around a joint or joints in the body</td>
</tr>
<tr>
<td>SRH</td>
<td>Self-rated health</td>
</tr>
<tr>
<td>THL</td>
<td>National Institute for Health and Welfare</td>
</tr>
<tr>
<td>VALTAVA</td>
<td>1980s reform of the social and social health planning and government legislation in Finland</td>
</tr>
<tr>
<td>WDA</td>
<td>The home care worker whose orientation is “learning to change the old home care script” when making the client dependent and active</td>
</tr>
<tr>
<td>WDP</td>
<td>The home care worker whose orientation is based on “defensive routines and the old home care script” when making the client dependent and passive</td>
</tr>
<tr>
<td>WIA</td>
<td>The home care worker whose orientation is “interactive expertise” when promoting the client’s independence and active</td>
</tr>
<tr>
<td>WIP</td>
<td>The home care worker whose orientation is “tacit expertise” when promoting the client’s independence and passive</td>
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ORIGINAL ARTICLES


In the following summary section of the dissertation, these articles will be referred to by the Roman numbers I–IV. The original publications, articles I–IV are included at the end of this summary of my thesis.
1 Introduction

I completed this study in order to challenge home care clients, workers and managers to consider what opportunities may arise from a new agency-fostering practice in home care. The tension between the need for safety and the craving for autonomy, or more concretely between the fear of falling and the desire for movement, is a difficult primary contradiction in the life activities of frail, elderly home care clients. Correspondingly, the primary contradiction in the activity of home care workers appears as tension between the desire to adhere to the prescribed standard tasks of hygiene, nutrition and medication and the wish to respond to the client’s needs more proactively, activating the clients by working with them rather than doing their chores for them. In this chapter, I introduce the reader to the research topic and the background and focus of the study, provide an overview of the structure of the whole summary of my thesis, and address the research questions.

This research seeks solutions for achieving a sustainable agentive transformation process in the scripted work activity of municipal home care, aiming to create a holistic understanding of elderly people’s transformative agency, share it, and increase its recognition. This study also approaches the restrictive reasons preventing the formation of shared agency in home care in which the worker follows a care plan with specific tasks during the home care encounter.

This dissertation study uses an empirical approach and is conducted as an ethnographic and longitudinal formative interventionist study based on the Cultural-historical Activity Theory (CHAT). It is undertaken in an organization in the context of the home care of the elderly in the City of Helsinki, where I work. In addition to being the author of the study, I am a home care manager, and extrapolate from experience by working on practical issues of concern in the organization and sourcing from home care encounters. I am also a researcher and generate understanding of the kinds of learning that take place when a new agency-fostering practice is introduced in home care encounters.

In formative interventions, the researcher-interventionist provides participants with theoretical and methodological resources to engage in practical experimentations that can lead to generative, novel outcomes, and theoretically mastered concrete developments (Engeström et al., 2016, p. 605). During my learning journey in this longitudinal interventionist research, I tested theoretical and methodological tools based on CHAT, to explore how emerging forms of shared transformative agency and expansive learning can be identified in home care encounters.

In activity-theoretical formative interventions, the learners are the designers of their activity. The collective design effort is part of an expansive learning process that includes participatory analyses and implementation phases. Rather than aiming for transferable and scalable solutions, formative interventions aim for generative solutions that develop over lengthy periods of time in both the researched activities and the research community. Formative interventions generate concepts and novel forms of activity. These concepts can mediate further generative developments. (Sannino et al. 2016, p. 599.)

1.1 Focus of the study

Changes in home care services for the elderly in the public sector of Helsinki received criticism that the way in which changes were implemented in the services did not satisfy elderly people or their significant others. In other words, the efficiency of the home care service was not in balance with the social exclusion of elderly people.

Home Care Nurse Lisa opens Mrs. H’s apartment door and calls to her to come to the door. Lisa greets Mrs. H, goes inside and suggests that Mrs. H take a shower, which

6 The Merriam-Webster dictionary defines “intervention” as “the act of interfering with the outcome or course, especially of a condition or process (as to prevent harm or improve functioning)”. (https://www.merriam-webster.com/dictionary/intervention).
makes Mrs. H start to cry. She stops crying, apologizes and rushes with her rollator to the kitchen where she sits at the end of the table. Lisa washes her hands in disinfectant, goes to the kitchen and starts opening Mrs. H’s plastic medicine bags to arrange her medication doses for the next two weeks. While Lisa is doing this, Mrs. H. talks repeatedly about her illnesses, her last hospital appointment, about her son, and so on. Lisa continues her work on the doses for 30 minutes while Mrs. H just sits and talks. Mrs. H explains how she is not allowed to walk inside the house without her rollator – she has been told by several people that it is too dangerous for her to walk independently.

Mrs. H: “... that I still hope to do some sort of, you know, small walking outside. That would be something I would like to do. I am afraid; to go out of the door, in case it slams on me. When I go with this rollator I’m there, pushing this door and I can’t go without it slamming on me” ... sometimes I forget it (rollator) and then I can walk, yes. Once I forgot it, there, and then I walked to watch TV, there.”

Lisa asks whether Mrs. H would like to go out with a voluntary helper whom Lisa could arrange for her, but Mrs. H refuses by saying – “Me? With some voluntary helper? ... Out? No, not possible!” Earlier in the day, she had made herself breakfast, but now she is waiting for Lisa to wash the dishes. When Lisa has finished the doses, she rushes to wash the dishes. Then she takes Mrs. H’s blood pressure and measures her pulse, twice. The result is good and they are happy. Mrs. H is ready to start waiting for the meals-on-wheels delivery, and the cleaning service is to come the next day. Lisa says goodbye to Mrs. H, collects the garbage bag and leaves. Mrs. H sits in the kitchen beside her rollator. (Home care visit and field note 24.10.2007)
object is restricted to the tasks she is supposed to complete during her visit (Figure 1-1). The client drops several “hints” that she would like to be more mobile.

Being able to respond to the needs of the client requires transformable home care services, which on the one hand successfully manage acute situations properly and on the other hand provide comprehensive rehabilitation – every day, seven days a week. Home care is a link to several service chains, including patient discharge from hospital to their homes. (Finne-Soveri et al., 2006; Finne-Soveri, 2012; Finne-Soveri et al., 2014.) As people are increasingly cared for in their homes for as long as possible, home care employees’ care competence in cases of diseases causing memory loss and in palliative care will be important in the future (Noro et al., 2015).

According to the research of Heikkilä & Mäkelä (2015), international comparison reveals that the quality of services for the elderly in Finland seem to rank midway between good and poor. Many issues have moved in a positive direction since the early 2000s, leaving Finland in a strong position to build exemplary services for the elderly in the years to come – including comprehensive home care. The increasing demand for comprehensive home care services calls for new means to allocate human and capital resources. The role of home care should be clarified and expanded when home care clients need 24-hour care, even if the costs are higher than those in institutional care. (Shepperd et al., 2008; Shepperd et al., 2009; Heikkilä et al., 2014.)

Despite this, home care seems to be fragmented; several actors visit and deliver home care in the same elderly person’s home. In addition to the municipal home care workers, other employees who go in and out of an elderly person’s residence are those from the meals-on-wheels service, the supermarket home-delivery service, the dry-cleaning service and the housekeeping service. When the home care workers encounter their elderly clients, their duties are mainly to help them bathe and/or go to the toilet, to feed and/or give them medication and to inform them of other possible services. The fact that maintaining and improving the physical mobility of the client is not a core part of the daily tasks of home care indicates a contradiction between the immediate efficiency of home care work and the long-term effectiveness of the service: maintaining functional capacity and reducing the social exclusion of elderly people.

Figure 1-1 and the above extract quoted from my data provide a glimpse of how the agencies of the elderly person and the home care worker manifest during their interaction. There seems to be a contradiction between the rules of the home care worker and the needs of elderly people with frail functional capacity and physical mobility suffering from social exclusion. Mobility and functional capacity decline with increasing age, and this affects the most complex and demanding tasks first (Rantanen, 2013). The most urgently needed support usually concerns housekeeping, shopping and food preparation, laundry, using public transportation, taking medication and handling finances.

Sometimes elderly people try to cope with their declining functional capacity by making changes in their ways of doing or the frequency of these tasks, thus avoiding facing manifest difficulties (Rantanen, 2013). If their limited resources could be supported in such a way that would enable them to continue with these daily chores, elderly people’s functional capacity could be preserved for longer, thereby postponing frailty.

Physical mobility promotes healthy aging as it addresses the basic human need of physical movement. For example, walking is an integrated result of the functioning of the musculoskeletal, cardio-respiratory, sensory and neural systems. Sensory deficits such as poor vision and hearing may increase the risk of mobility decline; consequently, the rehabilitation of sensory functions may prevent falls and reduction in mobility. Physical activity counseling, an educational intervention aiming to increase physical activity, may prevent mobility decline among elderly people. Out-of-home mobility is necessary to access commodities, use neighborhood facilities, and participate in meaningful social, cultural and physical activities. To promote mobility, it is not enough to target only individuals, because environmental barriers to physical mobility may also accelerate mobility decline among elderly people. (Rantanen, 2013.) “Use it or lose it” (Cassel, 2002; Rantanen, 2013) is an important and in no way trivial statement about mobility in old age.

Therefore, it is important to find ways to increase or maintain the active physical mobility of elderly people. Actions to prevent mobility decline should be systemically targeted at elderly people who spend even short periods in hospital care. When developing preventive measures and rehabilitation, attention should be paid to not only muscle strength and balance but also to determinants such as visual acuity, reaction time and the...
flexibility of the lower extremity joints. (Sakari, 2014.) An elderly person may have several mobility-related problems, but solving even only one of them may improve opportunities to solve the others. Health care providers as well as family members and other loved ones should work together to optimize opportunities for the elderly to maintain independent mobility for as long as possible (Rantanen, 2013).

According to Niemelä (2006) and Tepponen (2009), home care should focus on providing organized home care services or become the coordinator for the organizations conducting home care service. Either way, it is essential to develop home care in a client-oriented way. The workers in home care should recognize and document their elderly clients’ individual needs by using assessment tools that are relevant from the client’s point of view. (Eloranta 2009, Turjamaa 2014.)

The transformation of home care is constrained by time pressure (Niemelä, 2006), and there is evidence of “haste in home care work, particularly during weekend shifts”, “continuous time pressure” and on weekdays “occasional time pressure”. Tepponen (2009) suggests a model in which an elderly client is treated as a physical, psychological and sociocultural entity living in their environment and coping at home, by maintaining their quality of life and strengthening their remaining resources. The services must be integrated into organizations, networks, policy measures and multi-professional rehabilitative, anticipatory and preventive approaches, utilizing electronic communication.

According to Eloranta (2009), the development of collaboration in home care services faces many challenges, and steps are needed to strengthen clients’ ability to manage their own lives, to promote a more client-driven and goal-oriented approach to care provision, to clarify the roles and responsibilities of professional care providers and to improve methods of communication.

Turjamaa (2014) studied elderly people’s individual resources and the reality in home care. She formed recommendations to promote elderly clients’ ability to live at home through comprehensive home care services. In order to do this, home care professionals should, according to her model, recognize and faithfully document clients’ individual needs by using assessment tools based on the client’s point of view. The planning of care and services must take the client’s own perspectives into account. Home care services need to be tailored to take into account the clients’ resources and perspectives of meaningful, inspiring activities and social relationships.

For example, Turjamaa (2014) suggests that municipal home care should consider Jones’ (2007) moving toward doing “with” (in partnership and with the participation of the elderly themselves) enabling people to have more choice and control and to be “in charge”, do things “themselves” but with “assistance” rather than through “care”. Doing things with rather than on behalf of clients may become a dialogue at the organizational level of home care in collaboration with clients and professionals, including discussion on aspects of developing home care services to answer clients’ needs and resources.

Jyrkämä (2007) criticizes the narrow understanding of the functional capacity of the elderly and claims that we should expand it to include the social context within which the functional capacity is used. We should focus on performative functional capacity, i.e., the implementation of functional capacity in the elderly person’s context. In other words, we should switch our focus to how elderly people actually use or do not use the functional capacity resources that are available to them. This change of thinking broadens the focus from measurable functional capacity to also include experiential, subjective and contextual estimates of what is required for daily life as well as the expected and available functional capacity to meet these requirements.

The presupposition of my study is that the current way of conducting home care needs to go further than merely recognize elderly people’s individual agency as a relatively stable condition. Transformative agency goes beyond the situational here-and-now actions as it emerges and evolves over time, often through complex debates and stepwise crystallizations of a vision to be implemented (Engeström & Sannino, 2013). Transformative agency develops the participants’ joint activity by explicating and envisioning new possibilities; it goes beyond the individual as it seeks possibilities for collective change efforts (Engeström et al., 2014). Shared transformative agency (Virkkunen, 2006a) manifests when participants search together for a new form for the productive activity in which they are engaged. In home care, this manifests as shared transformative agency between the home care worker and the client.
This dissertation study breaks new ground in home care encounters by highlighting the shared transformative agency in mobility-related interactions between home care workers and their elderly clients, based on evidence that physical mobility is a central factor for elderly people’s agency in the twilight of life.

During the interaction of a home care appointment, the agency of both the home care client and the caregiver influence each other as these agencies encounter each other in the receipt and provision of home care services. The topic of my research concerns the internal contradiction in the home care of the elderly in the City of Helsinki, which seems to demand reconceptualization. I analyze the transformation effort as a process of expansive concept formation at work (Engeström & al., 2005).

I study these encounters from the perspective of the individual (Jyrkämä, 2007) and that of the quality of interaction between individuals with conflicts of motives (Engeström, 1997; Vygotsky, 1997). My intention is to expose the social practices in the home care site when a new agency-fostering practice is introduced in home care encounters.

Although I am engaged as a researcher and doctoral student, generating understanding and theory in this research work, I am also a home care manager extrapolating from experience (Coghlan et al., 2005: 60) by working on practical issues of concern to the home care organization in the City of Helsinki. The purpose of this study is to contribute to the studies of home care practice, work culture and organization. The study focuses on opportunities to develop a new concept – shared transformative agency – and on the changes in the organization of home care with clients who have reduced functional capacity.

This research concerns the daily life of the elderly in the City of Helsinki, and the home care arranged and provided by the City of Helsinki. The thesis contributes to the City of Helsinki strategy, which aims to develop home care, informal and formal family care, convalescence care, and rehabilitation in order to promote and maintain elderly people’s functional capacity. I pay special attention to the services for the elderly in home care and the skills of the home care personnel and the work teams by developing and supporting continuous learning to support the elderly home care clients’ functional capacity and physical mobility and to prevent falls.

The interest of my interventionist research approach is threefold: Firstly, I am interested in the elderly person’s agency in their role as a home care client. My focus is on the elderly clients’ capacity and willingness to make choices that support their functional capacity and physical mobility. Secondly, my aim is to analyze the home care worker’s agency in their role of home care service provider. I am interested in the workers’ capacity and willingness to adopt new work practices and to adapt their normal routines with a clearer focus on the best longer-term interests of the elderly person in terms of their functional capacity and physical mobility in the practical context of their homes. Thirdly, my focus is on the interaction between these two agencies in the provision and receipt of home care. In other words, I focus on the interdependencies between home care worker and elderly client, and how these interdependencies can affect the agency of the elderly person.

The extract and picture below show one of the home-care visits (17.12.2008, Figure 1-2) in my data. An elderly client and her caregiver are wondering about the main task of home care visits. They make a decision; instead of the home care worker’s list of separate routine tasks to be done “for” her client, they do mobility exercises together so that the client has the opportunity to be “in charge”, “doing herself” but with “assistance” rather than through “care” (Jones, 2007).

367 Home Care Worker: … It’s like, so I’ve been working about six months doing this home care, so it’s kind of been like a given rule: take blood pressure and then you don’t, like, easily start something, like …
368 Client: Do they even tell you what you’re not allowed to do?
369 Home Care Worker: Well, not quite like: don’t do this!
370 Client: Don’t go shopping...
371 Home Care Worker: Yes, so it’s like, we’re not allowed to take money or manage money at all…
372 Client: Manage, yes…
The contradiction between the immediate efficiency of the home care work and the long-term effectiveness of the service may be dealt with by developing an expanded shared object, which allows the home care client and the home care worker to construct shared goals, plans and practices concerning the clients’ functional capacity and physical mobility.

However, doing this requires new kinds of dialogue and cooperation at multiple levels. New dialogues and a new level of co-operation between the home care client and the home care worker are needed. Co-configuration (Victor & Boynton, 1998; Engeström, 2004, 2007b) between a new set of actors – the multiple aged care support agencies that contribute to elderly peoples’ functional capacity and the physical mobility orchestrated by the client and the home care worker – is essential.

The Mobility Agreement describes structured support for the elderly client in their everyday life through home care visits. It is a plan prepared by the home care client and a worker together, and its objective is to promote daily exercise. The shared object of the new tool is to improve the elderly client’s muscle strength, balance and functionality. The home care workers provide assistance and select and monitor the exercises together with their clients. If necessary, the complementary services of a physical therapist or an occupational therapist are available. The Mobility Agreement can be implemented with the help of a booklet (Age Institute?) that contains typical exercises and appropriate ways of conducting them. The booklet contains visual illustrations of the exercises for daily use and supports the implementation of the Mobility Agreement. The Mobility Agreement is recorded in the client’s care plan.

In this concept, the focus of the home care worker shifts from doing home care tasks on behalf of the elderly person to guiding and encouraging them to complete the tasks themselves and to exercise regularly. The

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7 Age Institute, Gymnastics program for the elderly: progressive program with five strength and balance exercises and physical mobility card to monitor stair and outdoor walking tours.
framework for the Mobility Agreement was developed as part of a co-operative research and development project on promising practices (Preventing social exclusion among the elderly through home care of the City of Helsinki). The project was conducted as collaboration between the City of Helsinki and the University of Helsinki in 2006–2009 and was based on the formative interventions method called Change Laboratory (CL) (Engeström et al., 1996; Virkkunen & Newnham, 2013).

Virkkunen (2006a) defines shared transformative agency through the activity-theoretical framework as “breaking away from the given frame of action and taking the initiative to transform it” (p. 49). Transformative agency develops the participants’ joint activity by explicating and envisioning new possibilities during encounters and examines disturbances, conflicts and contradictions in the collective activity. Transformative agency differs from conventional notions of agency in that it goes beyond and seeks opportunities for collective change efforts. (Engeström et al., 2014.)

For the purpose of this dissertation study, I define **shared transformative agency** as developing a shared object that allows participants to construct shared goals, plans and practices to support the client’s functional capacity and physical mobility. The shared tool/instrument created and maintained through mobility-related interactions during home care workers’ and elderly clients’ encounters is called the **Mobility Agreement** (Figure 1-2).

Shared transformative agency can be understood in terms of actions that emerge through negotiation, contestation and collaboration between two parties engaged in a challenging, shared task and object during a home care appointment. Forming a new, expanded object of activity requires questioning and breaking away from the constraints of the existing activity and embarking on a journey across an unfamiliar area (Engeström & Sannino, 2010, p. 7).

Maintaining and improving the physical mobility of the client is seldom at the core of the daily tasks of home care. Because of this, the generative solution, the Mobility Agreement, has to include the transition from object to tool. This means that initially, the home care worker and the client might cooperate on an exercise program (described in the Mobility Agreement) as a shared problematic object and work together to find ways in which to make it function. When the support of the elderly client’s functional capacity and physical mobility begins to take shape as a concrete object, the Mobility Agreement becomes a usable tool. This transition of the new solution from an object to a usable and functional tool/instrument/practice is fundamental and implies that the physical exercises in the Mobility Agreement represent a conceptual core for the expanded object of mobility and functional capacity.

The home care encounter is an event in which two actors come together to deal with a problem that simultaneously represents a potentially shared object and a conflict of motives. Figure 1-3 depicts two activity systems (Engeström, 1999a) interacting in the context of home care. Discovering the shared object in mobility-related interactions between the two activity systems is demanding.
In this study, I demonstrate whether and how this new solution – the Mobility Agreement – can be implemented in the daily practice of home care. This solution is a locally initiated innovation that leads to practical systemic transformation as well as to the development of novel theoretical and methodological research tools (Engeström et al., 2016, p. 605). The implementation of such a solution as a regular element at the core of home care services may present an avenue for the construction of an expanded shared object and new forms of shared transformative agency in home care.

1.2 Research questions

My study explores three main research questions, which relate to the more specific sub-questions in my four dissertation articles (Table 1-1). In this section, I introduce and discuss each research question and briefly explain the articles and their empirical data using specific sub-questions. Through the answers to these questions, I later demonstrate in this summary of my thesis whether and how the shared transformative agency between home care workers and their elderly clients could break new ground in home care encounters.

What prevents the formation of shared agency in home care?

The first general research question focuses on the multiple challenges that home care workers and their elderly clients face during their encounters.

By answering this question, I explore whether the efficiency of the home care worker (doing their job) is in conflict with the potential effectiveness of the home care service (maintenance of functional capacity and reduction of social exclusion among elderly people).

What kinds of learning take place when an agency-fostering new practice is introduced in home care encounters?

My second general research question explores the process of expansive learning, which requires successive shifts of perspective in the critical transitions between design and use, i.e. how the variety and dissimilarity of home care encounters affect the development of the new mobility-related home care script, of which improving the client’s impaired functional ability is an ambitious task.

This question aims to identify the possible directions of learning when contributing to the home care client’s functional capacity and physical mobility with the Mobility Agreement as an element at the core of home care, planned and executed with the support of the home care worker. Instead of automatically generating learning processes, home care encounters might generate contexts in which the formation of agency is actively employed or unemployed to deal with the challenge at hand.
What main insights are needed to accomplish a sustainable, agentive transformation process in home care?

My third general research question tackles the realization of and responses to the challenges the encounters involve, in order to change the home care script. A sustainable transformation process needs interactions and reflective communication between elderly clients and their caregivers, and strong mutual effort to seek the shared object because these interactions usually include critical conflicts, negotiations and volitional change actions. The aim of this question is to clarify the possible change in the work process of home care to allow sufficient time to support elderly clients’ functional mobility and capacity in addition to normal home care duties.

The dissertation articles and specific sub-questions

Article I answers the following sub-questions of my dissertation:
(1) How do the agency of an old person with frail functional capacity and physical mobility, and the agency of a home care worker manifest in their interaction during home appointments?
(2) Do their agencies change as a result of cultivated working practices focusing on the old person’s functional capacity and physical mobility in the practical context?

Article II focuses on the following sub-questions of my dissertation:
(1) Is it possible to identify the germ cell of a new concept of mobility in the practical efforts of home care workers and their clients to integrate physical mobility exercises into the routines of home care services and the client’s daily chores?
(2) How and through what actions do the actors use and develop the germ cell to progress toward the concrete?
(3) What is the role of embodiment and physical enactment and of embodied social interaction in particular, in this process of progressing from the abstract to the concrete?

Article III answers the following sub-questions of my dissertation:
(1) What are the key characteristics of double stimulation in an everyday work activity facing transformations?
(2) What are the actions of volition and the conceptualization efforts in which the home care client and employee jointly participate to implement the Mobility Agreement?

Article IV answers the following sub-questions of my dissertation:
(1) What kinds of learning cycles may be identified in home care encounters charged with implementing the new Mobility Agreement practice?
(2) What kinds of interplay can be detected between the parallel learning cycles of the home care client and the home care worker, respectively?
(3) What are the characteristics of defensive learning?
### 1.3 Structure of the thesis

This dissertation comprises two parts. The first part is a summary consisting of eight chapters as outlined below. The second part contains the four scientific articles published in international journals and books that provide the empirical data of this dissertation. Theoretical and methodological development is conducted in both parts of the dissertation.

The first introductory chapter of the summary introduces the reader to the research topic, including the background and focus of the study, and provides an overview of the structure of the book with the research questions.

In the second chapter, I review the literature describing previous research on home care related to physical mobility and the agency of the elderly, plus the content of the home care in terms of the home care worker’s agency. In this chapter, I discuss the notions of exercise and functional capacity, physical mobility as

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<td>II What kinds of learning take place when an agency-fostering new practice is introduced in home care encounters?</td>
<td>Article 2 Engeström, Y., Nummijoki, J. &amp; Sannino, A. (2012). Embodied germ cell at work: Building an expansive concept of physical mobility in Home Care. Mind, Culture, and Activity, 19(3), 287–309.</td>
<td>1. Is it possible to identify the germ cell of a new concept of mobility in the practical efforts of home care workers and their clients to integrate physical mobility exercises into the routines of home care services and the client’s daily chores? 2. How and through what actions do the actors use and develop the germ cell to progress toward the concrete? 3. What is the role of embodiment and physical enactment, and embodied social interaction in particular, in this process of progressing from the abstract to the concrete?</td>
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<td>III What main insights are needed to accomplish a sustainable, agentic transformation process in home care?</td>
<td>Article 3 Engeström, Y., Kajamaa, A., &amp; Nummijoki, J. (2015). Double stimulation in everyday work: Critical encounters between home care workers and their elderly clients. Learning, Culture and Social Interaction, 4, 48-61.</td>
<td>1. What are the key characteristics of double stimulation in an everyday work activity facing transformations? 2. What are the actions of volition and the conceptualization efforts in which the home care client and employee jointly participate to implement the Mobility Agreement?</td>
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locomotion, and agency based on studies of home care. This chapter looks at several studies that demonstrate that elderly people’s quality of life and daily activities depend on safe physical mobility, and abundant research evidence that indicates that physical inactivity-related functional loss can be prevented by timely detection of physical damage, performing daily activities independently, and activation through physical exercise.

In the third chapter, I discuss the historical development of home care as a context for organizational change in the City of Helsinki, the general hypothesis of this study, and the zone of proximal development. This chapter shows how the organizational development of home care in Helsinki is influenced by changes in the focus of social and health policies concerning people with multiple and chronic illnesses living at home.

The fourth chapter describes the theoretical framework of my dissertation. I present key concepts of CHAT as the theoretical framework for my interventionist study. My study is empirical, and is conducted longitudinally using an ethnographic and formative interventionist methodological approach.

In the fifth chapter, I describe the research sites and data as well as the formative interventionist methodology of my study. This chapter discusses my position as the researcher, the research process and the study design.

In the sixth chapter, I present the central findings from the four published articles and the answers to the research questions of the study.

The seventh chapter includes a discussion and my conclusions. In this chapter, I also look at the development from cycles of learning to orientations in practice, as well as the future demands to shift from dyads to knots, namely co-configurational knotworking.

In the final chapter, Chapter 8, I discuss the limitations of this research from the perspective of research validity; the reliability of the longitudinal, interventionist research approach and my reflections on the research process in the home care of the City of Helsinki.

The original publications, Articles I–IV, come after the eight chapters of the summary. In Chapters 1–8, the articles are referred to using the Roman numbers listed after the table of contents.
2 Previous research on physical mobility and agency in elderly home care

Agency is fundamentally connected to the body, to intentional physical movement and to a human being’s ability to move around.

In this chapter, I review research conducted in home environments in terms of the elderly client’s functional capacity and physical mobility. In this study, functional capacity refers to “functioning” or “functional ability”, meaning the extent to which an individual is able to carry out different activities (Lehto et al., 2017).

I also review studies of elderly clients’ agency: how elderly people actually use or do not use the functional capacity resources that are available to them.

I take into account the notions of exercise, functional capacity and physical mobility as locomotion and agency, based on studies in the field of elderly home care.

This chapter includes studies that demonstrate how quality of life and daily activities depend on safe physical mobility. The research evidence indicates that physical inactivity-related functional loss can be prevented by timely detection of physical damage, performing daily activities independently, and activation through physical exercise.

I discuss the notions of exercise, functional capacity, physical mobility and agency of elderly people mainly in the field of home care. Because of the interplay between the elderly home care client and the home care worker, I also review some studies of the home care worker’s agency. In the fourth chapter, I discuss the theoretical perspectives of agency.

2.1 The home care environment and the elderly client’s functional capacity and physical mobility

“If exercise could be put in a bottle, it would be the strongest medicine money could buy.” (Robert N. Butler, the founding Director of the National Institute on ageing (NIA) of the National Institutes of Health, 1975–1982.)

“Home care” means that a client lives at home most of the time and receives supportive services. The purpose of home care is to enable the client to cope by supporting their functional capacity and agency, especially after illness or disability. Home care includes help with daily tasks, support of social relationships, medical care and nursing. Home care clients are often 75 years of age and over, and have multiple diseases such as cardiovascular or musculoskeletal diseases. Many suffer from moderately severe or severe dementia. (Mäkinen et al., 1998.) In terms of the elderly client’s functional capacity, home care aims to optimize or maximize physical functioning, to prevent or minimize decline in activity of daily living (ADL) function, and to plan for potential transition to independence at home without the need for additional care.

The four major components of strength, endurance, balance and flexibility are typical components of an exercise program. The normal physiology of each component and exercise prescription can be generally outlined as follows:

Strength means the instantaneous maximal force generated by a muscle or group of synergistic muscles at a given velocity of movement. Power describes the force generated and the velocity of movement. Both of these aspects are physiologically dependent on the number and diameter of myofibrils in the muscle cells, on the fiber type, and on the coordination of the neurological elements that control the contraction of the skeletal muscle. As an exercise prescription for the deconditioned elderly and for those who have been established as being at cardiac risk, progressive resistance training (PRT) or some other low-intensity program may be prescribed as seldom as twice weekly, with the use of only body weight as resistance. Exercisers should perform 10 to 15 repetitions per set in each of the major upper and lower extremity muscle groups and three
sets per session for each muscle group. Frequency should then be increased to three to four times weekly in order to improve strength.

Endurance is the ability to maintain a level of exercise over time or to repeatedly perform a task without fatigue preventing further activity. This aspect is rooted in numerous physiologic parameters: air exchange in the lungs, heart function, blood circulation and patency of blood vessels, and the biochemical characteristics of individual muscle cells. Aerobic exercises such as treadmill or street walking, cycling, swimming, dancing and the like can be described as endurance exercise. These may initially be done twice a week for 20 to 30 minutes and increased in accordance with toleration to approximately 30 minutes of moderate-intensity aerobic exercise on most if not all days of the week. Exercisers should be instructed to increase the duration of exercise before increasing intensity. For a deconditioned elderly person or one for whom a home-based program is more suitable, low intensity exercise may be the safest place to start. At this intensity, the patient should complete four to five sessions per week.

Balance and its relationship to falls is a complex feature, and relies on the collective integrity of multiple peripheral and central nervous system components, as a “postural control system”, employing multiple other systems to keep the body upright. Balance training impacts on falls and the development of osteoporosis, for which weight-bearing exercise, including balance components such as weight shifting (e.g. Tai Chi) or postural sway are good forms of exercise training that have positive effects on balance.

Flexibility means the range of motion (ROM) around a joint or joints in the body. The extensibility of many structures contributes to flexibility, including joint articular surfaces and capsules; loose connective tissue around the muscles, joints and tendons; and the physical characteristics of the muscles and tendons themselves. Stretching is a low intensity flexibility exercise and can be performed sitting or lying down, ideally daily. Flexibility exercise may be integrated into strength or endurance training or performed independently. A general recommended prescription is four to five repetitions of approximately 30 seconds each for the main joints and muscle groups. Stretching may be an especially useful warm-up for elderly people with endurance and balance impairments. (Frankel et al., 2006.)

The key objective of Finland’s social and health policy is to find ways for elderly people to survive in their own homes for longer (MSAH, 2008). This objective requires the construction of supportive measures, which take into account the everyday life of the elderly as broadly as possible. For elderly people, living at home requires more than just receiving help and staying alive. Their quality of life, the opportunity to move outside the home and to participate in social activities are also important issues. (Sulander, 2009.)

As Butler (above) commented and Uusi-Rasi et al. (2015) recently proved, exercise improves physical functioning. They witnessed how the rate of injurious falls and injured fallers more than halved among home-dwelling elderly women as a result of strength and balance training (Uusi-Rasi et al., 2015).

These findings are also supported by other evidence: LaCroix et al. (1993), Young et al. (1995), Wang et al. (2002), and Sulander et al. (2005) have proven how people aged 65 and over who regularly engage in physical activities clearly have better physical mobility than those who are sedentary. This connection is so strong that it cannot be explained by only lifestyle choices and chronic diseases. People with limited physical mobility can avoid the development of functional impairment through physical activity (Hirvensalo et al., 2000) and frail elderly adults seem to benefit from exercise interventions (De Labra et al., 2015).

Care strategies to maximize functional status and prevent decline in elderly adults have been studied, and have focused on maintaining a safe level of ADL and physical mobility. When care is designed to improve the functional outcomes of ill elderly clients, the strategy is to maintain the individual’s daily routine. It is important to help the elderly client maintain their physical, cognitive and social functioning through physical activity and socialization. Encouraging walking, to maintain safety and independence, and using assistive devices and environmental adaptations, is at the core of care (Landefeld et al., 1995.), as is helping elderly clients during convalescence after acute illnesses to regain baseline function through exercise, physical therapy consultation, nutrition and coaching (Kresevic & Holder, 1998; Covinsky et al., 1998; Conn et al., 2003; Hodgkinson et al., 2003; Forbes 2005; Engberg et al., 2002). Formal caregivers should study and educate elderly adults and their family on the value of independent functioning and the consequences of functional decline (Graf, 2006) by informing them of strategies to prevent this, i.e. exercise, nutrition, pain management and socialization.
(Landefeld et al., 1995; Siegler et al., 2002). Encouraging activity through routine exercise, range of motion, and walking to maintain activity, flexibility and function is a necessary part of evidence-based nursing, and includes minimizing bed rest (Counsell et al., 2000; Landefeld et al., 1995; Pedersen & Saltin 2006; Bates-Jensen et al., 2004). Geriatric care has a strong suggestion of judicious use of medications, on the one hand psychoactive medications, and on the other hand geriatric dosages when assessing and treating pain (Inouye et al., 1998, Covinsky et al., 1998).

In their systematic review of randomized, controlled trials, De Labra et al. (2015), examined exercise interventions (507 articles) to manage frailty in elderly people. Low physical activity is one of the common elements of frailty, and interventions can prevent or reverse this syndrome, although the optimal program remains unclear. Out-of-home mobility is important and necessary for accessing commodities, making use of neighborhood facilities, and participation in meaningful social, cultural and physical activities (Rantanen, 2013).

Falls are common among elderly people, and fall-related injuries are a significant public health concern. (Kannus et al., 2005). In addition to adverse consequences on physical, mental and social health status, the increased utilization and cost of care are also undesirable consequences of falls (Cumming et al., 2000). Fear of falling and activity avoidance due to fear of falling are common among both fallers and non-fallers (Yardley & Smith, 2002). According to several studies, approximately half of community-dwelling elderly adults report a fear of falling, and about 40% report activity avoidance due to a fear of falling (Zijlstra et al., 2007a; Wilson et al. 2005; Murphy et al. 2002; Howland et al. 1993). There are strong indications that elderly people who are afraid of falling and consequently avoid activities enter a debilitating cycle of loss of confidence, restriction of physical activities and social participation, physical frailty, falls and loss of independence (Cumming et al., 2000; Delbaere et al., 2004; Deshpande et al., 2008).

Therefore, effective strategies are needed to prevent elderly people from entering this debilitating cycle and to prevent further decline. A multicomponent cognitive behavioral group intervention for community-dwelling adults aged 70 and over, consisting of eight weekly sessions aiming to instill adaptive and realistic views of falls, reduce fall risk, and increase activity and safe behavior, followed by a booster session, showed positive and durable effects on fear of falling and associated activity avoidance. (Zijlstra et al. 2009.)

Sulander (2009) emphasizes that functional capacity must be identified extensively. In terms of living at home, it is important to pay attention to not only a person’s physical and mental performance but also to their social relations and immediate surroundings. The individual’s own estimate and opinion play a key role in how motivated they are to make lifestyle changes. In other words, the individuals should themselves have the opportunity to influence the planning of actions in order to support their functional capacity, and through this be able to choose what to do or not do. When caregivers plan programs to support their client’s physical function or mobility, the client’s own estimate and opinion plays a key role in how they will be motivated to see the program through. This in turn has a direct impact on the effectiveness of the program. Therefore, it is a question of the elderly person’s human resources, as well as of emphasizing motivating factors. (Sulander, 2009.) Behavioral factors for improving the quality of life as people age are important, because maintaining functional capacity requires the use of individual capabilities (Cassel, 2002).

Pu and Nelson describe how the process of aging brings a dramatic decline in functioning, which leads to physical impairment, disability and loss of independence. Individuals become more heterogeneous as they age, making it nearly impossible to stereotype someone who is old. Therefore, one of the major goals of care of the elderly is to prevent or reduce disability and maximize self-sufficiency. A rehabilitative philosophy lies at the heart of geriatrics. Therapists increasingly look to physical activity and exercise in particular. (Pu & Nelson, 1999.) The growth of the elderly population causes increased health care needs, as the prevalence of frailty, a state of reduced physiological reserve associated with vulnerability to physical disability (Buchner & Wagner, 1992) and accompanying disabilities, grows (Pendergast et al., 1993). Research evidence reveals a strong desire among the elderly to remain independent, such that their fear of dying is smaller than their fear of becoming dependent (Buchner et al., 1992). The key point is that age by itself should not be a deterrent to exercise, but in fact one of the most important indications to begin or to continue exercising (Pu & Nelson, 1999).
Sakari (2013) proved in her study that having musculoskeletal diseases increases the risk of decline in walking speed and that cardiovascular diseases increases the risk of the onset of self-reported difficulties walking outdoors and dependence in mobility tasks. Elderly people with cardiovascular diseases may begin to experience difficulties or need help when performing even routine low-intensity mobility functions such as shopping, because endurance activities require adequate cardiorespiratory function. Musculoskeletal diseases may restrict effortful performance such as walking at maximal speed over a short distance, though people may use compensatory strategies and thus cope without problems when walking at their own pace in their own living environment. Multiple medications (simultaneously taking four or more prescription drugs) was related to a decline in mobility performance in Sakari’s (2013) study, although the relationship between medication and functioning is complicated, as different drugs may have either beneficial or detrimental effects from the perspective of mobility, balance and general functioning. Poor self-rated health (SRH) also predicted the onset of major difficulties when walking outdoors.

Bed rest and inactivity are common among hospitalized elderly adults, even if medical care of the condition does not require staying in bed and the patients are able to walk (Brown et al., 2004; Callen et al. 2004). Several studies have shown that even short periods of bed rest have negative effects such as significantly weakened muscle strength and power and aerobic capacity among elderly people (Ferrucci et al., 2000; Gill et al., 2004; Suesada et al., 2007; Kortebein et al., 2008; Sakari, 2013). It is important and notable in home care that already before hospitalization, elderly people have less muscle mass and strength than young people do, and they seem to lose muscle mass and strength more rapidly than younger people as a result of bed rest (Kortebein, 2009; English & Paddon-Jones, 2010). Sakari (2013) also observed that a higher number of days spent in short-term hospital care (15 days or more) predicted decline in both performance-based and self-reported mobility.

People who remain physically active throughout life demonstrate much slower rates of physical decline than those who are sedentary, and a growing body of research indicates that those who have been sedentary for many years can experience significant improvements by beginning an exercise program even at very advanced ages (Fiatrone et al., 1990). Research has shown over the years that with properly prescribed exercise, elderly people can significantly improve their aerobic power (Eshani, 1987), muscular strength and mass (Fiatrone et al., 1990; Frontera et al., 1988) and bone density (Dalsky, 1989). Improvements in functional movements such as walking speed and stair climbing power have also been reported (Fiatrone et al., 1990).

Elderly people often have at least one disability or chronic condition, therefore participation in a regular physical activity or exercise program has many physiological health benefits, reducing the risk and decreasing the impact of many chronic diseases (DiPietro, Caspersen and Ostfield, 1995). Since many elderly individuals have a low fitness level when they start to exercise, it is important to begin at a low intensity and to progress gradually (Swain and Leutholtz, 2002). Physical activities that the elderly population should engage in daily include walking (indoors, outdoors, or treadmill), gardening, swimming (water aerobics) and cycling (White, 1995).

A study by Sarkela et al. (2011) measured disability and independence among nonagenarians by asking them to perform an activity such as getting in and out of bed, dressing and undressing, moving indoors, walking 400 m, and using stairs without help. Their results implied stable disability levels among nonagenarians in a population with increasing life expectancy and improving survival until the age of 90. (Sarkela et al., 2011.)

Kuczmarski et al. (1994) state that elderly individuals, including the “oldest old” and very frail elderly demonstrate physiological adaptations to strength training. The amount of this adaptation depends on the frequency, volume, mode and type of training and initial training state (Ferketich, Kirby and Always, 1998). Strength training has the potential to improve the functional capacity and quality of life of elderly people. Most elderly people can participate in an individually designed resistance-training program. Resistance training programs lasting from eight weeks to one year can increase muscle strength and mass among the elderly, regardless of age and sex. Resistance training performed at low intensity can improve physical performance, muscle mass, and the capacity to perform daily activities, and can partially mitigate age-related consequences among older adults. (Fiatrone et al., 1990; Benavent-Caballer et al., 2014). Those with hypertension or arthritis or at risk of osteoporotic fracture need to be assessed and evaluated by a doctor prior to beginning a resistance-
training program (White, 1995). Dalsky (1989) and Zijlstra et al. (2007) claim that Tai Chi is one of the best activities for elderly individuals to undertake, as it improves not only strength but also balance, and can thus reduce the fear of falling. Zijlstra et al. (2007b) have shown that home-based exercise and home-based fall-related multifactorial interventions such as Tai Chi can reduce the fear of falling in community-living elderly people.

According to the International Society of Sport Psychology (1992), the “Individual psychological benefits of physical activity include: positive changes in self-perceptions and well-being, improvement in self-confidence and awareness, positive changes in mood, relief of tension, relief of feelings such as depression and anxiety, influence on premenstrual tension, increased mental well-being, increased alertness and clear thinking, increased energy and ability to cope with daily activity, increased enjoyment of exercise and social contacts, and development of positive coping strategies.” The relationship between movement and mood has been noted; Kaiser (1999) introduced many cases and studies to prove the obvious benefits of regular exercise for physical and mental health. In one of his cases, P.K., a 72-year-old man developed major depression during his long rehabilitation from cardiopulmonary illness. Antidepressants helped him regain his volition to live. Once he began strength training and walked again with assistance, his spirits brightened even further, and he noted his accomplishments with pride.

Many elderly individuals do not have a spouse, close children or friends to rely on for socialization, assistance or support. Epidemiological studies have demonstrated a relationship between social support and physical health. (Evans, 1999.) Several studies have also shown that a lack of social support is a major risk factor for depression, morbidity and mortality (Engels et al., 1998). Participation in an organized training session provides an excellent opportunity for interaction with other people, and it is beneficial that the session involves doing all the activities in one big group, to increase interaction between the participants (Evans, 1999).

Based on previous results, exercising can reverse the effects of physical decline and lead to better independence and quality of life. As shown in many studies, elderly people can improve their physical and mental health by performing regular physical activity. This should be encouraged by medical, nursing and exercise professionals, and should not overlook elderly individuals who are unable to perform public group activities but may be able to perform, for example, seated chair activities and stationary cycling in their home environment. Exercise as an intervention produces numerous physiological changes that appear to counteract the effects of the typical aging process – exercise is the single most effective way to preserve and improve function in old age (Po & Nelson, 1999).

Getting up from a chair, or sit-to-stand, is used as a rehabilitation and intervention technique and is a central item in tests of physical mobility and functional capacity (e.g., Bohannon & al., 2008; Carvalho & al., 2009; Fahlman & al., 2008; Krebs & al., 2007). According to Rosie and Taylor (2007), in a highly variable population of elderly adults with mobility limitations, low-intensity functional home exercise of repeated sit-to-stands can improve balance. Getting up from a chair is a whole-body action. It requires postural control and other sensory-motor systems in addition to adequate strength, and it represents a particular transfer skill (Lord & al., 2002.)

The functional capacity and physical mobility of aging people has been studied extensively in recent decades and the benefits of physical activity and exercise among elderly people are becoming increasingly clear. Research shows that it is possible to measure the reduction of functional capacity and that mobility exercise can improve the muscular strength and balance of the elderly (e.g., Guralnik & al., 1995; Chandler & al., 1998; Simons & Andel, 2006). Simple progressive exercise training, even in the client’s 10th decade, increases muscle power and is associated with an improved performance of functional activities using the trained muscles (Hruda & al., 2003). These studies establish that mobility training improves daily activities and cuts down the frailty phase, and that rehabilitation can postpone the need for institutional care (e.g., Leveille & al., 1999, Stuck & al., 1993).

Ramírez-Campillo and his colleagues (2014) found that the effects of both 12 weeks of high-speed resistance training and low-speed resistance training among elderly women indicated a similarly positive effect of increased functional capacity and muscle performance. Both formative interventions were effective in improving functional capacity, muscle performance and quality of life although the high-speed resistance, training program induced greater improvements in muscle power and functional capacity.
There is also evidence of interpersonal dependency and risks of developing mood and mobility problems when receiving care at home. These correlate significantly with both depression and limited mobility. In addition, higher interpersonal dependency and depression are significant positive predictors of poor mobility among elderly adults. (Gardner et al., 2006). Takkinen & al. (2001) longitudinally examined the predictive value of physical activity for a sense of meaning in life and for self-rated health (SRH) and functioning among elderly adults in Finland. They showed that physical activity has a positive effect on both meaning in life and SRH and functioning.

According to Sharaf and Ibrahim (2008), improving physical fitness and balance control and increasing one's self-efficacy and sense of control over the environment can decrease these sources of fear among elderly adults. They discovered that the fear of falling with low perceived self-efficacy of avoiding falls during essential, hazard-free activities of daily living (ADL) is the most common reported fear among elderly adults. Although fear and falling correlate, a fear of falling is common even among elderly adults who have not actually experienced a fall, indicating that factors other than a previous fall experience play a role. The results of their study revealed that the strongest independent factor positively associated with the fear of falling was the use of walking devices, followed by depression, balance impairment, female gender, trait anxiety and a previous history of a fall or falls.

In a Finnish study (Iinattiniemi, 2009) of the incidence and risk factors of falls, the risk of fall-related injuries associated with physical activity, and the effect of a pragmatic exercise intervention on the fall risk among a home-dwelling population aged 85 years and over showed that a pragmatic intervention was not effective in preventing falls, but that it was effective in preserving balance performance. Iinattiniemi (2009) reported in her academic dissertation that exercise related to everyday activities is safe for most elderly people. Her study also demonstrated that for elderly people with better functional ability, a pragmatic exercise intervention was effective in reducing the risk of the first four falls. One of the findings was that the frequency of falls and fall-related fractures increases as elderly people age, and that anxiety-related disorders may be more important risk factors of falls than the drugs commonly used in treatment. The effects of the practical exercise intervention in this study were promising, but attention needs to be paid to adherence to exercise in order to improve these effects. (Iinattiniemi, 2009.) Salpakoski et al. 2014 discovered that an individualized home-based rehabilitation program improved mobility recovery after hip fracture more than standard care, but to be efficacious in reducing or reversing disability after a hip fracture, in addition to being individualized, rehabilitation should include many components, be progressive, and span a sufficiently long period.

Wallin, M. (2009) examined the situated praxis of group-based physiotherapy in geriatric inpatient rehabilitation aimed at frail, community-dwelling elderly adults by interviewing and video-recording elderly adults aged 66–93 and their 11 physiotherapists. The elderly adults described their rehabilitation experience as giving them a sense of confidence in their everyday living. The physiotherapists described the elderly adults as either recipients of a rehabilitation intervention focusing on their physical functional ability or social needs, or partners in an exercise intervention to enhance their ability to cope at home. Wallin (2009) discovered that allowing and enabling team efforts by elderly adults during exercise sessions provided meaningful social interaction and togetherness. She suggests that elderly adults’ initiations and independent actions together with joint problem solving are important skills for coping with the challenges of independent living in a community. The link between activities knowingly practiced during physiotherapy and everyday living through daily tasks enhances the opportunities to adopt these new skills. (Wallin, 2009.)

Campbell, A.J. et al. (1997) studied whether a home exercise program of strength and balance retraining exercises could reduce falls and injuries among elderly women. They found that an individual program of strength and balance retraining exercises improved physical function and was effective in reducing falls and injuries among women of 80 years and older. As part of this study, a trained district nurse of the home health service prescribed a home-based exercise program delivered by a physiotherapist, previously shown to be successful in reducing falls and injuries among elderly people. It reduced falls. Serious injuries and hospital admissions due to falls also decreased. A program of muscle strengthening and balance retraining exercises designed to prevent falls, individually prescribed and delivered at home by trained health professionals was most effective in reducing fall-related injuries among those aged 80 and over and resulted in a higher absolute
reduction in injurious falls when offered to those with a history of previous falls. (Robertson et al., 2001 & 2002.)

Mobility disability leads to avoidance of physically challenging features in the environment (Shumway-Cook et al. 2003) and is likely to further reduce willingness to move about, consequently negatively affecting physical status (Sakari, 2013). Takkinen et al. (2001) examined the predictive value of physical activity for a sense of meaning in life and for SRH and functioning among elderly adults in Finland. They discovered that physical activity had a positive effect on both meaning in life and SRH and functioning.

In a randomized, controlled trial by Day et al. (2002) elderly people’s falls were reduced most effectively when exercise, home hazard reduction and visual correction were combined in their own homes. Karinkanta et al. (2007) showed that the combination of strength, balance, agility and jumping training prevented functional decline and bone fragility among home-dwelling elderly women. Their findings supported the idea that it is possible to maintain good physical functioning through a multi-component exercise program and thus postpone age-related functional problems. According to Gillespie et al. (2009), seven supervised group exercises decreased the rate of falls by 22% and the risk of falling by 17% among adults aged 60 years. One prominent finding was that individually prescribed exercise programs at home reduced the fall rate and risk of falling by 34% and 23%, respectively. Tai chi was analyzed separately and showed a 37% reduction in fall rate and 35% reduction in the risk of falling.

Gillespie et al. (2009) found that exercise programs that contain two or more strength, balance, flexibility, or endurance exercises reduce the rate of falls and the number of people who fall. Exercising in supervised groups, participating in Tai Chi, and carrying out individually prescribed exercise programs at home were all effective. Karinkanta et al. (2010) concluded that the most effective physical therapy approach for the prevention of falls and fractures among community-dwelling elderly adults is regular multicomponent exercise; a combination of balance and strength training has shown the most success. Exercise can be done as a group or individually in a home-based setting. Individual risk factors for falls are numerous, and include age, gender (being female), a history of falls, balance deficit and polypharmacy. In Piirtola’s (2011) study, the absence of physical exercise in leisure time activity was a predictor of both functional decline and increased mortality.

In her dissertation, Sakari (2013) explored mobility and its decline in old age from the point of view of determinants and associated factors. Her results suggest that both self-assessments and performance-based measurements are needed to achieve a comprehensive picture of an elderly person’s mobility functions. Actions to prevent mobility decline should be targeted systemically toward elderly people who spend even short periods in hospital care. When developing preventive actions and rehabilitation, in addition to muscle strength and balance, attention should be paid to determinants such as visual acuity, reaction time and flexibility of lower extremity joints.

Rantanen (2013) argues, based on her study results concerning frail, elderly patients discharged from a hospital ward after an acute illness, that the effects of progressive resistance and functional training, i.e., intensive physical training, counteract the negative consequences of acute diseases and hospitalizations.

“Use it or lose it” (Cassel, 2002; Rantanen, 2013) is definitely a true statement in terms of mobility in old age. Therefore, it is important to find ways in which to increase or maintain the active physical mobility of elderly people. Physical mobility should be promoted at the community level as well as at an individual level. Community planning strategies and community services are important to minimize environmental and social barriers and to ensure equal opportunities for physical mobility among those with functional limitations. Moreover, elderly people should be given opportunities to participate in physical activities. (Rantanen, 2013.)

Walker (2008) writes about the emergence and application of active aging as the leading global policy strategy in response to population aging in Europe. He crystallizes the application of active aging in terms of “volunteering” being as valued as “paid employment”, and as all age groups being involved in the process of aging actively across the whole life course. An active aging policy should encompass all elderly people, even those who are, to some extent, frail and dependent. Such a policy should exhibit fairness between generations as well as provide opportunities to develop activities that include all generations. The rights to social protection, lifelong education and training should be accompanied by obligations to take advantage of
education and training opportunities and to remain active in other ways. A strategy for active aging should respect national and cultural diversity and be participative and empowering by enabling and motivating citizens to take action from the bottom up by, for example, developing their own forms of activity. He examined the emergence of discourses on aging at the EU level, concentrating on the policy concept of active aging, and found that in the EU, the comprehensive vision of active aging set out in 1999 has not been reflected in either policy instruments or actions. Based on his findings, Walker assumed that a fresh approach was needed to reorient the discourses of active aging from the dominant productivist focus on employment to a broader, more comprehensive approach to participation and well-being as people age, i.e. elderly people need to transition from a largely passive to a more active political orientation. Individual responsibility should be matched by policy action to connect all the potential ways of supporting active aging, which are usually separated into different administrative departments. (Walker, 2008; Walker & Maltby, 2012.)

Chen et al. (2014) realized that physical activity holds promise for mobility-impaired elderly adults to prevent further disabilities and improve their health. However, staffing constraints have made it challenging to promote physical activity among home-based elderly adults who are wheelchair-bound and in long-term care facilities. They conducted a 12-month study of wheelchair-bound seniors exercising in groups with elastic bands, led by volunteers for the first six months, followed by a DVD-guided program three times per week and 40 minutes per session. For a further six months, the exercise program included functional fitness, ADL and a focus on sleep quality. They concluded that this was a feasible way to carry out exercise programs, using volunteer-led exercise groups followed by DVD-guided modalities leading to better functional fitness, ADL, and sleep quality among elderly adults in wheelchairs. The program can be routinely applied in institutional settings.

Exercise programs for elderly patients have received a great deal of attention for their potential role in preventing illness and injury and limiting functional loss and disability. The basic components of an exercise-training program include strength, endurance, balance and flexibility. Although many studies of training programs focus on individual types of exercise and their contributions to the elderly person’s health, all exercise programs for seniors should incorporate aspects of all of these. The program must be tailored to the individual needs of the client and based on physical examination, laboratory, and diagnostic data. A major contributing factor to poor client compliance is lack of professional support. Accordingly, the professionals should always emphasize not only the specific recommended exercise program to their elderly clients but also the benefits to be expected from it. (Frankel et al., 2006.) The key point seems to be that age by itself should be one of the most important reasons for beginning or continuing to exercise (Pu & Nelson, 1999).

The absence of disease as criteria for successful aging may not be relevant; Nosraty et al. (2012) suggest that the focus should be more on age-sensitive approaches, namely autonomy, adaptation and sense of purpose, in order to understand the potential of successful aging among individuals who already have good longevity. Successful aging defines success, not the absence of disease or disability, but an individual’s personal satisfaction with the ability to adapt to change over time, while maintaining a sense of connectedness, meaning, and purpose in life (Flood, 2005)

2.2 The home care environment and the elderly client’s agency

At the end of the day, performative functional capacity, i.e., the use of functional capacity and physical mobility in the elderly person’s context is all that matters. Agency is fundamentally connected to the body, to intentional physical movement and to a human being’s ability to move around.

“Intentional movement is accompanied, if not by an explicitly conscious sense of volition, then at least by the lack of a sense of helplessness or want of control. A sense of agency is built into intentional movement and is noticed when it goes missing. (…) If one loses control over motor activity, one also loses a sense of agency (or gains a sense of helplessness).” (Gallagher, 2005, p. 56; see also Gibbs, 2005).
Elderly people who are socially well integrated into their communities have higher rates of long-term survival and may have an increased capacity to recover from disease. (Bergman, 1982). Empowerment results from a particular belief related to elderly people, the basis of which is that they have the capacity and resources to define and find strategies to solve their own problems (Turjamaa et al., 2013). Social isolation is a serious risk factor for mortality and morbidity (Bergman, 1982). Frail elderly clients with serious diseases or disability usually need a support system to remain in the community (Morris et al., 1984). Weakening of physical mobility is a central barrier to an elderly home care client’s agency. Interest often precedes participation, but may fail to do so due to environmental barriers (Law, 2002).

Less attention should be paid to psychological and social resources and aspects of empowerment. Mental health and functional capacity have more impact on the perception of the condition of health and quality of life of elderly individuals. (Azpiazu, 2002; Hayashi et al., 2011; Salguero et al., 2011.)

In their commentary, Laybourne et al. (2008) raise doubts as to whether fall exercise interventions (fall prevention exercise programs) actually reduce falls by asking whether these interventions are always in the elderly adults’ interest. They argue that assessments of the clinical efficacy of fall prevention exercise programs mainly focus on the measurement of physical function and the rate of falls, and are therefore too narrow to capture the responses of individuals to a fall and to exercise programs.

Baltes and Baltes’ (1990) profiling model could be used to indicate whether the outcome of a changed rate of falls might be explained by the choices people make concerning how to live their lives rather than a pure intervention effect. Their general lifespan developmental model suggests that elderly people use strategies of selection, optimization and compensation to enable the continuity of identity in daily life. This developmental model’s underlying themes of plasticity, agency and preparedness for dealing with life-course demands emphasize the ability of a “person in context” to actively overcome challenges. (Coleman et al., 2004.)

Hovbrandt et al. (2007) studied how very old, over 80-year-old people experience occupational performance outside the home. The findings showed a variation in the experience of occupational performance, using three aspects: continuing to do as before, drawing on available resources and living in constrained circumstances. In order to support very old people's occupational performance outside the home, outdoor mobility must be facilitated, and this includes designing the physical environment as well as creating opportunities for social interaction.

Measurements of the functioning of a nonagenarian (Jylha et al., 2013) showed minor improvement over time in independence in performing ADL, no change in mobility or chronic conditions, and declining SRH. Inhabitants aged 90 years and over are likely to have both healthy and disabled years, and the number of those in need of help will grow. (Jylhä et al., 2013.)

According to Jyrkämä (2007), individuals construct their own life courses and futures by utilizing the resources they have and acting and making choices in situated time and space, within the scope of the possibilities, conditions and constraints that the actual sociocultural circumstances may offer them. Jyrkämä (2007) approaches individuals’ agency through six modalities, which are different but interconnected: being able to do something, knowing how to do something, wanting to do something, having possibility to do something, having to do something and feeling, experiencing and appreciating something. These modalities have a variety of connections to contexts such as age, moment, gender and space or place. They may be analyzed in four different dimensions: actors or agents, everyday practices, physical and social spaces, and local cultures. The actor’s or agent’s perspective is of what is known, what one is able to do and one’s aspirations, etc.

This is adapted to the demands of everyday practices with regards to what one needs to know, needs to be able to do and what one wants; which create necessities, constraints and possibilities that influence the perspective of the actor or agent. Physical and social spaces also impose necessities, constraints and possibilities that further influence this perspective. Finally, local cultures provide meanings, self-evident facts, anticipations, routines and traditions. (Jyrkämä, 2007, pp. 207–208.)

Jyrkämä (2007) makes four points about future research. First, current thinking is based on narrowly understood social functional capacity and we should expand this thinking to the social context in which functional capacity is used. Secondly, we should start to focus our studies on performative functional capacity,
i.e., the implementation of functional capacity within the elderly person’s context. In other words, we should transfer our focus toward how elderly people actually use or do not use the functional capacity resources that are available to them. Thirdly, this change of thinking expands the main focus from the objective, measurable, functional capacity to include experiential, subjective and contextual estimates of what is required for daily life and the expected and available functional capacity to meet these requirements. (Jyrkämiä, 2007, p. 201.)

One may look at agency as a quality of each individual (Jyrkämiä, 2007), or as a quality of the collaborative effort, relationship and interaction itself (Engeström, 2005).

Engeström (2004) foresees a growing need for formative interventions in which old people themselves take center stage as subjects with transformative agency. A movement from individual initiatives to more collective forms of transformative agency explains how individual volitional actions could break away from the old and grow into a new concrete collective activity.

The home care context of many clients easily narrows down to individual, separate care actions and while these actions are being conducted, the client and their functional capacity in their own home may often be forgotten. Task-oriented home care as a work method does not support the need to observe and support the client’s functional capacity. Although it is important to develop the workers’ clinical nursing expertise in home care, it is just as essential to invest in home care as a work method in which workers offer more than just care. For many home care clients, their weakening functional ability restricts them to living their lives within four walls. In this case, home care plays an important role in identifying the clients’ needs, fulfilling them and creating necessary support networks. However, people who work in home care do not necessarily have the training, expertise or time to think about what could be done for each client to maintain their functional opportunities and functional ability. (Kerosuo, 2009.)

Assessing home environments and cooperating with physical and occupational therapists is an essential competence for home care workers. In order to enable the physical activity of the elderly clients in their homes, possible modifications and renovations must be made, such as the attachment of handrails, wider doorways, raised toilet seats, shower seats, improved lighting, low beds, and chairs of various types and height (Kresevic & Holder 1998; Cunningham & Michael 2004).

Tepponen (2009) developed a model with recommendations for good home care, according to which an elderly person must be treated as a physical, psychological and sociocultural entity, living in their own environment. This particular person, the home care client, must be supported to cope at home by maintaining quality of life and strengthening remaining resources. The home care services must be integrated by means of organizations, networks, policy measures and multiprofessional rehabilitative, proactive and preventive approaches, utilizing electronic communication. Tepponen (2009) also suggests that the management and implementation of home care must be steered in a goal-oriented way, taking into consideration the local circumstances and multi-actor service structure. From the viewpoint of sociocultural work, Tepponen (2009) finds the meaning in home care clients’ lives by active or passive participation in events. For example, participation as an actor in study groups, reading groups and artistic activities must be implemented in cooperation with others. (Tepponen, 2009.)

Turjamaa (2014) studied elderly people’s individual resources. In her study, both the elderly people and the home care workers were aware of the available resources, which consisted of the social relationships and elements of meaningful daily living, including the seniors’ ability to manage everyday activities, their ability to function, the availability of home care services, and the safety and functionality of the environment. Despite this awareness, the gap between awareness and practice in daily home care was clear: Clients felt that their resources had not been taken into account and were not supported. As a consequence of this, Turjamaa drew up recommendations to promote elderly clients’ living at home through comprehensive home care services. In order to enable this, care professionals have to recognize and faithfully document their elderly clients’ individual needs by using assessment tools from the client’s point of view. These perspectives should also be taken into account when planning care and services. Home care services need to be delivered as individually designed services that take into account clients’ resources and perspectives of meaningful, inspiring activities and social relationships.
Health professionals such as home care workers should promote positive attitudes toward physical exercise among elderly people and avoid stereotypical images and negative messages (Rantanen, 2013). Hirvensalo et al. (2005) found that many elderly people remembered that their doctor had advised them to avoid physical exertion. It may be that such a message has been intended for a limited time, but that the client considers it to be indefinite. In old age, progressing diseases and the ensuing impairments and functional limitations increase the risk of mobility decline, potentially resulting in a situation in which the elderly person becomes confined to their home. Participation in meaningful activities and running daily tasks, which are key elements for life satisfaction, require the ability to access the outdoors. Outdoor physical activity, particularly walking, plays a key role in the maintenance of functional independence in old age (Simonsick et al., 2005.)

Mobility fosters healthy aging as it relates to the basic human need for physical movement. To promote mobility, it is not enough to target only elderly individuals: Actual environmental barriers to mobility may also accelerate mobility decline among elderly people. Promoting the physical mobility of elderly people requires coordination, co-operation and communication with health care providers, engineers, community planners and decision-makers, leisure service providers and civil society, as well as with family members and other significant others. Communities need to organize the accessibility of physical environments while also trying to reduce negative or stereotypical attitudes toward the physical activity of elderly people. The common goal should be to optimize opportunities for elderly people to maintain independent mobility for as long as possible in spite of many possible problems related to mobility – sometimes solving just one of these may critically create opportunities to solve others. (Rantanen, 2013.)

Eloranta (2008) discussed, on the basis of her study results, how care provided by professionals conflicted with elderly clients’ expectations and did not always support the clients’ own resources. Home care professionals took care-related decisions and actions on behalf of their clients, even though the clients themselves stressed the importance of retaining their sense of life control and will. The factors that frustrated multi-professional collaboration to support client resources included the difficulties of care professionals in identifying clients’ resources and the threats to these resources, communication problems, a lack of clear goals and contrasting views and ways of working among care professionals. The elderly clients’ self-assessments of their need for support to be more independent and the provision of physical, psychological and social care were greater than the assessments made by the care professionals.

In addition, Eloranta (2008) also noticed a tendency among care professionals to undervalue elderly clients’ own expertise regarding their own lives. In order to promote a more client-driven and goal-oriented approach to home care provision, the roles and responsibilities of professional care providers need to be clarified and the methods of communication improved.

Räsänen (2011) studied the quality of life of the frail elderly (average age 83) and the quality of care and management of the client’s quality of life in elderly long-term care. She found that elderly people living in residential care, long-term care, or private nursing homes experienced a quality of care that satisfied their quality of life, and that nurses had opportunities to personally influence this. Physical health, the ability to function, adaptation to aging, social relations and mental well-being were important to elderly people. Getting along with their peers, having enough activities and receiving sufficient help had a positive impact on their quality of life. Their satisfaction with nurses, the adequacy of time given by nurses, and the overall quality of life was not connected to a high number of personnel. A smaller organizational structure and the practicality of quality management and the management system were connected with a better quality of life among the elderly. The concept of quality of life and care seems to depend on gerontological professional care and management in order to be realized – quality of life for the elderly can only be supported through the delivery of holistic care that consists of these elements. (Räsänen, 2011.)

The necessary gerontological care and its management could be delivered to the elderly clients in their home environment. This would require flexibility to correspond to the needs of care and nursing but would avoid having to move the elderly person from one care unit to another. There would be no need to move the elderly clients from their home environment if the right support elements were in place and orchestrated correctly. In other words, if sufficient supported activities were available, coordination was in place and they
were able to receive the needed support services, elderly clients could enjoy the quality of life that Räsänen describes (2011).

Tulle (2010) suggests that physical activity in old age offers the promise of recovered mobility; longer life and improved well-being, physical activity and exercise might represent new modalities of agency. Thus, the discourse of aging and old age centers primarily on the body and the aging body’s malleability, rather than on its declining properties. Agency is understood as a field of possibilities, shaped by discourse, policy, values, meanings and narratives, which might contain the potential for resistance.

According to Tulle (2010), the sustainable potential of physical activity as a modality of agency is limited by factors such as its medicalization:

- The association of exercise with the prevention of disease and secondary aging and its appropriation by the “aging enterprise”,
- The reconstruction of physical activity as a prescription for the prevention of frailty and the decrements of old age narrows aging to the illness narrative.

Moreover, these factors concern a discourse of aging that is barely influenced by a focus on exercise, as well as the norms of physical competence in later life, which are largely set and operationalized by professionals rather than the elderly people themselves. In brief, Tulle (2010) is concerned about the current structures—both cultural and practical—which continue to largely exclude elderly people whose participation is scattered and rarely securely embedded in everyday life.

Chou et al. 2012 summarized their Meta-Analysis in the Effect of Exercise on Physical Function, Daily Living Activities, and Quality of Life in the Frail Older Adults. The exercise intervention only slightly affected physical function, mainly by increasing gait speed and the Berg Balance Scale (BBS) score and improving ADL performance. Their notions, however, were that participants in trials may have been unrepresentative of the total frail older elderly population because some who would have benefited from exercise were excluded due to age or other comorbidities that prevented them from exercising.

They provided no clear recommendations regarding which type of exercise is most beneficial for the elderly population. (Chou et al., 2012.)

Exercise and physical activity were reconstructed as a prescription (Tulle, 2008) for two aging processes: primary and secondary aging. Primary aging refers to the normal, time-bound decrements that affect all living organisms. Secondary aging associates with the decline (disease, frailty and falls) that comes from external factors or sedentariness. Exercise is believed to prevent secondary aging by improving physiological functioning. The best evidence that exercise might have this effect is that based on fit study participants with several years of experience of high physical competence. The outcome of subjecting unfit research participants to short exercise programs is often unclear, partly because of a lack of long-term data but also because the experiments are carried out in a controlled environment that does not necessarily mirror everyday bodily deployment. Hence Tulle (2010) encourages elderly people to take up the call to exercise, that is, to make physical activity a mainstream modality of agency.

As active home care clients, elderly people might become empowered through shared expertise (Bodenheimer et al., 2002) with professionals. The partnership paradigm of collaborative care takes into account the clients’ expertise in their own life, while professionals are experts in diseases and the promotion of functional capacity and physical mobility. The client and professional home care worker share the responsibility for solving problems and for outcomes. The ideas of a client and home care worker interact, building upon each other to create a better outcome.

In the context of home care and elderly clients’ agency, the partnership paradigm of shared expertise might hold the key. The clients accept responsibility for managing their own conditions and might be encouraged to solve their own functional problems through information—not orders—from home care workers. Bodenheimer et al. (2002) compared traditional client education and self-management education and found that self-management education teaches problem-solving skills. Self-management education allows clients to identify their own problems and provides help in decision-making and taking appropriate actions. A key feature of self-management education is the client-generated short-term (1 or 2 weeks) realistic action plan: For example, proposing behavior that the client feels confident about and can accomplish, such as deciding to take walks
around the block or inside their apartment if they feel fatigue on Mondays, Tuesdays and Thursdays. The home care worker can measure the client’s confidence by asking: “On a scale of 0 to 10, how sure you are that you can walk before lunch on Mondays, Tuesdays and Thursdays?” Bodenheimer et al. (2002) recommend that if the answer is seven (7) or higher, the action plan is likely to succeed. If the answer is below seven, the action plan should be made more realistic in order to support the client’s performative functional capacity in their life context. Bodenheimer et al. (2002) also observed an important self-management concept called self-efficacy; namely, confidence that a client can behave in a certain way in order to reach a certain desired goal. The purpose of the action plan is to give clients confidence to manage their own functional resources by fueling their internal motivation.

Skills and abilities, communication, problem solving and decision-making are all important factors in determining participation, which implies being involved, making choices and taking risks. (Law, 2002). Studies of elderly people indicate that difficulties in performing ADL, decreased mobility, and depressive symptoms are associated with less participation. Whether they are causal in nature is not known (Idler & Kasl, 1997; Patrick et al., 2000).

2.3 The home care environment and the home care worker’s agency

Several studies indicate that successful encounters between home care clients and their home care workers are crucial. A successful encounter can support the elderly clients’ physical mobility, agency and overall quality of life by means of exercises embedded in daily chores at home. (Beswick et al., 2008; Brodie & Inoue, 2005; Burton, Lewin, & Boldy, 2015; Chou, Hwang, & Wu, 2012; Eloranta et al. 2008 a,b; Law, 2002; Stuck, Beck, & Egger, 2004; Turjamaa, Hartikainen, Kangasniemi, & Pietilä, 2014.)

The terms of a home care worker’s agency can be understood as professional agency, an action-based phenomenon rather than an individual’s capacity or property. The notion of professional agency in health care contexts includes employees’ responsibility and activity as actors in work contexts. Professional agency is essential for the processes of work-related learning and organizational development. (Vähäsantanen et al., 2017.)

Nurses play an important role in elderly people’s home care service work. The home care nurse provides direct physical nursing care; teaches clients, family members and volunteers; supervises and case manages. (Zerwekh & Rector, 2013). The home care nurse can also integrate depression care management (Bruce et al., 2015) into home care practice. Professionals such as nurses, social workers, therapists and certified nursing assistants work in collaboration with family members and, in some situations, with friends and neighbors. They also assess clients to determine their health status and competence for additional services, act as client advocates and determine the frequency and duration of services that are conducted in the home. Like the home care client, nurse must familiarize themselves with the requirements of documentation to promote the continuity of care and ensure reimbursement. (Zerwekh & Rector, 2013).

Bindels et al. (2014, 2015) studied elderly people who had lost their connection with society and had received support to reconnect. They discovered how a relationship of trust with the nurse is an important aspect of care, as it fosters the sharing of feelings and issues other than physical or medical problems. In other words, care for frail older people should include an awareness of the importance of a trusting relationship. Nurses should receive more support for dealing with the psychosocial and social problems of frail older people, with a proactive approach to identifying frail older people in the community and providing them with appropriate care and support. Nurses’ agency can play a vital role in creating a trusting relationship. They can bridge the gap between older people and other professionals and services. The development of a trusting relationship should be given high priority in care for community-dwelling, frail older people.

Unfortunately, studies also show how home care professionals are unwilling to empower their clients, and often ignore this critical variable and hence do not develop a plan of continuing care that would allow their patients an optimal level of continued integration into the community (Applegate et al., 1990; Donahue et al., 2008). The object of home care nurses often manifests itself in a series of scripted actions and situational operations conducted in the client’s home (Kajamaa & Hilli, 2013). Dealing with unmet needs at home,
ongoing support from home care nurses may reduce bed blocking by moving away from the “crisis management” of frail elderly patients in their homes (Longstaff, et al., 2018).

The terms of a home care worker’s interaction with the client are often regulated by a script that determines the roles of the participants and the order of expected actions, but each participant pursues their own object. The dominant form of interaction is coordination (Engeström, 2008b). The home care worker completes the tasks required in the standard home care script inscribed in the care plan: medications, blood pressure, nutrition and hygiene. The client typically follows the script as a passive recipient of services. This means that the worker does tasks for the client, not with the client. Sometimes the client may bring up needs and initiatives that go beyond this script, such as issues of physical mobility, memory and social isolation. (Engeström et al. 2015.)

The shift in the locations in which care is provided, namely from institutional settings such as hospitals to the home, means that the home environment demands decisions regarding language use. Language and place mutually influence the experiences and delivery of home health-care. The home care nurses view themselves as “guests”, home environments facilitate the development of nurse-client relationships, nurses adapt health care language to each home environment, and storytelling and illness narratives largely prevail during medical interactions in the home. Giesbrech et al. (2014) underline the importance of the discussion on the language-place-healthcare intersection for gaining a better understanding of medical exchanges in different locations and the associated implications for optimizing best nursing practice. (Giesbrech et al., 2014.)

Fukui et al. (2014) suggest that home-visit nursing agencies should become nurse centered, rehabilitation centered, psychiatric centered, urban centered and rural centered. Their findings indicate that these terms for the worker’s agencies could ensure appropriate health care policies that would allow agencies to provide better home-visit nursing based on client and home care worker characteristics.

As home care in the public sector is pressured by demands such as cost efficiency, it is important for home care workers to efficiently carry out their pre-planned tasks. Yet breaking the normative script by allowing and taking part in the initiatives proposed by clients may improve the impact and quality of the activity. However, this does not mean doing so at the expense of the tasks required in high-quality home care provision (Kajamaa and Lahtinen, 2016.)

A fruitful conceptualization of professional agency at work requires cultural and structural changes in practical philosophy and policy (Eteläpelto et al., 2013). Professional practice is developed and is enacted in specific institutional settings. New forms of practice are required which call for the capacity to work with other practitioners and draw on resources that may be distributed across systems to support the home care client’s actions. The concept of relational agency leads to an enhanced form of professional agency, which is of benefit to the objects of practice. Relational agency involves a capacity to offer support and ask for support from others – by doing alongside others and working together. (Edwards, 2005.)

The possible continuum (Jones, 2007) of doing “to” home care clients (containing and controlling as well as caring), through doing “on behalf of” them (paternalistic but often also patronizingly assuming “coziness” in looking after people), then doing “with” them (partnership and participation), to offering more independence, choice and control and doing “by” themselves but with “assistance” when needed, seems to be the issue for professional agency in home care. In other words, instead of the home care worker’s agency being a list of separate routine tasks done “to” their client or “on behalf of” the client, it involves conducting mobility exercises together, so that the clients have more opportunity to be “in charge”, doing things “themselves” but with “assistance” rather than “care”.

Conceptualizing the professional home care worker’s agency at work might also lead to new types of encounters. The impact of telecare as an aspect of home care services will change the cooperative nature between home care workers and elderly clients. Woll’s (2016) findings indicate changes in how cooperative home care work is distributed when moving from conventional home care to telecare-mediated home care services.

Home care usually refers to activities that elderly citizens cannot do themselves, and how the home care workers motivate their elderly clients to continue with self-care activities for as long as they can master them. This aspect of caring requires the workers to evaluate the home care clients’ physical and cognitive capabilities.
to make decisions regarding which tasks the clients need support with, and which tasks they can manage themselves. Thus, home care can be seen as encounters in the relationship between the home care workers and their clients. The duration of each home appointment is estimated according to the formal agreement on which tasks the client should receive support for. However, unexpected incidents during appointments can extend the time they spend in the client’s home. Thus, as it is difficult to arrange a fixed time for each encounter, the clients often have to wait for the workers to arrive before they can carry on with their daily life activities. Remote home care, such as telecare, gives both the home care worker and the client flexibility, as the service can be provided at a set time from a remote location. However, the conventional relationship between home care workers and their clients changes when caring is mediated by incorporating technology as part of the care work. (Woll, 2016.)

Home care professionals play a key role in recognizing and supporting elderly clients’ resources (Turjamaa et al., 2013). The need for supervisors for elderly people is increasing, for example, when negotiating the balance between dependence and independence (Burack-Weiss & Brennan, 2013). Turjamaa et al. (2013) underline that in order to promote elderly home clients’ living at home, the home care needs to be individually designed and must take into account the client’s resources and their perspectives of meaningful and inspirational activities.

The home care worker’s agency can be crucial in supporting elderly people in their home environment. The results of Eloranta et al. (2008b) show that the skills and abilities of home care professionals are not quite sufficient to identify and support elderly people’s existing functional resources. As well as having access to necessary resources, it is also crucial that elderly people know how to apply their functional capacity.

However, one professional home care worker cannot take the entire responsibility for this on his or her own. On the contrary, multiprofessional collaboration is needed. Eloranta et al. (2008a) described professionals’ work as being expert oriented: In multiprofessional collaboration, each expert takes care of their own part of the client’s situation. Multiprofessional collaboration addresses the risk that the client’s overall situation may remain uncharted. The client’s overall situation is, in all cases, a very important aspect when professionals help elderly people to live in their own homes for as long as possible. Eloranta et al. (2008a) revealed the need to develop collaboration skills between social and health care professionals so that the staff work as a team to better serve the needs of elderly clients, together.

A study by Markle-Reid et al. (2006) claims that nurses have an important role to play in delivering health promotion to elderly home care clients with long-term health care needs. They suggest that with modest reorganization of the delivery of existing home care services and by giving greater priority to nursing health promotion, frail elderly home care clients can experience an improved quality of life at no additional cost to society as a whole (Markle-Reid et al., 2006).

The findings of a study by Kneafsey et al. (2003) indicate that community-based nurses working as home care workers contributed to clients’ rehabilitation by making assessments and referrals to other members of the multi-professional team. Advocating for and cooperating with other services, helping people adapt, teaching and motivating clients and their workers, supporting and involving families, and providing technical care are important contributions. The authors identified a number of challenges in the roles of home care workers, including feelings of exclusion, lack of recognition, a lack of time for rehabilitation and a paucity of referrals for rehabilitation. Greater clarity and recognition of the home care workers’ contribution to rehabilitation are needed, and it must be ensured that their assessments contribute to clients’ rehabilitation goals and the promotion of independent living. (Kneafsey et al., 2003.)

Low (2003) presents a meta-analysis of rehabilitation nursing and suggests that nurses play an integral part in rehabilitation. Education is central to nurses’ development in the rehabilitation sector, and it is imperative that practicing nurses recognize the role they play in the process of health care. He discovered some uncertainty concerning the boundaries of the nurse’s role – it may be impossible to define these boundaries, possibly because of the changes and expansions in nursing practices.

Rehabilitation, especially in elderly home care, requires every member of the multidisciplinary team to collaborate with other professionals. No single member of the team can work independently. They have to work as a chain, hand in hand, in order to achieve the best possible outcome for the client together. Low (2003)
and Long et al. (2003) observed that the other members of the multidisciplinary team do not always understand the nurse’s coordinating role in rehabilitation, and that nurses are often given a secondary place. In the context of elderly people’s home care, this can leave these nurses feeling unappreciated and less valued. Home care workers bring their own expertise and this should not be undervalued; it should be more openly recognized and appreciated. (Low, 2003.)

Particularly in the home care context, Brillhart et al. (2001) see difficulties such as poor interdisciplinary coordination, budget restrictions, lack of understanding of rehabilitation nursing and inadequate home aides. The differences between inpatient and rehabilitation in-home care include less equipment, lower resources and increased levels of responsibility in home care. The barriers to the transition to home rehabilitation nursing are, for example, interdisciplinary team communication and documentation, time management, autonomous nursing roles and separation from help or emergency services. Their study concluded with a recommendation to reward home care workers’ agency for including one-to-one interaction with clients, teaching and guiding opportunities, and the promotion of elderly clients’ functioning, home care worker autonomy, and seeing rehabilitation results. (Brillhart et al., 2001.)

It seems that the formation of the sustainable physical mobility of home care clients requires people to understand that participation has a positive influence on health and well-being. Supporting the clients’ performatif functional capacity in their life context must be included in the responsibilities of the home care organization and the home care workers. Participation in the life environment has several dimensions: The person’s preferences and interests; what they do, where, and with whom; and how much enjoyment and satisfaction they experience. (Law, 2002.)

Lehto et al.’s (2017) study explores the meanings given to functional ability in the interview talk of nurses and elderly people, and in their accounts, the nurses saw functional ability as concerning the basic functions of everyday life. They often used formal and theoretical language. For elderly people, functional ability was a more comprehensive concept.

The nurses’ talk particularly, but also the elderly people’s talk, promoted being active, which reflects the public discourse on functioning. The nurses positioned themselves in relation to functional ability as competent professionals and active caregivers. Lehto et al. (2017) found three positions in the elderly people’s talk: an active individual taking care of him- or herself, a recipient of help, and a burden to nurses. Based on this, Lehto et al. (2017) suggest moving in a direction that promotes activity, rehabilitative care and a better understanding of elderly people’s individual needs as well as their own views on functional ability.
3 Development of home care in Helsinki

In this chapter, I discuss the development of home care as a context for organizational change in Finland. I mainly focus on Helsinki, as it is the site of the general hypothesis of this study and the zone of proximal development.

This chapter touches on the reality of the changes in social and health care policies in the organizational development of home care in Helsinki. It concerns people with multiple and chronic illnesses living at home when the political focus has switched from care of the home to care of the client.

In this chapter, I also introduce my research site, the related interventions and the need for shared transformative agency in mobility-related interactions between home care workers and their elderly clients.

3.1 History and practical world of home care in Finland – the City of Helsinki

In the 1950s, migration – mainly women from the countryside to cities – started to increase in Finland. This migration of women to the cities, their participation in further education and the resulting opportunities to obtain salaried work led to a decrease in the number of semi-employed women in the countryside – the major group of unpaid caregivers. In the 1960s, this trend was accelerated by a significant wave of migration to Sweden, mainly affecting women from the northern and western parts of Finland. As young women entered the workforce, the care of the elderly increasingly became a problem, resulting in a need to organize a collective arrangement in the field of social motherings. The unpaid caregivers had moved away, and the number of old people continued to increase. Particularly in rural areas, the age structure had transformed radically in Finland. Both the elderly and families with children were in need of municipal home help, but public care was not easily available as far too few homemaker posts were established in the municipalities in relation to the growing demands for help. (Simonen 1990, p. 83.)

In 1956, the National Pension Act was introduced (L 347/1956), and generations were no longer economically bound to each other. By 1971, individuals’ responsibility for taking care of their parents had become outdated, as the result of an act that changed the law on last-resort social assistance (L 275/70). This meant that if social assistance was needed, it cost was no longer taken from the income of the elderly person’s offspring. Since then, parents in a core family have been economically responsible for only their children, no longer for their elderly parents. (Simonen 1990, p. 84.) At its core, the Municipal Home Help Act contains the ideology for social service, accepted in 1966, which extends the provision of public home help to anyone in need. This act brought into force a social procedure: The elderly, along with other groups in need of social care, were allowed to receive public home help, though families with several children were the priority (L 270/66, 1§). Home-helpers were specially trained women. They were usually housewives (homemakers) able to work full- or part-time, and were trained to care for the elderly. Public home help was expanded into a social service and its aim was to offer brief support to people across the different phases of their life cycles. The ideology of social service was related to seeing people as the subjects of their own lives. Briefly, this concept assumed that people were able to maintain their own well-being through their own activities, after temporary support. (Simonen 1990, p. 86.)

The Social Welfare Act (L 710/82) and the related VALTAVA reform (a state subsidy program) (L 677/82) entered into force in 1984. This was a social and health reform. The Social Welfare Act substituted earlier laws as the framework for legislation, replacing the Municipal Home Help Act. According to the Social Welfare Act, each municipality was responsible for organizing social services related to helping or assisting in issues of housing, personal care, child raising and other daily life. Home help was allocated in cases of inability to

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8 Social mothering in an extended area outside homes, i.e. the gender-specific education of the homemaker occupation in Finland. In the 1960s, municipal homemaking, as a system of social care, was transformed into mobile, public care, and homemaking as a social career mediated the needs of care enlarging and extending to elderly care. (Simonen, 1994, Paper presented at the 7th Nordic Conference of Labour Historians, pp.12, 13)
act or due to problematic family situations, burnout, sickness, disability or other similar circumstances. (Simonen 1990, p. 94.)

Historically, in Finland, different families’ generations have not been as dependent on each other as is common in other Western countries. In other words, in comparison to other Western countries, people in Finland are more dependent on help given by the public service system rather than on help from relatives (Simonen 1990, p.84; Haavio-Mannila, 1984, p.150).

From a historical perspective, the homemakers and home-helpers shared the same goals as the current home care service: personal care received at home that is humane and flexible from the client viewpoint. Frail elderly people, who might earlier have been cared for in institutions, now stayed at home with limited or no support and homemakers and home-helpers were able to spend all their time on the more burdensome, difficult clients. (Simonen, 1984, p. 95.)

During the 1970s and the 1980s, public discussion on elderly care contained themes related to ideologies of care that highlighted the needs of the clients and criticized institutional care. These discussions were motivated largely by questions concerning the quality of care. Social care services for elderly people in Finland have historical connections with poverty relief, which is partially the case even today. Neither domiciliary or residential care services for elderly people have never really had any obvious individual legal rights in Finland. During the 1990s, care for the elderly changed when institutional provision was severely reduced, and home care, including home help, were redesigned to cover gaps in residential provision. (Kröger, 2003.)

During the 1990s, these themes shifted toward the organization and structure of elderly care services, highlighting the efficiency and productivity of elderly care. (Mäkitalo, 2005.) In previous years, the discussion on elderly care in Finland had been dominated by doubts about home care being good enough for elderly people. The main question had been whether care at home was enough to maintain a meaningful, agentive life despite functional decline. A secondary question was whether an elderly person’s home is an appropriate place for home care workers (public health nurses, nurses, practical nurses, housekeepers, and home-helpers) to work in.

At the beginning of 2005, the statutes concerning social and health services in Helsinki were combined, providing the mandate for common governance of home nursing and home service functions by the Helsinki Health Board. The approach toward integrating home care across at least 43 municipalities of Eastern Finland (Tepponen, 2009) became consistent. The most common methods of integration in municipalities have been structural: Home care units/functions, boards responsible for home care and health and social welfare departments have been combined. In structurally integrated home care services, Tepponen (2009) recognized integrative processes as multi-professional teamwork and integrative tools as shared client information systems, goals and visions. (Tepponen, 2009.)

In the City of Helsinki, the objective of the change, to create a combined home nursing and home services department, was to integrate the two service functions so that the clients would receive a holistic service in their home environment that would support their agency. The mission of this new organization inside the City of Helsinki Health Centre (called the Department of Home Care) was as follows: “To organize care and services for the elderly, convalescent or chronically ill clients as well as for disabled clients over 18 years of age. In order for them to live safely at home even when their functional ability is decreasing.” The vision of home care in the City of Helsinki was “to enable the client to lead a good life safely at home despite their illnesses and impairment of functional ability.”

Table 3-1 shows how the core work of the home care duties of public health nurses, nurses, practical nurses, housekeepers and home-helpers was formed and managed in the City of Helsinki when the new department was launched in 2005.
Kerosuo et al. (2009) evaluated the combined home care in the City of Helsinki and found that the integration of home care had resulted in the renewal of structures and the redefinition of operational practices at all levels of home care organization. Home help services and home nursing workers who had previously worked in separate organizations and been led by different management began working together in the City of Helsinki Home Care teams, producing home care for their clients at the beginning of 2005.

The home care team’s task was to organize home care encounters with the help of their supervisors in such a way that when visiting the client, each team worker would provide the client with care and services according to their needs. The agreed team members for each client would represent all the different occupational groups (public health nurses, nurses, practical nurses, housekeepers and home-helpers) as relevantly as possible with respect to the client’s care.

Home care operations became more economically efficient through combined home care, although the change in working methods created a substantial learning challenge for the team members and their supervisors. However, Kerosuo et al. (2009) also found that home care clients and close relatives were not
always informed of what kinds of maintenance and support were available for the clients’ functional ability. The elderly clients and their significant others expressed confusion and displeasure regarding the agreed content of home care. Likewise, home care workers commented that the client’s requests and wishes were burdensome because they could not fulfill requests that were not stated in the care plan. It also seemed that making home care plans was sometimes an obligatory task for the workers, and the plans did not necessarily guide the everyday visits and activities at homes very much. (Kerosuo et al., 2009.)

During interviews with Kerosuo et al. (2009), home care workers complained that they only occasionally had time to stop and plan what type of activity would rehabilitate the elderly client or maintain their functional ability and physical mobility. Evaluation of the functional ability of the client in advance or on site was rare because of time pressure. Kerosuo et al.’s (2009) finding of “haste” in home care was similar to the findings of Niemelä (2006), who studied how time pressure in home care work was linked with transformation at work. Time pressure was connected with certain tasks and situations. Home care workers described the predictable and unpredictable time pressure in their work, but their activity model remained constant despite the declining health of the clients and led to their exhaustion. (Niemelä, 2006.)

In her study, Niemelä (2006, p. 75) also noted the lack of time for preventive work and social interaction with clients. Although one of the goals of working with elderly people was to maintain elderly clients’ functional capacity based on the Law on Social Care, according to Niemelä’s (2006, p. 57) interviewees, the involvement of the client in the performance of work tasks slowed down work. The home care employees in Simose’s (1990, p. 157) study in turn described the consequences of rushing at work using the term “helping to become helplessness”. Instead of supporting elderly people in their daily lives and doing things together, employees “did things on behalf” their clients.

When working with elderly home-dwelling people, home care professionals can observe their clients’ resources, including their perspective of everyday activities, a meaningful life, and their support and environment. However, they often only focus on abilities, such as how well their clients are able to get up from bed, go to the bathroom and manage their personal hygiene, make breakfast and other meals. (Turjamaa et al., 2013.) It is for this reason that home care only answers clients’ basic needs: Care professionals make decisions regarding what is best for their clients, performing care-related actions on their clients’ behalf (Chesterman et al., 2001; Eloranta et al., 2008; Turjamaa et al., 2013). In order to support their clients’ mobility and functional capacity during home appointments, care professionals require an ethical and philosophical shift to enable them to support clients in such a way that they maintain their self-care and autonomy (Turjamaa et al., 2013).

People are often caught in a cycle of learned helplessness and internalized stigma that allows them to believe that they are not worthy or capable of active and independent living (Deegan, 1992). This often fits all too well with the internalized script of the home care worker, oriented toward quick and seemingly efficient “doing on behalf of” rather than more interactive and demanding “doing with” the client (Jones, 2007).

Finland, including the City of Helsinki, has one of the oldest populations in Europe and we live in a historical era of four contemporary generations. The population is rapidly aging because Finnish people are living longer. The age of first-time mothers has risen and birth rates have declined.

The baby boomer generation, born between 1946 and 1949, pose a specific challenge to the service system despite the fact that they are likely to age with better health and functional ability than previous generations. (National Institute for Health and Welfare (THL), 2018.)

In Helsinki, the estimate of the medium variant is that the share of over 65-year-olds will rise to 20% by 2032. Among the elderly population of Helsinki, the number of people aged 65–74 has been rising steeply for several years. The number of 75–84-year-olds is increasing gradually, but the strongest period of growth will be between 2018 and 2027. By the end of the 2020s, this group will have increased in Helsinki by over 80% from the current level. The number of people over 85 will grow steadily until 2030, and then grow even more rapidly and almost triple by 2040. (City of Helsinki Urban Facts, 2014.) The share of over-65-year-olds will increase from the current 20% of the population to 26% by 2030 and to 29% by 2060 (THL, 2018).

In 2016, over 9% of the total Finnish population was aged 75 and over; 91% lived at home (in 2015) and about 47% lived alone. In Finland, the reform of the national aging policy and service structures prioritizes home care, aiming to enable elderly people to continue living at home for as long as possible, even until the
end of their lives. (THL, 2018.) The legislation (2012) and aging policy of the Ministry of Social Affairs and Health (MSAH, 2018) integrates aging into its strategy through quality recommendations, programs and projects. The aim of the aging policy is to promote elderly people’s functional capacity, independent living and active participation in society. (Ministry of Social Affairs and Health, 2012; 2018.)

The Act on Supporting the Functional Capacity of the Older Population and on Social and Health Services for Older Persons (2012/980) demands municipalities like the City of Helsinki to support the functional capacity and independent living of the elderly population. Local authorities must draw up a plan of measures to support the well-being, health, functional capacity and independent living of the older population as well as organize and develop the services and informal care needed by elderly people. The plan must underpin living in their own home and measures to promote rehabilitation. (2012/980/5§.)

Furthermore, municipalities must offer home visits that specifically support the well-being, health, functional capacity and independent living of members of the elderly population whose living conditions and life situations are considered to involve risk factors that increase their need for services. (2012/980/12§.) Services must be provided to support the well-being, health, functional capacity, independent living and inclusion of elderly people. In order to prevent further service needs, attention must be paid in particular to services promoting rehabilitation and providing these services in the elderly person’s own home. (2012/980/13§.)

THL (2018) has indicated that elderly people’s services are in transition, and that the focus should be on the quality of care, by prioritizing home care. Access to high quality social and health care services for elderly people must improve, and guidance must be provided in the use of the other services available to them when their impaired functional capacity so requires, in a timely fashion and in accordance with their individual needs (2012/980/1§).

The ongoing major reform planning of the social welfare and health care services system in Finnish municipalities including the City of Helsinki aims to enable living at home by supporting the health and well-being of the elderly.

For the elderly, living at home requires housing solutions and living environments to be age-friendly, accessible and safe; traffic, transport and shopping services to function well and the availability of new kinds of solutions that combine living and care (THL, 2018). The assessment of a person’s functional capacity should involve exploring their ability to cope with their ordinary daily routines in their present housing and living environment, as well as the areas in which the person needs support and help (2012/980/15§).

If the elderly person’s functional ability declines, continued living at home probably requires that the person receives social and/or health care plus rehabilitation services. These should be easily available (around the clock if necessary) (THL, 2018). Together with the elderly person, it should be considered whether they need regular help to support their functional capacity or to cope with ordinary daily routines (2012/980/15§).

The elderly person might need versatile, individually appropriate aids and support for planning and realizing alterations at home. The support/aid that they need might be technological solutions that ensure safety and facilitate contact with others using mobile and electronic services such as remote doctor consultations, and the assistance of family members, loved ones and volunteers. (THL, 2018.)

Competent management and the use of technology play a key role in managing the home care services of an elderly person. They require good coordination and seamless cooperation between public, private and third-sector service providers, family members and volunteers. As the number of elderly people is growing in Finland and in the City of Helsinki, the need for services provided at home is increasing; management has a duty to ensure that the personnel structure and competence of employees correspond to the needs of their clients. (THL, 2018.)

The Status of Elderly People Services follow-up survey (THL, 2016) revealed that home care services have been developed as a result of reducing the institutional care of elderly people. For instance, intensive home care (four home appointments per day) was already available in 63% municipalities in 2016, whereas two years earlier this figure was 47%. The number of home care clients has been increasing in accordance with national objectives, but the human resources/staff members of home care have not increased accordingly. THL (2016)
indicates that the well-being of the staff of services for elderly people has declined. Employees report that, due to time pressure, they are not able to carry out such high-quality work as they would like to.

As the Finnish population is aging, the number of elderly people requiring services is growing. Home care providers and the providers of services for elderly people are faced with the challenge of deciding how to sustain quality while economic and human resources remain the same. Focusing on the quality of care is challenging, as it has many perspectives. From the perspective of an elderly person, home care and other services function well when they adapt to their personal needs and wishes and are not hindered by unclear structures and practices. The way in which the elderly people experience the availability, sufficiency and quality of the services is important. Ultimately, the quality of the services and home care is determined by this. (THL, 2018.)

Therefore, the experiences of receiving and being able to deliver quality of care are the starting points of service provision. From the perspective of the home care staff, high quality care is a product of the meaningfulness and effectiveness of the work, coupled with their own well-being. Employees respond best to their clients’ needs when they are motivated. Well-trained and skilled staff, together with good opportunities for employees to maintain and develop their competencies, play a significant role in guaranteeing good quality of services for elderly people. From the perspective of the service provider, it is essential that services for elderly people are correctly allocated and cost effective. (THL, 2018.)

Recently, on their website, the City of Helsinki described (2018) home care mission similar to 2005:

*Home Care Services (domestic services and home nursing) organize nursing, care and necessary support services in order to maintain health, functionality, and offer care in cases of illness or disorders of the elderly, convalescents, patients suffering from chronic illnesses and disabled people over the age of 18. The objective is to secure the client’s active, safe living at home.*

Home nursing entails nursing and rehabilitation services prescribed by a doctor and provided at the client’s home. They require a doctor’s referral. Clients of the Home Care Services receive the health care and nursing services they need at home if it is not possible to organize these services in any other way.

An individual service and care plan are prepared for each Home Care Service client, which contain the services provided by the home care team. The plan is prepared together with the client and a relative/other trusted person.

Each citizen of Helsinki is entitled to home care and related support services if they need help in daily activities such as eating, washing, dressing, getting out of bed/a chair, walking or visits to the toilet. The first step is to complete a preliminary home care assessment, which can be conducted as a telephone interview. If the interview reveals that the client needs extensive support, a home appointment is made with the client for further assessment.

For temporary home nursing and domestic services, the fee is €15.00 per visit by a doctor or €9.50 per visit by other home care staff. For temporary domestic services, the charged client fee corresponds to that of the temporary home nursing service fee. Helsinki Home Care’s monthly fee for continuous home care is determined by the number of services, the gross income of the household and the size of the family (City of Helsinki, 2018.)

### 3.2 Research site and research projects

#### 3.2.1 Research site

Overall, the research site of my study is encounters between home care workers and their elderly clients. During a home care visit, which is my unit of data collection and empirical analysis, there is interaction between the home care client and their caregiver. This interaction influences the agency of both the home care client and the caregiver, as they encounter each other in the provision and receipt of home care services. The Home Care Department with its care providers and receivers, home care workers and their clients became my research site for 2006–2012.
As explained above, at the beginning of 2005, the laws concerning social services and national health in Helsinki were combined, and the Home Care Department was launched in order to build a combined home nursing and home services department. This meant, as Kerosuo et al. (2009) note, that home help services and home nursing workers who had previously worked in separate organizations and under different management began working together in joint home care teams and producing home care for their clients. The client was visited by one home care worker who provided them with care and services according to their service and care plan. The teams started to organize the home care visits so that they mainly represented the expertise of either home nursing or home services as relevantly as possible with respect to the client’s needs. Creating the new working model meant a great deal of work to build a new organization and a presented great learning challenge for both the workers and supervisors.

The research site of my study took shape while the projects progressed over the six years. My study is longitudinal in character and changes occurred in the research site during this process. Therefore, this study cannot give only a cross-sectional view of one moment; the research site must be understood in the context of the changing timeline of home care (Figure 3-1).

From the very beginning, the Home Care Services’ mission was to clarify which daily living activities the client could and could not manage physically, socially and mentally. In 2005, it was already known that supporting and maintaining elderly clients’ functional capacity and physical mobility affected their agency and enabled social contacts and leisure activities. This knowledge alone did not change behavior (Heath & Heath, 2010, p.31), and completing the mission was not easy. Knowledge attached to practice and the contexts, often taken for granted, requires paying attention to the thinking that practitioners engage with in their actions (Ivaldi & Scaratti, 2016).

The impaired functional ability of elderly people is not a problem as such because there are many ways with which to adapt to it. The solution lies in the point at which impaired functional ability falls below the disability threshold. (Government report on the future, 2005 p.40, pp. 52-53.)

When the client is dependent on the home care worker to maintain and improve their functional capacity and physical mobility, they need active promotion from each home care worker during each home care encounter. In the example in Figure 3-2, the client performs sit-to-stand exercises when asked. He wanted to exercise but needed encouragement to avoid merely sitting in his wheelchair. He reported that his mobility
was deteriorating. The home care workers did not jointly agree on implementing the sit-to-stand exercise and did not coordinate the continuity of care and client activation. Too much responsibility was left to the client and one single worker.

Elderly people in home care have increasingly complex health and social care needs, and the provision of care should be based on these needs. This means that in addition to other needs, more systematic support of physical mobility in daily activities is needed during home care visits. The above client’s case illustrates the need for the development of a more structured approach to providing support for elderly clients’ functional capacity and physical mobility within home care teams.

The education program for home care workers to support elderly people’s functional capacity and physical mobility, with easy-to-administer field tests and a Mobility Agreement template (Appendix 1) have structured this development with concrete ideas and an agreement that aims to promote everyday mobility and exercise when working together with elderly people. I discuss this in more detail in Chapter 5.

In practice, the Mobility Agreement encourages everyday activity and exercise with the aim of improving muscular strength, balance and functional capacity while the home care worker is present. The presence of an employee increases an elderly person’s sense of security. The client in Figure 3-3 (below) performed sit-to-stand exercises eagerly when he was encouraged. He had a somatic illness and memory disorder, and he was afraid of falling. Exercises that improved his balance and muscular strength helped him re-learn old skills and after six months, he was able to leave the house alone using a rollator as the result of the practice agreed upon with the home care workers. He started carrying out everyday chores and was motivated to visit his friends outside the home, which resulted in a better and more active everyday life.
The Helsinki Home Care timeline continued after 2012 with the unified Department of Social Services and Health Care, including home care units in the Hospital, Rehabilitation and Care Services. However, as I mentioned earlier, the scope of my research site agents covered home care workers and their clients in 2006–2012.

Health and functional ability deteriorate with age and this, coupled with the changing age structure have inevitably increased the demand for health and social services in home care. If the society promotes healthy and active aging, a larger share of the population will enjoy good health. The process of functional ability becoming progressively worse can be postponed to a later stage in life and the need for rehabilitative disability services reduced. More adequate resources must be allocated to home care for the elderly, and home care practices must be made more sustainable and effective. (Government report on the future, 2005 p.40, 52-53.)

### 3.2.2 Research and development projects

As mentioned before, in 2006–2009 I spent half my home care manager work time as a team member and researcher in the “Preventing social exclusion among the elderly in home care in the City of Helsinki” development and research project (A.C, Lupaava project; Engeström, Niemelä, Nummijoki & Nyman, 2009). This project (with the working title Lupaava project) started in October of 2006.

The aim of the three-year project was to cultivate potential work practices with a focus on preventing the social exclusion of the elderly population in the Helsinki Home Care system, to co-operate with their original developers – home care workers and project researchers – and to widely spread and activate these functional models in home care. My role in this project was leader and developer-researcher in three (of nine) “task forces” in the developmental areas of “Functional capacity and physical mobility of home care clients”, “Registering, reporting and documentation in home care” and “Home care clients discharged from hospital”. I facilitated existing projects in such a way that they could become social innovations. Between autumn 2006 and spring 2007, the focus of my work was on organizing and fine-tuning the collaboration within these three owner-groups and on starting to identify the target models in the related developmental areas. The cultivation of the potential practices started in autumn 2007 in the cultivating laboratories and continued into 2008. We started spreading the social innovations in 2008 and establishing them in 2009. The evaluation of the results and processes took place during the autumn of 2009.

The approach of this project was to cultivate functional models already in use into social innovations. Social innovations, in this context, are defined as new, repeatable, functional models, which are more defined in scope.
than a complete renewal of the service system, but wider in scope than improvements in individual processes. The target of this project was to spread and activate these functional models after cultivating them widely in home care.

In the “Preventing social exclusion among the elderly in home care in the City of Helsinki” project, the researchers and practitioners developed a new tool called the “Mobility Agreement”. This tool was intended to contribute to the home care client’s functional capacity and physical mobility through physical actions planned and executed with the support of the home care worker. The implementation of such an agreement as a regular element of the core of home care services may be an avenue toward the construction of an expanded shared object and new forms of joint agency in home care.

After the period 2006–2009, co-operation continued between Helsinki Home Care and CRADLE at the University of Helsinki in 2010–2012. During these years, I worked part-time in the “Implementation Conditions of Integration Innovations in Health Care: Organizational Volition and the Voice of the Client” project, observing and interviewing home care clients and employees during or after home care encounters.

The project’s research focused on the implementation conditions of three different extensive integration innovations in Oulu University Hospital’s surgical operating unit, in the City of Espoo health center, and in the City of Helsinki’s home care for the elderly. In Helsinki, the focus was on two integrations: a service palette and a Mobility Agreement. Common to all the innovations was the aim to integrate care and to develop services from the perspective of the client. The implementation of the innovations depended on the formation of organizational volition at different levels, from front-line workers to top management. Therefore, the project brought to the fore the voices of different actors such as the client and patient, worker and service-provider, and administration.

### 3.2.3 The new tool – Mobility Agreement

The lack of shared agency in mobility-related interactions between home care workers and their elderly clients during the home appointments created the need for a new tool to transform encounters.

In the “Preventing social exclusion among the elderly in home care in the City of Helsinki” project, the researchers and practitioners developed a new practice and tool called the Mobility Agreement.

The Mobility Agreement intends to contribute to the home care client’s functional capacity and physical mobility through physical actions planned and executed by means of embedding exercises in daily chores at home with the support of the home care worker.

The Mobility Agreement was designed and implemented as a collaborative tool and a mediating device to facilitate negotiation and co-configuration between the client, the home care worker, and eventually also the other agencies that contribute to the client’s overall home care service.

The implementation of such an agreement as a regular element at the core of home care services has provided an avenue toward the construction of an expanded shared object and new forms of joint agency in home care. The implementation phase was first carried out using a limited number of clients, and later expanded to the whole clientele of home care services in the City of Helsinki.

The task force set up by our project and the Home Care Services of the Helsinki Health Centre designed the Mobility Agreement. The task force focused on the challenge of maintaining and improving the functional capacity and physical mobility of the elderly home care clients.

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9 The “Preventing social exclusion among the elderly in home care in the City of Helsinki: Development of promising practices” (2006–2009) research and development project was a joint endeavor of the Center for Research on Activity, Development and Learning (CRADLE) (University of Helsinki) and the City of Helsinki Health Centre. Yrjö Engeström was the principal investigator of the project; Jaana Nummijoki was a researcher in the project, and a home care manager. 10 The HETE project was part of the Tekes program Innovations in social and healthcare services (SOTE 2008–2015) and was funded by the Finnish Funding Agency for Innovation Tekes (Project No. 2992/31/2009 “Implementation Conditions of Integration Innovations in Health Care: Organizational Volition and the Voice of the Client”, principal investigator Yrjö Engeström) and the Academy of Finland (Project No. 253804 “Concept Formation and Volition in Collaborative Work”, principal investigator Yrjö Engeström). 11 The Helsinki Health Centre’s Mobility Agreement effort was awarded the Mayor’s Prize for Achievement in 2010. The Helsinki Health Centre Strategy and Balanced Score Card document for 2011–2013 states: “Home care clients have a care
The group comprised 11 members from five aged-care support agencies representing both third-sector charity organizations and home care workers. Experts in physical therapy and physical exercise carried out the design phase. The task force started its work at the beginning of 2007, in the Cultivating Laboratory of “Functional capacity and physical mobility of home care patients”.

The Cultivating Laboratory used the Change Laboratory method (Engeström, 2007a). One of the features of this method is bringing the present object of the activity as concretely as possible under the participants’ examination and prompting their critical assessment and questioning of the prevailing conceptions and practices (Virkkunen & Tenhunen, 2010). The Change Laboratory is a method for developing work practices using the people actively engaged in this study’s domain: home care staff are in dialogue and debate among themselves, with their management, with their clients, and last but not least, with the interventionist researchers. The Change Laboratory method facilitates both intensive, deep transformations and continuous step-by-step improvement as a longitudinal process. The idea is to arrange a space in which a set of representational tools is available for analyzing disturbances and for constructing new models of the work activity. (Engeström & Sannino, 2011.)

The task force’s work proceeded according to the phases designed to follow the logic of a cycle of expansive learning (Engeström, 2001). I provide more details about the theoretical framework and research process in Chapters 4 and 5. The task force reviewed the previous and current operating models of home care and discussed the risk of the social exclusion of elderly people in these operating models.

The task force found that the provision of support for elderly people’s functional capacity and physical mobility was not a core service of home care in Helsinki. Because of this, attempts to deal with mobility and functional capacity disrupted the home care worker’s timetable planning. The worker typically did not know what the relevant services were, what they should provide, and how such services might fit into their work schedule. Correspondingly, the client typically did not know that services were available to support functional capacity and physical mobility, what they should pay for, and what their own responsibilities might be concerning functional capacity and physical mobility.

The aim of the Mobility Agreement is to help elderly home care clients live the kind of everyday life they want, both now and in the future. It is a collaborative agreement on objectives to ensure functional everyday life; a concrete plan for the home care client to achieve objectives and monitor progress.

The following factors are taken into consideration in the preparation of the plan: What kind of hobbies and activities has the client previously enjoyed? What daily chores would the client like to do, and which activities do they find difficult to manage. It is important to also discuss with the client what activities inspire them, and to ask: “Do you move about outside your home?” and “What is important to you at home?” The Mobility Agreement interview, observation and test form is included as Appendix 1.

The Mobility Agreement has also been implemented with the help of a booklet (Age Institute12) that illustrates the typical exercises and appropriate ways of doing them. Although the Mobility Agreement is documented in textual form, it is primarily an embodied agreement that is re-enacted during regular encounters, through joint physical actions, and accompanies verbal and gestural exchanges. The Mobility Agreement requires the home care workers to be able to negotiate and enter into a dialogue with the client as well as a client-activating approach in home care work. It also requires intensive team discussions between employees working together with the same client. From the client’s perspective, it requires participation, choice making and the ability to negotiate their involvement during and between the home care appointments.

The Mobility Agreement includes:

- A home exercise program including exercises such as sit-to-stand and balance exercises,
• Stair walking,
• Chores at home such as watering plants,
• Recreation, for example, with a volunteer,
• Help and information on group exercises.

The Mobility Agreement is recorded as part of the care plan, and it can be carried out independently and/or with friends and significant others. It is essential during the home care appointment to discuss what the client’s share is and what the home care worker should do at the client’s home.

In practice, the Mobility Agreement encourages everyday activity and exercise with the aim of improving muscular strength, balance and functional capacity. It may include exercise that improves balance and muscular strength, re-learning of old skills, carrying out everyday chores and activities and hobbies outside the home. Figure 3-4 depicts the Mobility Agreement as aiming to promote everyday mobility and exercise. It includes the basics of an agreement that the home care client and their caregivers should make together, to encourage the client to use their personal resources. It describes how continuous assessment of the client’s resources is evident on the basis of analysis and the Mobility Agreement decisions and schedule, and should be followed-up on the basis of recording and reporting in order to facilitate decisions regarding further plans. Importantly, consultation is always possible, i.e. the home care worker consults the treating physician and/or physical or occupational therapist if needed, with their elderly client.

The Mobility Agreement enables home care workers to promote the client’s mobility by means of exercises embedded in daily chores at home. Implementation of the Mobility Agreement was continued by the home care organization after the home care workers, together with physical and occupational therapists, established coaching teams (trainers) for home care in each local area. They first studied how to use this new collaborative tool and intensively took part in developing the implementation process. After this, these trainers coached the home care workers from all the home care teams to work as change agents in producing, monitoring and evaluating the Mobility Agreements with their home care clients. Figure 3-4 represents the Mobility Agreement as the chain of the objectives of promoting everyday mobility and exercise.

The basic idea of creating the Mobility Agreement with the elderly person is encouraging the client to use the personal resources in order to perform his or her functional capacity and physical mobility as daily agency. The picture on the next page (Figure 3-4) shows how the support of the home care worker is recommended to progress by assessing, analyzing and agreeing with the home care client to utilize his or her functional resources when reactivating him- or herself. The shared analysis and continuous shared assessment between the home care worker and client is the issue of elderly person getting active and performative in daily chores - depicted below as Mobility Agreement decisions and schedule (Figure 3-4).
Figure 3.4 Promoting everyday mobility and exercise as a chain towards Mobility Agreement

- an agreement made by a client and a Home Care staff member with the objective of promoting everyday mobility and exercise

Encouraging the client to use personal resources

The objective of home chores and physical exercises is to improve muscle strength, balance, physical mobility and functional capacity.

The Home Care staff member ensures that the agreed mobility exercises are carried out and monitored during home visits.

- Carrying out daily chores as independently as possible
- Everyday mobility, home exercise, outdoor walks, group exercise

Continuous assessment of the client’s resources

Resource analysis

- Data collection
- Self-assessment
- RAVa
- MMSE

Everyday mobility agreement

Safe mobility is a prerequisite for the quality of living and management of daily tasks in the life of an elderly client.

Daily tasks, like getting up from a chair and walking up and down stairs, require adequate muscle strength and balance.

Suitable forms of exercise invigorate, improve the mood and maintain muscle strength, mobility and functionality.

Home Care will investigate the client’s mobility and need for recreation and ensure the availability of the required care equipment.

Resource assessment

- Interview and testing
- RAI HC: medication, nutrition, mobility

Mobility agreement

Exercise that develops muscle strength and balance decreases falling accidents among the elderly by 15–50%.

(Manty et al. 2007)

The need for help in even one basic daily activity is a significant predictor of the need for institutional care.

(Laukkanen et al. 2008)

In bed rest, muscle strength may decrease by 5% per day.

(Rantamäki and Sipilä 2003)

When necessary, the responsible nurse consults the treating physician and/or therapist and/or local everyday mobility change agent.

Recording and reporting

Pegasos/care plan, activity:

Mobility agreement decisions and schedule

Follow-up

Mobility agreement decisions

Follow-up

Decisions on further plans

Mobility card
4 Theoretical framework

In this Chapter, I present the concepts of CHAT that form the theoretical framework and the developmental methodology for this study. This chapter reveals how my study is empirical in its approach, and is conducted as an ethnographic but also strongly as a longitudinal formative interventionist study.

“One ambitious interventions require an ambitious theory. At the core of any intervention is the question of development. (…) research makes visible and pushes forward the contradictions of the activity under scrutiny, challenging the actors to appropriate and use new conceptual tools to analyze and redesign their own practice.” (Engeström, 2000, pp. 151, 165.)

The theoretical unit of analysis in this study consists of the activity systems of the home care worker and their elderly client as a pair. The primary empirical unit of analysis between two activity systems is the home care appointment during which the home care worker meets their aged client. These appointments, critical encounters, are analyzed within an activity theoretical framework with a particular focus on “local qualitative reorganization or re-mediation of activity systems, attempting to solve their inner contradictions” Engeström (2005, p. 194).

4.1 The concept of activity

Activity theory proposes that activity is collective and is mediated by tools and signs. It is oriented toward an object. (Engeström et al., 1999.) Engeström (1987) abstracts the structure of human activity (Figure 4.1) into the “triangle model”, known as the activity system, where the subject refers to the individual or sub-group whose agency is chosen as the focus in the analysis.

“The object-oriented and artifact-mediated collective activity system is the prime unit of analysis in cultural-historical studies of human conduct” (Engeström 1999, p. 3; 2015, p. xvi).

The object refers to the “raw material” or “problem space” toward which the activity is directed, and which is molded and transformed into outcomes with the help of physical and symbolic, external and internal mediating instruments, which include both tools and signs. The community comprises multiple individuals and/or sub-groups who share the same general object and who construct themselves as distinct from other communities. The division of labor refers to both the horizontal division of tasks between the members of the community and the vertical division of power and status. The rules refer to the explicit and implicit regulations, norms and conventions that constrain the actions and interactions within the activity system. (Engeström, 1987.)
According to Mäkitalo’s interpretation (2005, p. 102), the activity system model outlines the unit of analysis for the empirical studies of human behavior within the activity theoretical framework. He suggests that a local community, which works upon a common object with shared tools, rules and division of labor, is best to analyze human behavior. The argument is that individual phenomena are best understood and explained at the level of activity, and that cultural or societal influences affect individuals and communities through the introduction of new cultural mediators of the activity systems.

Leont’ev defined activity as a set of processes that realize a person’s actual life in the objective of the world surrounding them, their social being in all the variety of its forms (Leont'ev, 1977). Thus, society, or community, is central to Leont’ev’s concept of activity, which is defined using the concept of object. The object determines the possible goals and actions functioning as the motivational force driving the activity forward. The object of activity is twofold in that it is both something given and something projected or expected (Leont’ev, 1977).

Goal-directed actions give actual or physical form to activities. The same action may carry out several activities and may transfer from one activity to another. What separates one activity from another is its object. The object of an activity is its true motive; the concept of activity is connected to the concept of motive. One motive may also have expression in different goals and actions. These actions are performed in variable concrete circumstances. The methods with which one action is accomplished are called “operations”. Actions are also related to conscious goals. Operations are rarely consciously reflected by the subject. (Engeström 1987, pp. 66–7.)

According to Leont’ev (1978), the main factor that distinguishes one activity from another is the difference between their objects. An activity’s object gives it a direction and is its true motive. A motive may be either material or ideal. It can be present in perception, in the imagination or in thought. Activity does not exist without a motive: “Non-motivated” activity is not an activity without a motive, but an activity with a subjectively and objectively hidden motive. (Leont’ev, 1978.)
Human labor, the basic form of all human activity, is co-operative from the very beginning. We may speak of the activity of the individual, but never of individual activity; only actions are individual. Furthermore, actions are carried out in variable concrete circumstances. (Engeström, 1987.)

In the structure of human activity (Figure 4-1), the home care worker is the subject of their work in the field of elderly home care, and the initial object is a duty or care task in which the elderly client’s need makes the home appointment happen. The initial object requires interpretation and conceptualization of being a human person or a person’s need. The object has a personal sense and cultural meaning and goes through transformations until it stabilizes as a finished outcome. In home care, this outcome might be, for example, an ordered meal for the elderly client.

In the third-generation activity theory, which involves two activity systems (Figure 4-2) the home care client is the subject of his or her daily life activity in the field of elderly home care. The initial object of the home care client is ambiguous and requires interpretation and conceptualization. The object takes on a personal sense and cultural meaning and goes through transformations until it stabilizes as a finished outcome. In home care, this outcome might be, for example, an ordered meal for the elderly client, in which the necessary ambiguity and interpretation of the object are resolved by the home care worker and home care client.

Leont’ev (1978) made the following observation: “In activity, there does take place a transfer of an object into its subjective form, into an image; also in activity a transfer of activity into its objective results, into its products, is brought about. Taken from this point of view, activity appears as a process in which mutual transfers between the poles ‘subject-object’ are accomplished.”

Engeström (2006b) observes that the process of object transformation is only possible by means of mediating artifacts; both material tools and signs. This means that the home care worker could use mobility planning together with the client as a tool and a basis for negotiating with the client about functional capacity and physical mobility. This process may lead to an entirely new mediating artifact. The lower part of Figure 4.1, the structure of human activity (Engeström, 1987, p. 78), calls attention to the work community and to the elderly client’s family and friends, both of which the home care worker and the home care client are members. Within the community, the members negotiate their division of labor, including the distribution of rewards. The temporal rhythms of work and daily life, the uses of resources, and the codes of conduct are continuously constructed and contested in the form of explicit and implicit rules.

For home care workers and their clients who are involved in this complex organized activity, the first step is to make sense of their own work and then of the participation in their own daily life, as the collective activity...
system represents an expansive challenge of “visibilization” (Engeström, 1999b). The second step of expansion involves the visible opening up, reconstruction and integration of the activity systems of the home care worker/s and home care client/s. This requires extending the unit of analysis to include these two interconnected activity systems. As interpreted for my study interests in Figure 4-2, the triangle on the left represents the activity system of the home care worker and the triangle on the right represents the activity system of the home care client. Forming an object that is shared between these two is a crucial challenge. Object 1 in Figure 4-2 is the initial problem “raw material” of the home care encounter process, and Object 2 represents a vision of the object. Object 3 stands for the potential common ground or synergy between the two perspectives. In future home care terms, my aim in this study is to approach the perspective of the home care client as a home care worker’s object which may then become the subject of the home visit. The object thereby becomes shared between the home care worker and their client (the elderly person’s functional capacity and physical mobility).

However, if the contradiction between the efficiency of the home care worker (doing their job) and the potential effectiveness of home care (having maintained functional capacity and reduced the social exclusion of elderly people) remains. The development of a shared object (which allows the home care client and home care service to construct common goals concerning the clients’ functional capacity and physical mobility) will become merely a source of frustration rather than a shared object mediated by a useful tool.

The process of expansive design is very demanding, as it requires successive shifts of perspective in the critical transitions between design and use. Several other considerable issues remain in my study field concerning how home care workers are motivated to work when their value systems are different and how this fits the picture and contributes to team dynamics.

Figure 4-2 leads to the central point of my study: Evaluating, analyzing and developing not just the activity systems of the elderly client and the caregiver, but also the impact of the interaction between these two activity systems and the agency of the individuals involved in the receipt and provision of home care services.

Activities do not change in a linear way; they change in cycles in which development and transformations move through contradictions (Engeström 1999a, pp. 32–35), and new forms of activity appear through such cycles.

As Mäkitalo (2005, p. 99) has suggested, entities we take for granted, such as hospitals, schools and nursing homes, as well as home care practices, have been created and continue to be recreated in cycles of change. In home care terms, mobility planning should form the basis of a new cycle of home care practice and negotiation with the clients concerning their functional capacity and physical mobility.

In other words, mobility planning occurs when the home care client, initially a home care worker’s object, becomes a subject of the home visit, and the elderly person’s functional capacity and physical mobility becomes the shared object of the client and the home care worker. However, the home care managers and workers themselves must be aware of the contradictory nature of the present home care work activity and relate it to a future form of the work activity. Home care routines have to be understood more broadly and more generally as including life circumstances in the concrete activity. By this, I mean that the given form of work cannot be changed without consideration of the broader life circumstance.

As Engeström (1987) pointed out, a transformation such as this requires a new kind of learning activity – mastery of expansion from actions to a new activity. A practitioner who is passionate about his or her work can develop a personal relationship with the object. At the same time, the object connects practitioners who are or have been involved in the drive of the same or similar object. The drive of an object is both an individual and collective relational journey. (Sannino & Engeström, 2016).

As I explained above, according to Leont’ev (1978), the object of an activity is its true motive. The difference between objects separates one activity from the other. Behind activity, there is a need: “The meeting of need with object is an extraordinary act” (Leont’ev, 1978, p. 54). An activity with motive emerges. Hence, the concept of activity is connected with the concept of motive. (Leont’ev, 1978.)

Without consideration of the overall collective activity, an individual’s action often seems “senseless and unjustified” (Leont’ev 1981, p. 213). In the context of individual actions, it is notable that the motive of collective activity becomes important for the individual often just by means of personal (individual) sense
Engeström (2016, p.27), Leont’ev (1978, p.171) pointed out that: “sense expresses the relation of motive of activity to the immediate goal of action,” and according to both Engeström (2016, p. 41) and Leont’ev (1978, p.186), motives cannot be taught; they have to be nurtured by developing “the content of actual vital relations” of individuals.

Engeström (2001) crystallizes three generations in the evolution of the prime unit of analysis within CHAT. The first generation, based on Vygotsky’s work, centers on mediated action as a unit of analysis (see Zinchenko, 1985). The first-generation unit of analysis introduces the concepts of subject, object and the mediating artifact as constituents of action.

The second generation, based on Leont’ev’s (1978, 1981) work, takes the collective activity system as its prime unit of analysis, adding the concepts of community, rules and division of labor, as well as the sub-processes of production, distribution, exchange and consumption, and finally also sense and meaning. Thus, activity theory provides a unit of analysis, that includes culture and history, and is both situated and contextual.

According to Engeström (2008a), activity theorists in many parts of the world are increasingly focusing on interactions among two or more activity systems, that have a partially shared object (Figure 4-2). This has led to the third-generation model, which goes beyond the interplay between action and activity. It introduces the concepts of multi-activity field and boundary zone.

An important aspect of the activity-theoretical units of analysis is the constant movement between the long historical time perspective of object-oriented activity systems and the relatively short time perspective of goal-oriented actions. “Activity systems are driven by communal motives that are often difficult to articulate for individual participants. Activity systems are in constant movement and internally contradictory.” (Engeström, 2000b, p. 960).

Development is understood as qualitative transformations by expansive reconceptualization of the object and motive of the activity in daily work actions, in deviations from the prescribed course of actions and in everyday innovations (Engeström, 2008a). This perspective is crucial for transforming work practices in home care.

Third-generation activity theory offers a conceptual framework for the production of the expanded object of mobility and functional capacity in my study. However, this is only the case if the shared object appears during the mobility-related interactions between home care workers and their elderly clients concerning the client’s functional capacity and physical mobility.

4.2 Contradiction

In activity theory, contradictions play a central role as sources of change and development. Contradictions are not the same as problems or conflicts. A contradiction is a fundamental philosophical concept that should not be considered the same as paradox, tension, conflict, dilemma or double bind. Contradictions are historical; therefore, they must be traced through their real historical development and identified through their manifestations. Contradictions are accumulated historically as structural tensions within and between activity systems, and each activity system is constantly working through tensions and contradictions within and between its elements. Contradictions manifest themselves as disturbances and innovative solutions. An activity system is in this sense a virtual disturbance- and innovation-producing machine. (Engeström, 1987; Engeström & Sannino, 2011, p. 369, 371.)

Engeström (1987) suggests a classification of four different levels of contradictions in a network of human activity systems (Figure 4-3) Level 1: A primary inner contradiction (double nature) within each constituent component/element of the central activity. The primary contradiction of all activities in the socio-economic formation of capitalism is that between the exchange value and the use value within each element of the activity system. (Engeström, 1987: 87, pp. 89–90.) In home care, the primary contradiction takes the form a tension between the short-term efficiency (exchange value) and long-term effectiveness (use value) of the service.
Level 2: When an activity system adopts a new element, for example, when home care workers try to implement the new Mobility Agreement tool, this may lead to a secondary contradiction in which some existing elements (for example, the rules or the division of labor) collide with the new element.

Level 3: A tertiary contradiction appears when a culturally more advanced object and motive, such as the client’s functional capacity and physical mobility, is introduced into the activity.

Level 4: Quaternary contradictions are those that emerge between the changing central activity and its neighboring activities in their interaction. (Engeström 1987: pp. 88, 90.) In home care, neighboring activity systems include for example primary care health centers, hospitals and centers that offer daytime activities for elderly.

Figure 4-3 Four levels of contradictions in network of human activity systems (Engeström, 1987, p. 89)

Contradictions are not only troublesome features of activity. They are also “the principle of its self-movement and (...) the form in which the development is cast” (Ilyenkov, 1977, p. 330). New qualitative forms of activity emerge as solutions to the contradictions of the previous form of activity, initially in the form of “invisible breakthroughs”, and innovations. (Engeström, 2004.)

During a typical home appointment before the introduction of the Mobility Agreement, the object of the home care client was often in contradiction with the object of home care (see Figure 6-4). Maintaining and improving the physical mobility of the client was not a core part of the daily tasks in the early days of the new Home Care Department in 2005–2007, this demanded a reconceptualization of home care work.
Figure 4-4 The relationship between home care service and home care client in Helsinki in early days of new department, 2005–2007 (Nummijoki & Engeström, 2010, p. 51).

As we can infer from Figure 4-4, during a home care appointment, the object of the home care client was in contradiction with the object of the home care worker. During the encounter, time was mainly spent on helping the client bathe and/or go to the toilet, feeding, administering medications, and informing the client about other possible services. Fulfilling these tasks took up all the time of the home care workers, leaving no opportunity for them to focus on the clients’ life needs, such as supporting functional capacity and physical mobility.

4.3 Zone of proximal development

Vygotsky’s concept of the zone of proximal development is one of the important roots of the theory of expansive learning (Engeström & Sannino, 2009). Vygotsky (1978, p. 86) defines the zone of proximal development as “the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers.”

Engeström (1987) redefines Vygotsky’s individually oriented concept to deal with learning and development at the level of collective activities. A full cycle of expansive transformation is a collective journey through the zone of proximal development of the activity, understood as the space for expansive transition from actions to activity (Engeström, 2000a; 2018, p. 17):

*It is the distance between the present everyday actions of the individuals and the historically new form of the societal activity that can be collectively generated as a solution to the double bind potentially embedded in the everyday actions* (Engeström, 1987, p. 174; Engeström, 2015, p. 138).

The zone of proximal development emerges as in the form of disturbances, struggle and experimentation. The processes of struggle and experimentation may lead to expansive transformations. The journey within the
zone of proximal development can also involve open resistance, regression and marginality. (Engeström, 1996.) The motive for change efforts arises from analyzing the contradictions and possibilities in the object and from projecting a new historical form of the object as an expansive solution to the present contradictions. This kind of projection means sketching a zone of proximal development for the collective activity (Figure 4-5).

The zone of proximal development is a transitional area of change and development between present activity and visions of the future, which are generated solutions to the problems, disruptions and gaps embedded in everyday actions (Engeström, 1987, p. 174).

In 2005–2012, the home care workers and their supervisors in Helsinki struggled through a developmental transformation in their activity systems, moving across the zone of proximal development. The Mobility Agreement in the home care process was designed during the years 2007-2009 and implemented in 2010–2012 (Figure 4-6).
When they implement the Mobility Agreement, home care workers, with their clients, create paths leading to an increased capability to effectively move in the zone of proximal development. The zone of proximal development is an enacted space with dominant paths and boundaries made by others, with histories and power invested in them. When new practitioners enter the zone, they have critical encounters with existing paths. They adapt to the dominant paths and struggle to go beyond them. The new paths expand the collective shape and understanding of the zone of proximal development, thus also to new boundaries. When the practitioners reach a certain level of mastery of the zone of proximal development, they begin to have conflicts with the boundaries of the zone and to break away from it, toward new zones of proximal development. (Engeström & Sannino, 2009.)

4.4 Germ cell

According to Ilyenkov (1982), Marx’s analyses of capitalism identify commodity as the “germ cell” that carries the inner contradiction between use value and exchange value. The germ cell is an initial abstract in that contains the functional relationship at the core of a complex system. Its whole specificity lies in its undeveloped, though universal and abstract, basic, “cellular” formation, developing through contradictions and generating other, more complex and well-developed formations. (Engeström & Sannino, 2016; Ivaldi & Scaratti, 2016).

Davydov (1982) pointed out the importance of the germ cell in the method of ascending from the abstract to the concrete. He noted that the construction of the germ cell is made possible by transforming the initial problematic situation and modeling the emerging idea. (Davydov, 1982, p. 42.) Ascending from the abstract to the concrete, is a method for grasping the essence of an object by tracing and reproducing the logic of its development and its historical formation, through the emergence and resolution of its inner contradictions.

Ivaldi and Scaratti (2016) studied the germ cell and positioned it in problematic situations to promote organizational learning and change in order to move on from problematic situations. They describe the formation of the germ cell as a process “that opens possibilities for subjects to recognize and reflect on the recurrent and taken-for-granted practices and concepts and give sense to them by making the inner contradiction and the ways for managing it visible.”
Ascending from the abstract to the concrete means practical transformation and experimentation in a problematic situation. It requires the identification and modeling of a germ cell behind the problematic situation. Testing the germ cell in its possible manifestations and evaluating a theoretically mastered solution to the initial problematic situation is essential when ascending from the abstract to the concrete. Through this method, the learners give meaning to concrete manifestations by theoretically abstracting them in a simple unit that is able to explain the whole. (Sannino, 2011.)

A germ cell is gradually enriched and transformed into a concrete system of multiple, constantly developing manifestations. Its initial simple idea is converted into a complex new form of practice. The germ cell is expansive in that it opens up possibilities of explanation, practical application, and creative solutions. (Engeström & Sannino, 2016; Engeström 2018.)

Engeström & Sannino (2016) point out that little is known about the ways in which people construct germ cell abstractions that lead to ascending to concrete and powerful theoretical concepts. Germ cells seem to be easiest to identify after the fact, when they have already shown their potential in practice when undergoing transformations. A germ cell is so commonplace that it is often taken for granted and goes unnoticed. It also opens up a perspective for future developments. I come back to this theoretical concept in more detail in Chapter 6.

4.5 Double stimulation

Vygotsky's principle of double stimulation (Vygotsky, 1987, p. 356) refers to a mechanism in which human beings can intentionally break out of “meaningless situations” and transform them. In other words, they break out of a conflicting situation and change their circumstances or solve difficult problems (Sannino, 2011).

Double stimulation includes two groups of stimuli. One group of stimuli has the function of a task toward which the activity of the experimental subject is directed. The other stimulation takes on the function of signs which helps to organize the activity. (Vygotsky, 1931/1994, p. 208.)

The principle of double stimulation is the core of concept formation. Double stimulation starts when a person experiences a conflict of motives in a certain situation. The situation is the first stimulus.

The person seeks to resolve the conflict by using an intermediate artifact filled with specific meaning, the artifact becomes a sign that is the second stimulus. It is essential that the artifact is relevant to the individual and that he or she can make use of it in structuring the situation. A meaningful second stimulus enables a human to conceptualize a conflict situation and to plan accordingly. It enables the formation of volition and agency. (Vygotsky, 1987.)

Vygotsky built his interventionist principle of double stimulation on insights from experimental research. Instead of giving the subject a task to solve, Vygotsky gave the subject both a demanding task to be tackled (first stimulus), and a “neutral” or ambiguous external artifact (second stimulus) that the subject could fill with meaning and turn into a new mediating sign that would enhance his or her volitional actions and potentially lead to reframing the task. (Engeström, 2016, p. 43.)

Sannino (2015) examined double stimulation thoroughly and concluded that the principle of double stimulation is a path to volitional action, involving conflicts of motives as a key component. Double stimulation is the core of a strategic setup that human beings establish to affect their behavior and the world around them. (Sannino, 2015, pp.1–2).

Double stimulation has three main characteristics: (a) a given, self- or co-constructed conflictual problem, also referred to as the first stimulus; (b) an auxiliary artifact provided by the interventionist researcher(s) or created by the participants themselves as a second stimulus—that is, a neutral artifact turned into a sign; and (c) gaining of control by the participant over his or her behavior and a new understanding of the problem. (Sannino, 2011, p. 592).

Sannino (2015) constructed a model of double stimulation (Sannino, 2015 p. 10, Figure 4-7 below). The model depicts how volitional actions such as forming the decision to act with the help of an auxiliary motive
(e.g., the clock striking at a certain time, Apparatus 1) and implementing this decision (Apparatus 2) occur through phases that involve conflicts of motives and second stimuli.

Apparatus 1 involves four different phases. In Phase 1, a person meets conflicting stimuli. For instance, a waiting experiment participant is asked to take part in an experiment but experimenter leaves (first stimulus). In Phase 2, conflicting stimuli activate motives which themselves are in conflict with one another. In the waiting experiment, the conflicting motives may be (1) having committed to stay in the room, and (2) wanting to leave.

Phase 3 depends on Phase 2, as the conflict of motives provides the impulse to select a stimulus and to change it into an auxiliary motive aiming to overcome the conflict. The participant in the waiting experiment may select the clock (second stimulus), which acquires the significance of an auxiliary stimulus, forming the decision to leave when the clock strikes a certain time.

Phase 4 consists of establishing a connection between the decided reaction and the direct appearance of the auxiliary stimulus, when the clock strikes the determined time, for instance. According to Vygotsky (1997, 215), phase 4a refers to “the real or actual conflict” of stimuli. In the waiting experiment, the actual conflicting stimuli in this phase may be the clock striking at the determined time and the person’s fear or unwillingness to act in a way that breaks the initial commitment.

Phase 4b is the “closure of the connection between the given stimulus and the reaction” (p. 215), which consolidates the decision, and which will be followed afterwards in Apparatus 2. In Apparatus 2, the decision may be implemented as if the person was following instructions, with the difference, however, that here the person him-/herself has intentionally created the instruction. (Sannino, 2015; Engeström & Sannino, 2016)

Sannino (2011) found that the connection between double stimulation and volition is a process that traverses all higher mental functions. An individual can obtain the power to use external resources to determine his or her own behavior (Sannino, 2011). The role played by conflicts of motives requires further research, although conflict of motives seems to be a defining component of double stimulation (Sannino, 2015).

According to Sannino (2015), the principle of double stimulation discloses the way in which human behavior is regulated, with a specific connection to volition as a characteristic of higher mental functions. The notion of double stimulation comprises to a range of phenomena, as it refers to practices used by people in everyday life to undertake difficult actions with the help of culturally available artifacts used to gain control, i.e, to accomplish volitional action. (Hopwood & Gottschalk, 2017.)
The study of Sannino and Laitinen (2015) provides empirical support for the inclusion of conflicts of motives in double stimulation for will formation. They tested the Vygotskian model (Figure 4-10) of the emergence of volitional action in a waiting experiment and concluded that the model can significantly contribute to today’s discussions of ways in which to support transformative agency.

The concept of double stimulation (Vygotsky, 1987; Sannino, 2015) thus provides a framework for understanding the furtherance of volitional action. Hopwood and Gottschalk (2017) found that promoting double stimulation may place complex demands on professionals. The ability to direct one’s own behavior by restraining or replacing impulsive actions is crucial.

In Hopwood and Gottschalk’s study (2017), professionals worked simultaneously in two related fields: getting the parent to act using new auxiliary stimuli and getting them to think differently about the object. They noticed that the interactions between a professional nurse and a new mother illustrated how an absence of auxiliary stimuli may catch parents in conflicted situations. However, they also noticed that it is the conflict of motives that unleashes both the need for and power of expanding the object, opening up the possibility of new action. (Hopwood & Gottschalk, 2017.)

The model of double stimulation shows how volitional action emerges from a conflict of motives with the help of an assistant stimulus, an artifact filled with meaning and turned into a sign. Ascending from the abstract to the concrete explains how individual volitional actions of breaking away from the old grow into a new concrete collective activity with the help of the direction and vision crystallized in the germ cell abstraction. (Engeström et al., 2014.)

In the home care context, actions of volition and conceptualization attempts in which the home care client and employee jointly participate are keys to uncovering possible double stimulation. The key characteristics of double stimulation in an everyday work activity facing transformations are dealt with more thoroughly in Chapter 6 of this study. There I present a conceptual model of a critical encounter as a potential site of double stimulation in home care work where the Mobility Agreement serves as a support for double stimulation and volitional action.

Engeström and Sannino (2016) suggest that double stimulation and expansive learning are dependent on one another, and double stimulation may be seen as the generating mechanism in expansive learning. Expansive learning is formation of transformative agency, a central quality and the outcome of expansive learning. It is also formation of new future-oriented theoretical concepts; they become concrete when learners take volitional actions to change their circumstances.

4.6 Expansive learning

The theory of expansive learning (Engeström, 1987) involves a cyclical process (Figure 4-8) that ideally includes the collective learning actions of (1) questioning, (2) analysis, (3) modelling a new solution, (4) examining and testing the new model, (5) implementing the new model, (6) reflecting on the process and (7) consolidating and generalizing the new practice. When learning is expansive, the learners construct and implement a new, wider and more complex object and concept for their activity (Engeström & Sannino, 2010).

Expansive learning begins with practitioners questioning the existing order of their activity. Collaborative modeling follows. Finally, the new model for creating a new collective activity system is implemented. The theory of expansive learning helps practitioners generate learning that grasps the pressing issues faced by the activity systems of their organizations.

Expansive learning is an application and further development of the principle of ascending from the abstract to the concrete. The learning challenge typically stems from contradictions that need to be resolved by means of constructing a germ cell not initially known by the learners themselves. (Engeström & Sannino, 2010). It is crucial to identify the original contradiction that causes the manifested problematic situations (Ivaldi & Scaratti, 2016).
Expansive learning generates a new concept for the activity by following the logic of ascending from the abstract to the concrete. Its aim is to work out a germ cell abstraction that provides the basis for the stepwise generation of multiple concrete implementations. (Engeström et al., 2012.)

(...) the theory of expansive learning must rely on its own metaphor: expansion. The core idea is qualitatively different from both acquisition and participation. In expansive learning, learners learn something that is not yet there. In other words, the learners construct a new object and concept for their collective activity and implements this new object and concept in practice (Engeström 2016, p.37).

In expansive learning, ascending from the abstract to the concrete is achieved through specific epistemic or learning actions. These actions form an expansive cycle or spiral. Figure 4-8 depicts the ideal cycle of expansive learning (Engeström & Sannino 2010, p. 8). The process of expansive learning is construction and resolution of developing contradictions (see Section 4.2 of present study) in the activity system. If the contradictions are not successfully resolved, the expansive cycle may rigidify, or development may regress to the preceding phase. (Mäkitalo 2005, 101; Engeström, 2005, 14.)

In reality, expansive learning probably never cleanly follows the ideal-typical cycle. The model is a conceptual device derived from the logic of ascending from the abstract to the concrete. Every time one examines a learning process with the help of the expansive learning model, one should test, criticize and enrich the theoretical ideas of the model. (Engeström & Sannino, 2010.)

The first learning action of the expansive cycle is that of questioning (1). It involves criticizing or rejecting some aspects of the existing practice and wisdom. In this phase, people at the workplace may debate the purpose of their work (their object), their working methods or forms of co-operation, but usually there is no clear direction of change yet. Change moves forward when disturbances or breakdowns within the work processes begin to accumulate.

The second action is that of analyzing the situation (2). Analysis involves mental, discursive or practical transformation of the situation in order to determine causes or explanatory mechanisms. Analysis evokes “why?” questions and explanatory principles. The type of analysis is historical-genetic; it seeks to explain the situation by tracing its origins and evolution. A complementary type of analysis is actual-empirical; it seeks to explain the situation by constructing a picture of its inner systemic relations. Analysis is needed when people at the workplace cannot continue as they used to, but when there is no alternative way of working yet. This can be called a double-bind situation.

The third learning action is that of modeling a new solution (3), i.e., the newly found explanatory relationship in some publicly observable and transmittable medium. This means constructing an explicit, simplified model of the new idea that explains and offers a solution to the problematic situation. This phase may consist of three elements: (a) finding a springboard, (b) formulating the general instrumental model and its derivative models, and (c) constructing a microcosm for taking over the responsibility of further elaborating the instrumental models and turning into new forms of practice.

When the work community is able to collectively construct a new, expanded object and motive, the cycle advances to its next action. This fourth learning action is that of examining the model (4), running, operating and experimenting with it in order to understand its dynamics, potentials and limitations.

The fifth action is that of implementing the model (5) by means of practical applications, enrichments and conceptual extensions. During this phase, the work community makes its first attempts to work with the new object and with a new motive. At this point, difficulties arise because features of the previous work activity conflict with those of the new one. These difficulties manifest tertiary contradictions between old and the new model.

After this, the activity faces another challenge: reflection (6) on the new model in order to generalize it through negotiations with neighboring activity systems. This involves quaternary contradictions, which have to be resolved before consolidation (7) can take place; in other words, the new model starts to consolidate and eventually becomes the dominant model. The sixth and seventh actions are those of reflecting on and

As we can see, contradictions, which I dealt with in Section 4.2, appear in different phases of expansive learning (see Figure 4-3). The primary contradiction within each component of the activity system generates the first learning action, called questioning (1). Secondary contradictions between two or more elements (e.g., between a new object and an old tool) generate the second, third and fourth learning actions of analysis (2) modeling (3) and examining the model (4). Tertiary contradictions between newly reconceptualized activity and existing activity generate the fifth and sixth learning actions: implementation (5) and reflection (6). Quaternary contradictions between the new activity and its neighboring activity systems generate the seventh learning action: consolidation (7). (Engeström & Sannino, 2011.)

Figure 4-8 The cycle of expansive learning and its learning actions (Engeström & Sannino, 2010, 8).

Overall, expansive learning leads to the formation of a new, expanded object and activity oriented to the object. This involves the formation of a theoretical concept for the new activity, based on modeling the initial simple germ cell (see Section 4.4), which in turn gives rise to the new activity and generates its concrete manifestations (Davydov, 1990). An expanded object, its formation and the corresponding new pattern of activity require collective and distributed agency, questioning and breaking away from the constrains of the current activity and joining a journey through the uncharted area of the zone of proximal development (see Section 4.3) (Engeström, 1996; 2005b; 2016, p. 47.)

4.7 Transformative agency

Transformative agency differs from ordinary notions of agency in that it emerges from encounters with and examinations of disturbances, conflicts and contradictions in the collective activity. Actions of transformative agency build up the participants’ joint activity by analyzing and envisioning new possibilities. Transformative agency involves seeking possibilities for collective change efforts. It is not limited to the relations of an individual; it underlines the importance of expansive transitions from individual initiatives toward collective actions and to systemic change. (Engeström, et al. 2014; Haapasaari et al., 2016.)
Transformative agency goes beyond the situational here-and-now actions as it emerges and evolves over time, often through debates and stepwise crystallizations of a vision to be implemented (Engeström & Sannino, 2013). Volitional actions (Sannino, 2015) and transformative agency (Virkkunen, 2006) are linked when they break away from established constraints (Hopwood & Gottschalk, 2017).

The home care appointment brings two actors together to deal with a problem. Such a critical encounter contains both complementarity and tension between the actors and shared transformative agency may emergence during the encounter.

Along with activity theory, my study has been influenced by Jyrkkämä’s (2007) work on elderly people’s agency. Jyrkkämä (2007) shows how individuals construct their own life courses and futures. He describes agency as an individual’s utilization of resources by acting and making choices in situated time and space, and within the scope of the possibilities, conditions and constraints that actual sociocultural circumstances offer to him or her. Jyrkkämä (2007) describes six interconnected modalities of agency (Figure 3 in Article I).

Jyrkkämä analyzes these six modalities in four different dimensions: (1) actors or agents, (2) everyday practices, (3) physical and social spaces and (4) local cultures. The agent’s perspective is on what one knows, what one is able to do and what are one’s aspirations. This is adapted to the demands of everyday practices with regard to what one needs to know and needs to be able to do and to want, creating necessities, constraints and possibilities that influence the actor’s or agent’s perspective. Physical and social spaces also impose necessities, constraints and possibilities that further influence this perspective. In addition, local cultures provide meanings, self-evident facts, anticipations, routines and traditions.

Agency in Jyrkkämä’s (2007) sense is something that arises, is shaped and renewed by the contextual dynamics of these six modalities. Agency manifests as (1) of being able to do something, (2) knowing how to do something, (3) wanting to do something, (4) having possibility to do something, (5) having to do something and (6) feeling, experiencing and appreciating something. These modalities have a variety of connections to contexts such as age, moment, gender and space or place. (Jyrkkämä, 2007, p. 207-208.)

Jyrkkämä (2007) looks at agency as a quality in each individual. He (1996) emphasizes the importance of the duality of power. On the one hand, power is control. On the other hand, it is the ability to produce change. What is the clients’ share and what does the home care worker do at the client’s home during the home care appointment is significant from the perspective of the elderly person’s functional capacity and physical mobility.

I interpret Jyrkkämä’s (2007) theoretical modalities for individual agency in the home care context in terms of the following orientation questions.
- What does “being able” mean from the elderly client’s point of view, and what is required of the elderly client during the meetings with the home care worker?
- What and what kind of knowledge (knowing how to do something) is required of the elderly client during the meetings with the home care worker?
- What does the elderly person want during the home care appointment?
- What is “possible to do” from the elderly client’s point of view during the meetings with the home care worker?
- What does the elderly client “have to do” during the home care appointment?
- How does the elderly person feel when they meet the home care worker?
- What does the home care worker expect the elderly client to be able to do during the home care appointment? How does the home care worker respond to this?
- What does the home care worker expect the elderly client to know during the home care appointment? How does the home care worker respond to this?
- What does the home care worker expect the elderly client to want during the home care appointment? How does the home care worker respond to this?
- What does the home care worker expect the elderly client to consider possible to do during the home care appointment? How does the home care worker respond to this?
What does the home care worker think that elderly client must do during the home care appointment? How does the home care worker respond to this?

How does the home care worker expect the elderly client to feel during the home care appointment? How does the home care worker respond to this?

Jyrkämä (2007) is concerned about current thinking on the narrowly understood social functional capacity of elderly people. He argues that researchers should expand their thinking to the social context in which elderly people’s functional capacity is used. Researchers should start to focus their studies on performative functional capacity, i.e., the implementation of functional capacity in the old person’s context.

In other words, researchers should switch their focus to how elderly people actually use or do not use the functional capacity resources that are available to them. This change of thinking broadens the focus from objective i.e., measurable functional capacity, to include experiential, subjective, contextual estimates of what is required for daily life and the expected and available functional capacity to meet these requirements. (Jyrkämä, 2007, p. 201.)

In this study, I interpret developing a shared object, which allows home care workers and their elderly clients to construct shared goals, plans and practices concerning the clients’ functional capacity and physical mobility as shared transformative agency. To achieve shared transformative agency, home care workers and clients need shaped instruments that can become second stimuli. In this study, the Mobility Agreement serves as such an instrument.

Tulle (2004) states that growing older does not free people from having to manage the structure in which their lives are embedded, and as people age, they continue to take part in a range of activities. At the same time, elderly people operate within a range of expectations. They might deny agency because they are engaged in an inevitable process of decline, or if agency manifests itself, it may be used a way of pushing back decline.

Action is a process, Giddens (1984, p. 9) describes, a flow, which an individual monitors in order to control the body that the actors ordinarily sustain throughout their day-to-day lives. He (1984) points out that the issue is how the concepts of action, meaning and subjectivity are specified and how they relate to the notions of structure and constraint. He notes how practices are continued and reproduced and how structure is not outside social action; it only exists because of social action. Human social activities are continually recreated in and through social actors’ activities; agents reproduce the conditions that make these activities possible. Using Giddens’ (1984, p. 5) stratification model of the action (action as embedded sets of processes), actors are described as having the motivation and skills related to the action and as having the ability to justify, rationalize, and reflexively monitor the action. Giddens (1984) does not separate human agency and social structure into two distinct concepts or constructs; he sees them as two ways of considering social action.

This means a duality of structures: On one side, these are composed of situated actors who undertake social action and interaction, and knowledgeable activities in various situations, and on the other side, the rules, resources and social relationships are produced and reproduced in social interaction. Human agents possess knowledge about what they do in their day-to-day activity. (Giddens 1984, pp. 25–26.)

Thus, whatever elderly people do, whether they stay active or give in to immobility and inactivity, whether they postpone decline or decline catches up, the danger we should be concerned about is the social, cultural and possible economic marginalization of elderly people. (Tulle, 2004.)

4.7.1 Embodiment

Physical mobility and agency are clearly intimately intertwined based on e.g. Gallagher, 2005.

Agency is both physical and verbal. Gallagher (2005) argues that language is a modality of the human body, as it is generated out of movement. If embodiment shapes language, one could propose the translation of the embodied frameworks into linguistic form, through the tool of motion. Spoken language emerges from embodied movement, a special kind of oral motility. From this perspective, speech is a sophisticated movement of the body.
Willful movement is accompanied by a lack of a sense of helplessness or desire to control. A sense of agency is built into willful movement and is only noticed when it goes missing. In other words, if one loses control over motor activity, one also loses a sense of agency and gains a sense of helplessness. (Gallagher, 2005.)
5 Methodology and data

The fundamental methodological principles of this formative interventionist research approach – the principle of double stimulation, the principle of ascending from the abstract to the concrete (Sannino, 2011) and the principle of transformative agency (Engeström et al., 2014) – are connected to the target of the interventions conducted in 2006–2012 and a constellation of activity systems in home care in Helsinki. The activity-theoretical formative interventionist approach in this study is intended to generate and support a cycle of expansive learning (Engeström, 2015, xxxiii), built on and integrating my four empirical articles (original publications, Articles I–IV).

The methodological cycle of expansive learning (Engeström 1987, p. 323) and sequences of learning actions in an expansive learning cycle (Engeström, 1999a, p. 384; Engeström & Sannino, 2010, p. 8) play a central role in my study methodology. The contradictions observed in creating and implementing the Mobility Agreement proceeded follow the logic of a cycle of expansive learning (Figure 5.1.).

In this chapter, I describe the research process on the home care of the City of Helsinki. Table 5-1 shows the methodology and data, including the research process and design of each sub-study, reported in Articles I–IV. At the end of this chapter, I also discuss my position as researcher.

5.1 Research process and data

In Chapter 3, I explained out how the research site of my study was shaped while the formative interventions progressed during over six years. As my study is longitudinal in character, changes occurred in the research site during the process, as generative solutions developing over lengthy periods in both the researched activities and the research community.

In other words, this is a longitudinal, formative interventionist study. However since 2006, it has been an intravention by the practitioners themselves in home care in Helsinki. After the interventions (Promising Practices13 and the HETE14 project), the transformation efforts in home care continued as intraventions which took place on the initiative of local actors. Intraventions occur when collectives conduct formative interventions on themselves, pursuing practical experimentation with a problematic situation in order to transform their activities (Sannino et al., 2016).

The new practice built around the Mobility Agreement has been modified and is developing continuously. However, the Mobility Agreement does not determine home care practices. It is not a mechanical task that has to be firmly deployed. It actually triggers transformative processes related to the entire working ideology in home care.

My research strategy is to integrate my published articles into a single logical entity that addresses my three main research questions (listed in the introduction). These main questions relate to the more specific sub-questions in the four dissertation articles.

A successful encounter between an elderly client and a home care worker supports the elderly client’s physical mobility by means of regular exercises embedded in daily chores at home. To address this, we at Helsinki Home Care designed a new tool and practice called the Mobility Agreement. This tool is a plan prepared jointly by the client and a home care worker and aims to promote daily exercises. The methodological cycle of creating and implementing the Mobility Agreement in the home care of the City of Helsinki proceeded...

13 The “Preventing social exclusion among the elderly in home care in the City of Helsinki: Development of promising practices” research and development project (2006-2009) was a joint endeavor of the Center for Research on Activity, Development and Learning (CRADLE) (University of Helsinki) and the City of Helsinki Health Centre. Yrjö Engeström was the principal investigator of the project; Jaana Nummijoki was both a researcher in the project and a home care manager.

14 The HETE project was part of Tekes’ “Innovations in social and healthcare services” program (SOTE 2008–2015) and was funded by the Finnish Funding Agency for Innovation Tekes (Project No. 2992/31/2009 “Implementation Conditions of Integration Innovations in Health Care: Organizational Volition and the Voice of the Client”, principal investigator Yrjö Engeström) and the Academy of Finland (Project No. 253804 “Concept Formation and Volition in Collaborative Work”, principal investigator Yrjö Engeström).
according to the phases depicted in Figure 5.1, designed to follow the logic of a cycle of expansive learning (Engeström, 2001).

The first methodological cycle took place between 2006 and 2009 in Helsinki Home Care. This resulted in the design and development of the Mobility Agreement.

In the following paragraphs, I briefly describe the co-configuration process, which involved actions through an expansive learning cycle. I was actively involved as a developer-researcher in the task force (comprising 11 members from five aged-care support agencies representing both third-sector charity organizations and relevant service provider agencies of the City) exploring, developing and designing the Mobility Agreement. For this reason, in the following section I write how “we” worked through the logic of a cycle of expansive learning (Engeström, 2001) following the learning action steps outlined in Figure 5.1.

**Learning action 1:** Questioning and criticizing some aspects of the accepted practice and existing wisdom. (Engeström & Sannino, 2010, p. 7.). The “Need state” took place between the fall 2006 and spring 2007, when we questioned the aspects of the accepted home care practice and existing wisdom. We noticed that impairment of mobility was one of the major factors limiting agency among elderly home care clients. We agreed that a successful encounter between such a client and the home care worker would prevent marginalization by supporting the elderly client’s agency. However, based on our experience, this requires the home care worker to pay special attention to the old person’s functional capacity. We questioned the current working model and disturbances. The provision of support for elderly people’s functional capacity and physical mobility was not a home care service implemented by the City of Helsinki.

**Learning action 2:** Analyzing the situation together with the home care workers. This analysis involved discursive and practical transformation of the situation in order to discover causes or explanatory mechanisms. This phase was an actual-empirical process, which explained the situation by constructing a picture of its inner systemic relations. (Engeström & Sannino, 2010, p. 7.) The “double bind” phase was in the fall of 2007 and continued until the spring of 2008. During this time, I collected the data in home care and worked with the task force to analyze this data to answer the question: What is the client’s share and what does the home care worker do at the client’s home? By analyzing the history and the current state of the practice, we answered the question: Why is support for elderly people’s functional capacity and physical mobility not an implemented home care service in Helsinki? The home care workers did not know what functional capacity and physical mobility support services they should provide. The clients did not know what they should pay for – what services were available, what was included to support their functional capacity and physical mobility, or what their own responsibilities were in this regard.

Between and along the first and second learning actions, we faced the primary inner contradiction (double nature) in the home care activity (Engeström, 1987, pp. 87, 89–90). The primary contradiction of home care seemed to emerge between the exchange value and the use value within each element of the activity system. In other words, the way in which the basic daily chores were carried out during the home care appointments could either ignore the complex challenges of loneliness, immobility and dementia, or proactively reduce these risks. (See Figure 5-1 and Figure 5-2.)

**Learning action 3:** Modeling the newly found explanatory relationship in an observable and transmittable medium. This meant constructing an explicit, simplified model of the new idea that explains and offers a solution to the problematic situation. (Engeström & Sannino, 2010, p. 7.) During this action, in the fall of 2008, we had a breakthrough. In the previous learning action, we had experienced and identified a double bind, the fundamental problem that seemed to emerge in home care as a phenomenon of doing daily activities for the elderly clients – e.g., making the sandwiches FOR them and serving the sandwiches TO them instead of making the sandwiches WITH them. We observed that attempts to support the elderly clients’ functional capacity and physical mobility disrupted the home care workers’ schedule planning – as a result, they just repeated their tasks while sometimes trying not to undertake the activities of daily life (ADL) on the clients’ behalf. Having identified this conflict between the immediate efficiency of the home care worker and the long-term effectiveness of the service, we worked by modeling, trying to find a new solution. The breakthrough came with the idea of creating a new mediating tool for facilitating joint planning between the client and the home care worker with the objective to promote daily exercises.
Learning action 4: Examining, running and operating the model and experimenting with it in order to grasp its dynamics, potentials and limitations (Engeström & Sannino, 2010, p. 7). The formation of the new solution meant designing a springboard, examining and testing a new model. We created an education program for home care workers supported by pilot teams to foster elderly people’s functional capacity and physical mobility, easy-to-administer field tests and a Mobility Agreement template.

In other words, we constructed new tools to support elderly people’s functional capacity and physical mobility in home care. This new home care model was tested “in a microcosm”, on a test bench of the future form of the activity system. The pilot concentrated on a comprehensive, holistic home exercise and gym-training program embodied in a Mobility Agreement. During the fall of 2007 and spring of 2008, the clients of the South Helsinki Home Care service area had the opportunity to participate in a cooperation project that promoted their functional capacity and physical mobility.

Due to a new instrument, the Mobility Agreement, entering into the activity system of home care, secondary contradictions (Figures 5.1) emerged between the components of this activity (Engeström, 1987, pp. 87, 90). The new instrument was not easily compatible with the existing rules embodied in the standard script of a home care visit. Nevertheless, we started with the simple intent to cultivate agency by doing things together during home care encounters. We focused on the implementation of performative functional capacity in the old person’s context. In other words, we switched our focus to how old people use/do not use the functional capacity resources that are available to them.

The purpose of the Mobility Agreement is to contribute to the home care client’s functional capacity and physical mobility through physical actions, planned and executed with the support of the home care worker. In other words, we concluded that the contradiction identified in the third learning action might be dealt with by developing an expanded shared object, which allows the home care client and home care to construct shared goals, plans and practices concerning the client’s performative functional capacity.

Learning action 5: The task force’s fifth learning action, implementing the Mobility Agreement by means of practical applications and conceptual extensions (Engeström & Sannino, 2010, p. 7), took place in the spring of 2009. The adjustment and enrichment of this new tool was part of the implementation process.

The implementation required new kinds of dialogue and cooperation on at least two levels. Negotiations to promote day-to-day exercise during home care appointments were needed between the home care client and the home care worker on the other hand, and between the parties and multiple support agencies involved in home care on the other hand. Implementing the new solution required a new home care script, that includes the negotiation of home exercises and (depending on the client’s physical condition) gym programs, embodied in the Mobility Agreement.

The Mobility Agreement as a mediating new instrument is a plan, prepared by the client and a home care services staff member, with the objective of promoting day-to-day exercise. It may include a home exercise program with, for example, stand-ups from a chair and balance exercises, climbing stairs, chores at home and watering plants. It may also include recreation, for example, with a volunteer, and help and information regarding group exercises. The objective of the exercises and home chores is to improve muscle strength, balance and functionality. Home care workers provide assistance in selecting and monitoring the exercises. When necessary, the services of a physiotherapist or an occupational therapist can be used.

Learning action 6: Implementing this new tool and the corresponding practical actions was not enough. We faced resistance during the fall of 2009 in the sixth learning action, reflecting on and evaluating the process while moving toward a new stable form of practice (Engeström & Sannino, 2010, p. 7). We evaluated the new model by reflecting on feedback in home care team meetings and I followed up home visits. Upon reflection, and after cultivating an education program and piloting the Mobility Agreement in South Helsinki Home Care, we realized that the design of the Mobility Agreement would have to continue while the new practice was being implemented. The design work continued as implementation progressed across all Helsinki Home Care.

The work of the task force ended at the end of 2009, when the intervention research project on promising practices (Preventing social exclusion among the elderly in home care in the City of Helsinki) finished.

Learning action 7: Education programs continued as part of the processes of the Home Care department in 2010–2012. I interpret this as the seventh learning action, consolidating the outcomes into a new stable form
of practice (Engeström & Sannino, 2010, p. 7). The stabilization phase involved the consolidation of the new model. The Education Program was implemented across all Helsinki Home Care, and the professionals, including me as one of the home care managers, supported the pilot teams.

As the implementation of the educational program progressed across all the Helsinki Home Care teams, i.e. when a culturally more advanced object and motive was introduced into the activity, tertiary contradictions appeared. Implementation was difficult because the dominant standard script of a home care visit focused on necessary medical tasks (dispensing medications, monitoring blood pressure) and practical hygiene and nutrition chores. Facilitating physical mobility was not part of the standard script. The object/motive of the dominant form of activity and the object/motive of a culturally more advanced form of activity clashed, meaning that the dominant home appointment script was in conflict with emerging new script based on the Mobility Agreement practice. (Engeström, 1987, pp. 87-88, 90).

It is important to note that the design of the Mobility Agreement could not be finalized while the new practice was still being implemented. This led to a second cycle, and perhaps further subsequent cycles, as indicated in Figure 5-1. This corresponds to a key characteristic of co-configuration described by Victor and Boynton (1998, p. 195): “… co-configuration work never results in a finished product.”

A new expansive learning cycle started in 2013 when the new organization, the unified Department of Social Services and Health Care, was founded, integrating home care units with hospital, rehabilitation and care services. This is when the quaternary contradictions between the home care activity and its neighbor activities began to emerge. Despite the contradictions, there is growing understanding across organizational units and professional groups that successful mobility-related encounters between elderly clients and their home care workers can support elderly clients’ physical mobility by means of regular exercises embedded in daily chores at home. An analysis of the cycle that began in 2013 is beyond the scope of this study. However, by 2013, implementation was well advanced and the new home care practice was stabilized.
The data for this study were collected in Helsinki Home Care over a six-year period (2006–2012) in the form of observations, video-recordings during home care encounters, and interviews of home care workers and their elderly clients. During the period 2006–2009, I spent half my home care manager work time as a team member and developer-researcher in the development and research project “Preventing social exclusion among the elderly in home care in the City of Helsinki”.

Data collection in my study was twofold. In 2007–2011, I collected the data through observations – shadowing and video-recording home care workers and their clients during home appointments. Co-operation continued between Helsinki Home Care and the CRADLE in 2010–2012. During these years, I worked part-time in the project “Implementation Conditions of Integration Innovations in Health Care: Organizational Volition and the Voice of the Client” observing and interviewing home care clients and employees during and after home care encounters. The formative intervention methodology of my study meant that my research proceeded gradually across all four articles through longitudinal data that I gathered over six years.

In addition to my own data collection, I helped a research colleague gather data in the home care field in 2010–2012, when she observed and interviewed home care clients and employees during and after home care encounters. This is the sub-data I analyzed with my colleagues in Article III of my dissertation.

Table 5-1 illustrates the whole research process across the articles of my thesis. The research process began with the first article of my study, when the Mobility Agreement was designed in Helsinki Home Care. My first article: “Toward co-configuration in home care of the elderly: Cultivating agency by designing and implementing the mobility agreement” (Article I) is an examination of an effort to shift home care from mass production toward co-configuration, and an analysis of the introduction of physical mobility exercises into the daily practices of home care.
The research process (Table 5-1) in my first article started with an analysis of the introduction of physical mobility exercises into the daily practices of home care using a new collaborative tool, the Mobility Agreement. I then introduced the context of home care of the elderly in the City of Helsinki by focusing on the internal contradiction that in our interpretation demanded radical reconceptualization of home care work. We built the description of the design phase of the co-configuration process and introduced the conceptual framework we used to analyze data from the implementation phase of the mediating, collaborative tool. The analysis of two home care visits involved the same actors. The first visit was conducted before the introduction of the Mobility Agreement. During the second visit, the client and the home care worker discussed the Mobility Agreement. My co-author and I examined the new forms of agency generated by using the Mobility Agreement.

The results of Article I, indicating that basic physical exercises may contain a conceptual core for the expanded object of mobility and functional capacity, formed a bridge to Article II. The importance of getting up from a chair (sit-to-stand) as a potential germ cell for a new expansive concept of physical mobility in home care was a finding that defined the key notion of a germ cell which could be applied in the analysis of the collective formation of a new concept of mobility. The germ cell was formed and expanded mainly by means of bodily movements and emotions, supported by simple illustrated artifacts.

I conducted the analysis of Article II focusing on 13 video-recorded home care appointments, mediated by the new Mobility Agreement tools in 2008 and 2009. One home care appointment conducted as a follow-up visit in 2011 was analyzed in detail, after two years of implementation of the Mobility Agreement. It was conducted in a reflective mode with joint remembering and reconstructing of the experiences gained. The germ cell was established through repeated collaborative physical actions.

After the first article was published in 2010 and the second in 2012, sub-study of home care appointments as critical encounters, exploring the ways in which artifacts were used in engendering transformative agency by double stimulation. The detailed analyses of the third article of my study (Article III) concerned four cases: two cases of predominantly restrictive uses of artifacts in critical encounters, and two cases of predominantly expansive uses of artifacts in critical encounters. The findings constitute an interpretation of the characteristics of double stimulation in critical encounters, as they were events in which two actors dealt together with a problem that represented a potentially shared object and at the same time a conflict of motives. In this sense, critical encounters in home care form the sites of the formation of transformative agency and emergent concepts.

Article IV is an analysis of defensive and expansive learning cycles as they appear in real-life home care encounters. The Mobility Agreement practice is seen as an attempt to resolve mobility-related contradictions in home care. The article implements an overview of the analysis of 30 home care visits, and a detailed analysis of four video-recorded home care encounters, each representing a different type of combination of the learning cycles of the client and the home care worker.

The whole research process of my study concerns the expansion of the object during a critical encounter, the home care appointment. This study implements the idea of co-configuration using a mediating tool: the Mobility Agreement. Shared transformative agency in this study means the achievement of co-configuration between two or more actors, to bring about change in orientations during home care encounters in order to focus on a shared object – the elderly person’s functional capacity and physical mobility.

Interventions in 2006–2012 facilitated both intensive, deep transformations and continuous step-by-step improvement as a longitudinal process in home care. The idea was to arrange spaces in which a representational and practical tool, the Mobility Agreement, was available for constructing new ideas of the work activity.
## Table 5-1 The research process and data

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5.2 My role as researcher

As a researcher, I had multiple positions in this study. I was a health care professional from the physical therapy point of view. I was also a home care manager. Furthermore, I was a researcher as a developer-researcher. These multiple roles required and enabled me to be especially critical in this study.

I was critical about my role as home care manager in the data collection. I conducted the data collection in home care units other than those where I was supervising. As a health care professional, I am interested in elderly clients’ health – namely their functional capacity and physical mobility – and in their agency in the role of the home care client.

This study concerns my journey as a developer-researcher and manager specialized in the rehabilitation, functional goals and performative physical mobility of human beings.

*Between theoretical and empirical knowledge, there is no absolute and everlasting distinction. (…) Empirical experience often gives rise to new problems and questions, which oblige us to develop new theoretical hypothesis and ideas.* (Engeström, 1994, p. 85.)

*At developmental re-mediation of work activities (…) research makes visible and pushes forward the contradictions of the activity under scrutiny, challenging the actors to appropriate and use new conceptual tools to analyze and redesign their own practice* (Engeström 1999, p. 3; 2015, p. xvi.)

My study differs from many varieties of action research in that it is built on an elaborate theoretical framework and its objectives are based on a historical analysis of the research object, namely the home care encounter. My study was guided by an open working hypothesis based on the historical analysis of development and contradictions in the activity systems of home care.

This research focused on clients’ and professionals’ encounters, introducing working methods to support clients’ functional capacity and physical mobility with the help of a mediating tool, the Mobility Agreement. I used ethnographic observation, analyzed the dialogue, and tracked the emergence of transformative agency among and between the participants.

The research was conducted in the organization for which I work as a “complete member” in addition to my role as a developer-researcher. As Coghlan et al. (2005, p. 47) describe, I am a researcher who aims to both achieve personal goals in a project and contribute to the organization. This study was about improving practice through interventions.

In my researcher positions, I recognized the particular challenges posed by researching my own organization and managing the closeness-distance tension in pre-understanding and managing role duality and politics (Coghlan et al. 2005, p. 134) to ensure that I would have a future in the organization when my research was completed. My engagement as an inside developer-researcher meant that I was using my own pre-understanding and organizational knowledge for my own personal and professional development. In the discussions during the interactions between home care workers and their elderly clients on the goals of home care or changes in the work processes (to allow more time to support functional mobility and capacity in addition to the normal home care duties), I had the opportunity to acquire an “understanding through use”, rather than a “reconstructed understanding”.

My pre-understanding and experience led me to doubt whether the home care management teams were willing to adapt to change and to adopt new work practices. Ultimately, the home care management teams have the power. Whether, when and how to implement the new work practice aimed at the expansion of the object of elderly person’s functional capacity and physical mobility was largely in their hands. Although I was in a managerial position, there was no way in which I could force other home care managers and workers to adopt and implement the Mobility Agreement practice.

When the object expands, responsibility also expands. An expanded object requires new models of working and logics for acting. The whole activity system of the elderly person becomes the object of home care, not just the “patient” and his or her possible injury or illness. This perspective is the foundational ethical stance and commitment that has guided my study.
6 Main findings

In this chapter, I present the main findings of my four published articles (Articles I–IV) and provide answers to the study’s general research questions.

An overview of the specific findings of the four reviewed articles related to their specific sub-questions is depicted in Table 6-1, which I address during the explanation of the main findings of my dissertation articles in Subsections 6.1.1–6.1.4.

In addition, I also present a detailed summary of the research findings of reviewed scholarly articles particularly related to the three general research questions, as these scholarly articles constitute the foundation for my study in Subsections 6.2.1-6.2.3.

6.1 Main findings of published articles

In this section, I take the settings, main concepts and findings of the four published articles and present them in the context of my dissertation’s three main research questions and the specific sub-questions that are addressed in each published article.

I bridge the four articles together in order to transcend the whole picture of the learning opportunities in the transformation of shared agency during home care encounters, toward the four perspectives of agency as implications for home care.

As a summary, the specific findings of the four reviewed articles related to their specific sub-questions are depicted in Table 6-1.

6.1.1 Article I: Towards co-configuration in home care of the elderly: Cultivating agency by designing and implementing the Mobility Agreement.

The first article of my dissertation (Article I) challenges home care work as a process to allow sufficient time and expansive concept formation at work to support elderly people’s functional mobility and capacity in addition to normal home care duties.

The focus of Article I is on agency formation during home care visits, carried out by means of interaction between the home care client and their caregiver. This kind of interaction during the home care encounter manifests and shapes the agency of both the home care client and the caregiver. In Article I, the data setting comprises two home care visits involving the same actors, one was conducted prior to the upcoming change of the home care script, and in the other, the client and the home care worker used the Mobility Agreement. In the second encounter, in which the client and the home care worker used the Mobility Agreement, the parties cooperated on the exercise program (Mobility Agreement) as a shared problematic object and worked together to find ways to make it function. This particular encounter shows the transition of the Mobility Agreement, first as the object and then, as the client’s functional capacity and physical mobility began to take shape, as a concrete object in the real context of home care.

The fundamental baseline in Article I is twofold: (1) Agency is connected to the body, to intentional physical movement and to the human being’s ability to move around. (2) Building new kinds of agency also needs new mediating artifacts. To find out more, the study analyzed the new collaborative tool, the Mobility Agreement, as a mediating device for facilitating negotiation and co-configuration between the client and the home care worker.

The analysis of Article I uses two qualitative approaches in the analysis of agency formation: Agency as a quality of each individual (Jyrkämä, 2007), and agency as a quality of the collaborative effort, relationship and interaction itself (Engeström, 2005).

From the “individual” perspective, agency manifests as modalities – of being able to do something; knowing how to do something; wanting to do something; having the possibility to do something; having to do something; and feeling, experiencing and appreciating something. These modalities have connections to contexts such as age, moment, gender and space or place. (Jyrkämä, 2007, pp. 207–208.)
From the “collaborative” perspective, this article studied relationship and interaction, using the analysis model of Engeström, Brown, Christopher and Gregory (1997). The model defines the quality of the encounter between the home care worker and client with the help of three developmental forms of epistemological subject-object-subject relations: coordination, cooperation and communication.

Both of these theoretical lenses for the analysis: The six modalities of agency (Jyrkämä, 2007) and the coordination-cooperation-communication modes of interaction (Engeström, Brown, Christopher & Gregory, 1997) were useful in the initial analyses of the data. The study explored, named and compared the forms of agency of the two home care visits with the help of these two lenses, answering the sub-questions: (1) How does the agency of an old person with frail functional capacity and physical mobility and the agency of a home care worker manifest during their interaction in home appointments? (2) Do their agencies change as a result of cultivated working practices focusing on the old person’s functional capacity and physical mobility in the practical context?

The findings of Article I indicate a connection between co-configuration, agency, embodiment and artifacts. We learned that the Mobility Agreement is not something that can be straightforwardly implemented on command. It seems that the exercise program brochure may well serve as an intermediate stepping-stone in the formation of a new, shared object between the home care worker and the client. The shift in the manifestation of agency between the standard home care visit and the experimental visit analyzed in Article I is significant. The idea of co-configuration was not necessarily the prime moving force in the shift.

The columns of Table 6.1 illustrate these main findings and concepts, which are related to the specific sub-questions, including the data details, in Article I.

Figure 1-3 (the context of home care) has already depicted the two interacting activity systems (Engeström, 1999a) between the home care worker and the elderly client. The model is of two activity systems (Engeström, 1987) as a functioning tool for the analysis of two actors who come together to deal with a problem that represents a potentially shared object and at the same time a conflict of motives. Maintaining and improving the physical mobility of the client is not often at the core of the daily tasks of home care. Because of this, the generative solution for mobility support, the Mobility Agreement, must include the transition from object to tool/instrument. This means that initially, the home care worker and the client first cooperated on an exercise program (described in the Mobility Agreement) as a shared problematic object and worked together to find ways to make it function. The interplay between refreshing physical movements (the mobility exercises) and a new meaningful mediating artifact (the exercise brochure) triggered new forms of agency.

The new forms of agency – agency through embodied remembering, agency through commitment to action, and agency though critical comparative reflection – led to the expansion of the object of interaction and to a collaboration that seemed to achieve the idea of the Mobility Agreement and thus the idea of co-configuration in an embodied way. (See Table 6-1).

Article I forms a bridge to Article II by indicating that basic physical exercises may contain a conceptual core for an expanded object of mobility and functional capacity. This core and thus the transition of the new solution from an object to a functional tool/instrument/practice is fundamental in this developmental work research and implies that the physical exercises in the Mobility Agreement contain a conceptual core for the expanded object of mobility and functional capacity.

Article I showed the importance of getting up from a chair, or sit-to-stand, as a potential germ cell for a new, expanded concept of mobility and functional capacity in home care for the elderly.

According to Rosie and Taylor (2007), in a highly variable population of elderly adults with mobility limitations, the low-intensity functional home exercise of repeated sit-to-stands improved balance. Getting up from a chair is a whole-body action. It requires postural control and other sensory-motor systems in addition to adequate strength, and it represents a particular transfer skill (Lord & al., 2002.) Getting up from a chair is ubiquitous, it is a necessary step and precondition in almost any more complex daily action that involves moving physically from one place to another. Therefore, getting up from a chair could be fundamental for maintaining elderly people’s ability to perform their functional activities and reduce their risk of falling, and therefore for keeping them connected to an active social life.
6.1.2 Article II: Embodied germ cell at work: Building an expansive concept of physical mobility in home care

As I explained above, Article I includes a proposal for further elaboration of getting up from a chair (Figure 6-1) or sit-to-stand, as a potential germ cell of a new, expanded concept of mobility and functional capacity in home care for the elderly.

![Figure 6-1 Procedure of getting up from a chair. Reprinted with permission (Article II, Engeström et al., 2012, p. 292).](image)

In addition to Article I, Table 6-1 also depicts Article II with its main findings and concepts related to the specific sub-questions, including the related data details.

The analysis in Article II brings together the dialectical principle of ascending from the abstract to the concrete with the help of a germ cell, and key ideas from embodied and enactive cognition (adjusted trustworthy act) during the home care visits, in detail, in one mobility-related encounter two years after the implementation of the Mobility Agreement. Therefore, Article II presents a process of collective formation of a new concept of mobility between home care workers and their elderly clients who are at risk of losing their physical mobility and functional capacity.

It examines whether it is possible to identify the germ cell of a new concept of mobility in home care workers’ and their clients’ practical efforts to integrate physical mobility exercises into the routines of home care services and the client’s daily chores. In this study, we discovered that getting up from a chair is the candidate for such a germ cell, as a working hypothesis that needs to be grounded, expanded and enriched to test its viability. The idea of Article II was to bring the data and the hypothesis: “Mobility, as exemplified by getting up from a chair, is not just any movement or exercise. It is movement aimed at strengthening the muscles and improving the balance, that make further movement possible and safe and reduce or eliminate the fear of falling. Smart movement overcomes the fear for movement”, into such an interaction that it can be improved and gain explanatory power (Engeström, 1990, p. 93).

Article II examined in detail a sample of 13 of my video-recorded data cases from home care visits conducted in 2008 and 2009, which were recorded shortly after the Mobility Agreement was introduced and represent the home care workers’ and clients’ early efforts to include mobility exercises in their daily routines. The condition and care of the clients were followed during these visits by means of client records and workers’ notes. Getting up from a chair played a role in practically all these cases. To obtain access to the longitudinal process of concept formation, in 2011 I recorded a follow-up home care visit as a case study, in which the emphasis was on the joint reconstruction of the client’s and the nurses’ experiences of implementing the Mobility Agreement over the last two years.

The analysis depicts movement from the abstract to the concrete: a germ cell as multidirectional expansion by means of six trails of implementation and expansion of the germ cell. The actors’ specific actions to ascend...
toward the concrete when developing the germ cell were: (1) straightening the back and gaining a better posture, (2) taking regular walks, (3) using sit-to-stand as a diagnostic aid, (4) teaching relatives to do mobility exercises, (5) setting the table, and (6) being in a better mood, taking care of oneself.

In this study, I also observed three types of important bodily acts in the home care visit: (1) physically performing and/or examining movements aimed toward implementing the new concept, (2) using the material artifacts of the environment to enhance concept formation, and (3) using bodily gestures and facial expressions to enhance the interactive construction of an observation, idea or feeling. These previously mentioned interactive physical acts were at the core of the concept formation process, not just secondary, additional features of it.

The most important lesson from this overview was the realization that sit-to-stand was more pervasive and ubiquitous than other elements of the Mobility Agreement and the associated exercises in this data.

Another lesson from Article II was that the consequences of sit-to-stand were not quick fixes or sudden changes in behavior. They took time and seldom manifested as radical breakthroughs. Often, we see short-term “ups and downs”, but significant improvement over the long term. This creates difficulty in longitudinal follow-up and analysis. Systematic longitudinal follow-up of selected cases requires a great deal of resources. It is made particularly difficult by the fact that turnover is high among home care workers, and this leads to frequent ruptures and restarts in home care. The age and insecure state of health of the clients also create ruptures in the form of hospitalizations.

Overall, Article II shows how getting up from a chair remained a solid core and object of reflection in clients’ expanding mobility. It embeds and integrates mobility into the necessary everyday actions of the elderly person. It is accomplished jointly by the client and the home care worker (or some significant other) relying on innovative uses of everyday household artifacts such as chairs, tables, stairs, mirrors and utensils. This new concept, getting up from a chair, is a way to transcend and overcome the contradiction between safety and autonomy or between fear of falling and the need to move (Figure 6-2) as a germ cell for sustainable mobility - it is essential for coping. Moreover, the support of the elderly client’s functional capacity and physical mobility begins to take shape as a concrete object - the Mobility Agreement transfers into a usable tool. The analysis brings together the dialectical principle of ascending from the abstract to the concrete with the help of a germ cell, and key ideas from embodied and enactive cognition.

Figure 6-2 Getting up from a chair as a contradictory germ cell of sustainable mobility (Article II, Engeström et al., 2012, p. 293).

Article II calls for further analyses of the power of material artifacts in the enhancement of human will and action (Gibson, 1986; Lewin, 1951; Vygotsky, 1987). The roles and potentials of meditational artifacts in
actions and activities in which it seems that bodily action schemas and associated physical artifacts (chairs, tables, stairs, utensils and mirrors) serve as a rich source for the mediation of home care encounters.

6.1.3 Article III: Double stimulation in everyday work: Critical Encounters between home care workers and their elderly clients

The bridge from Article II above to Article III is the analysis of the roles and potentials of the mediating artifacts in actions and activities toward a conceptual model of the critical encounter as a potential site of double stimulation in home care work. Table 6-1 presents the specific findings and concepts related to the specific sub-questions, including the data details in Article III, which are described in following paragraphs.

A critical encounter is an event in which two or more relevant actors come together to deal with a problem that represents a potentially shared object and at the same time a conflict of motives. In such a critical encounter, there is both complementarity and tension between the actors. To resolve the problem, the actors may use mediating artifacts to try and take volitional action and conceptualize the situation.

The Mobility Agreement was used during many encounters in my dissertation data as an expansive manner of learning. This justifies careful optimism with regard to the planned implementation of complex artifacts or instrumentalities as supporting stimuli for transformation efforts at work. However, if such complex artifacts are one-sidedly promoted by professionals, their actual appropriation by clients may remain questionable. For this reason, it is important to identify subtle forms of client-initiated and expansive uses of artifacts. The data in Article III consist of 26 video-recorded home care visit encounters as critical encounters in which the home care workers and the elderly clients faced the challenge of implementing a new practice, (the Mobility Agreement), aiming to integrate regular mobility exercises into the daily routines of the client. Home care as a practice may be seen as the collective formation of a new concept of mobility (Engeström et al., 2012).

For the data analysis, our research group created and tested a conceptual model of a critical encounter (Figure 6-3) in order to analyze the double stimulation of mundane work activity. This model of a critical encounter is complementary to Sannino’s basic model of the phases of double stimulation (2015, p. 10, see Figure 4-7 earlier in this study), and helps us understand the advancement of volitional action and making a decision to act in particular way, prompted by a possible external stimulus (Sannino, 2015; Hopwood & Gottschalk, 2017).
The findings of Article III support the assumption that critical encounters, i.e. home care appointments, provide a fertile breeding ground for double stimulation in work activities facing transformations.

Instead of automatically generating processes of double stimulation, critical encounters seem to generate special kinds of micro-contexts in which artifacts are actively employed to deal with the challenge at hand. These micro-contexts may be described with the help of two dimensions (Figure 6-4 below): (1) the dimension of restrictive versus expansive use of artifacts and (2) the dimension of incidental versus planned use of artifacts.

The framework of micro-contexts, the dimensions of which are depicted in Figure 6-4, show how the artifact (Case 1) can be changed from expansive to restrictive use as an incidentally introduced artifact. This proves that the artifact itself does not necessarily determine how it is used.

One could expect expansive uses of medical instruments in the standard script, such as blood pressure meters (Case 2). Expectation might change from expansive use to restrictive use during the mobility-related encounter. Making certain artifacts available or requiring their expansive use does not guarantee that they are used expansively, to trigger double stimulation. The findings of this sub-study (Article III) indicate that the Mobility Agreement was often used in an expansive manner, and when implemented systematically, it was potentially a powerful second stimulus.

Therefore, I am cautiously optimistic with regard to the planned implementation of complex artifacts or instrumentalities as supporting auxiliary stimuli for transformation efforts in home care. However, we should always note that if such artifacts are one-sidedly promoted by professionals, their actual adoption by clients may remain questionable. For this reason, it is crucial to identify subtle forms of client-initiated and incidental uses of artifacts (Case 1, Case 2 and Case 4 in Figure 6-4).

The planned, professionally initiated use of the Mobility Agreement succeeds best when it is connected and merged with client-initiated and incidental uses of artifacts as second stimuli.
The findings of Article III indicate that conceptualization efforts often accompany volitional actions resulting from the expansive use of artifacts as second stimuli in which the home care client and employee jointly participate in order for the Mobility Agreement to arise. Getting up from a chair was the most frequent type of conceptualization, lending support to our earlier argument in Articles I and II that this may indeed be seen as the germ cell of the emerging concept of sustainable mobility.

Based on the findings of Article III, the key characteristics of double stimulation in an everyday work activity calls attention to two features in mundane work: (1) the interactional nature of the generation – and inhibition, and (2) the longitudinal, multi-phased and cyclic nature of home care work activities.

The conceptual model of the critical encounter (Figure 6-3 above) was used to help analyze the 26 home care visits mentioned earlier and was found to be workable. The model offers a powerful way with which to compare the different overall profiles of critical encounters and to identify important variations in the employment of artifacts in attempts to trigger or extinguish processes of double stimulation. The model was helpful in capturing the interplay between the target, mediating artifacts, volitional actions and conceptualization efforts.

In the study of Article III, we discovered that home care encounters are often negatively impacted by the “twin evils” of mobility: the home care worker’s lack of interest, and the client’s desire for inactivity. These “evils” manifest themselves as clashes between the newly introduced Mobility Agreement practice and the dominant home appointment script. Such clashes may lead to defensive learning cycles on the part of the home care worker and the client. However, it was observed that the parties might also deal agentively with such clashes and embark on expansive learning cycles that result in successful deployment of the Mobility Agreement. This matter is complicated by the fact that the two parties may end up on opposite learning cycles, one expansive and the other defensive.
Based on the findings of Article I and III regarding home care visits, the dominant form of interaction is coordination. The home care worker completes the tasks required in the standard script inscribed in the home care plan: medications, blood pressure, nutrition and hygiene. The client typically follows the script as a passive recipient of services. This means that the worker manages tasks “on behalf of” the client rather than “with” the client. Occasionally the client may bring up needs and initiatives that go beyond the standard script, such as issues of physical mobility, memory and social isolation. As these topics are not included in the standard home care script, such initiatives become dis coordinations, often meaning ignorance or prevention, eventually leading to a return to the scripted coordination. Sometimes dis coordinations also lead to a qualitative shift in the interaction, triggering a phase of problem-oriented cooperation, occasionally even self-reflective communication (See Table 6-1).

For further study, Article III directed us to seek more knowledge about the interactional nature of the generation and inhibition of double stimulation in home care encounters because of the fragmentary feature in conceptualization efforts – as if lacking a solid core and structure. In addition, the micro-contexts with the dimensions of restrictive versus expansive use of artifacts challenged me to rethink the theory of expansive learning. Specifically, to identify the possible directions of learning when contributing to the home care client’s functional capacity and physical mobility with the Mobility Agreement as an element of the core of home care, planned and executed with the support of the home care worker.

6.1.4 Article IV: Defensive and expansive cycles of learning: A study of home care encounters

The findings of Article III revealed a need to seek out more knowledge concerning the interactional nature of home care encounters and to identify possible directions of learning in the transformation of shared agency in home care encounters.

The aim of this sub-study of my dissertation – Article IV – was to study the models that represent defensive and expansive learning cycles as they appear in real-life home care encounters. The main findings and concepts related to the specific research questions in Article IV, including the data in this sub-study, are presented in Table 6-1.

Therefore, the sub-study in Article IV focused on the following questions: (1) What learning cycles may be identified in home care encounters charged with implementing the new Mobility Agreement practice? (2) What interplay may be detected between the parallel learning cycles of the home care client and the home care worker? (3) What are the characteristics of defensive learning?

The data forming the basis for my dissertation’s fourth article (Article IV) consist of 30 video-recorded home care visits to the homes of 18 clients conducted over the period of 2007–2011. The data set contains visits conducted before (baseline 13), during (5), and after (12) the implementation of the new shared object during the encounters of the home care workers and their elderly clients, and a new demanding practice and instrument (the Mobility Agreement). The Mobility Agreement directly challenges the old practice and script. For the detailed analysis reported in this article, the focus was on four of the home care visits.

In expansive learning, the learners take actions to change their activity. We identified defensive learning actions and cycles that represent the other side of their expansive counterparts in this sub-study. The learning cycles of the home care client and the home care worker were either predominantly defensive or predominantly expansive, leading to the identification of four basic types of combined learning cycles.

The home care workers and clients engaged in defensive learning cycles learned to prevent the expansion of the script of home care visits to include systematic cultivation of the client’s physical mobility. This defensive learning seems to take at least four forms: (1) learning to avoid, (2) learning to constrain, (3) learning to divert and (3) learning to refuse.

The fact that both the home care worker and the client may engage in either a predominantly defensive or a predominantly expansive learning cycle should alert us to the fact that in many learning processes it is not at all simple to determine who is teaching, leading or guiding whom. Even though home care encounters have an
in-built asymmetry between the potentially powerful practitioner and potentially powerless elderly client, when the learning challenge requires reorientation from both parties, the power relations seem to become much more open ended and variable.

Below I present an example of the interactional nature of the home care encounters (Figure 6-5), an expansive learning cycle of the home care client (HCC+) and defensive learning cycle of the home care worker (HCW-). Figure 6-5 shows two interacting activity systems as one of the learning cycles I identified in home care encounters during the data collection when Helsinki Home Care was implementing the new Mobility Agreement practice.

Figure 6-5 shows that the client initiated 15 of the 22 learning actions.

The encounter above (Figure 6-5) is characterized by a mismatch between the actions of the home care client (HCC+) and the home care worker (HCW-). This time, the home care worker was the defensive party of the encounter.

Figure 6-5 reveals that the expansive learning cycle (Figure 4-8/ Engeström, 1987), here Case C, contained six of the seven learning actions of the expansive cycle. The actions of consolidating and generalizing were missing in this case. The home care worker’s defensive stance was primarily manifested in her passivity and indifference, not so much in the form of diversion to substitute topics or active rejection of the client’s ideas. Figure 6-5 shows that the client initiated 15 of the 22 learning actions.

It seemed that the home care worker could not determine how to incorporate physical mobility exercises into her daily home care script and schedule. On three occasions, the client’s initiatives prompted the home care worker to shift from defensive to expansive action. One of these shifts occurred when the client initiated the action of examining the Mobility Agreement as a new model and the worker became interested. The worker simply did not know how she could incorporate physical mobility.
The client practically guided the worker to critically reflect on her way of working. The home care worker’s reflection indicates that the client’s expansive initiatives were having an impact, even if the worker’s overall cycle in this encounter remained predominantly defensive.

After this, they moved to the action of implementing, exercising together with the help of the exercise booklet. Toward the end of the visit, the home care worker, with input from the client, analyzed her own defensive stance.

Encounters in which the clients’ and the workers’ cycles were aligned tended to contain fewer learning actions than encounters in which the cycles moved in opposite directions. The latter types of encounters were subtle orientational mismatches (see Figure 6-5) that left matters open and required further refining by the two parties. Defensive learning actions and cycles were more reflective than expected and seemed to involve aspects of agency that are not commonly acknowledged.

In Article IV, a detailed analysis of the interplay between the parallel but intertwined and interacting learning cycles of the home care client and the home care worker revealed that the mismatches in the home care encounters were subtle movements in different directions, manifesting differences in largely tacit orientations rather than explicit differences in opinions or ideas.

The main outcome of these subtle orientational mismatches was that the situation was left open, unfinished. It seemed that this very quality of incompleteness and open-endedness generated further learning actions. Agency manifests itself in volitional actions accordingly shared transformative agency may be understood in terms of actions. The actions emerge through negotiation, contestation and collaboration between two (or more) learners engaged in a challenging shared task. The object is to overcome the tension between the need for safety and craving for autonomy, or more concretely between the fear of falling and desire for movement as a persistent primary contradiction in the life activities of frail, elderly home care clients. Correspondingly, the primary contradiction to be overcome in the activity of home care workers appears as tension between the desire to stick to the prescribed standard tasks of hygiene, nutrition and medication and the desire to respond to the client’s needs in a more proactive way. Activating the clients by “working with” them rather than doing chores “on behalf of” them might be the solution.

As noticed in this dissertation study, maintaining and improving the physical mobility of the elderly home care client is not usually at the core of the daily tasks of home care. This means that initially, the home care worker and the client cooperate on a new concept, which in this context is the Mobility Agreement as a shared object. They work together to find ways to make it function in order to fit it in the current script under tension, between the immediate efficiency and the long-term effectiveness of home care.

Expansive learning might occur in the formation of shared emergent concepts as the idea of co-configuration in an embodied way. The generative solution of mobility support, the Mobility Agreement, must include the transition from object to tool or instrument in order to reach the idea between the immediate efficiency of home care and the long-term effectiveness of the service (maintained functional capacity of elderly people).

When expansive learning is successfully accomplished, the participants, i.e. the home care worker and their client, construct a concept of their activity, oriented toward the expanded shared object of sustainable mobility (Article IV, Figure 6-6). This allows them to construct shared goals, plans and practices concerning the client’s functional capacity and physical mobility.

When the support of the elderly client’s functional capacity and physical mobility begins to take shape as a concrete object, the Mobility Agreement becomes a usable tool/instrument (Figure 6-6). This transition of the new solution from an object to a usable and functional tool/instrument/practice is fundamental in this developmental work research and implies that the physical exercises in the Mobility Agreement contain a conceptual core for the expanded object of mobility and functional capacity.

All this requires that when the primary contradictions, generating secondary contradictions between the new instrument and old rules and the division of labor in the two interacting activity systems (lightning-shaped double-headed arrows in Figure 6-6) Figure 6-6 are expansively worked out and transcended, a new, shared object will emerge between the two activities.
This emerging object, depicted in the center of Figure 6-6, is characterized as sustainable mobility. It is oriented toward modest but continual, jointly agreed-upon exercises embedded in daily home chores. The elderly person can practice their sustainable mobility together with the home care worker, but also gradually more independently and be jointly monitored for results and modifications. Such a solution as a regular element at the core of the home care Mobility Agreement may be an avenue toward sustainable mobility as the construction of an expanded shared object and new forms of shared transformative agency in home care.

The findings of Article IV indicate that efforts to develop and implement such agency-promoting practices as the Mobility Agreement should contain negotiations and debates between different orientations in home care encounters in order to overcome and transform deep-seated restrictive patterns (See Table 6-1).

Figure 6-6 Mobility-related contradictions as learning challenges in home care (Article IV, Nummijoki et al., 2018, p. 7).
Table 6-1 Specific findings in the four reviewed articles related to their specific sub-questions.

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Data</th>
<th>Main Concepts</th>
<th>Specific Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Article 1</strong></td>
<td>Two home care visits involving the same actors, before and during the implementation of the Mobility Agreement.</td>
<td>Six modalities of agency and coordination-cooperation-communication modes of interaction.</td>
<td>New forms of agency generated by the Mobility Agreement:</td>
</tr>
<tr>
<td>1. How does the agency of an old person with frail functional capacity and physical mobility and the agency of a home care worker manifest during their interaction in home appointments?</td>
<td></td>
<td></td>
<td>1. Agency by embodied remembering,</td>
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<tr>
<td>2. Do their agencies change as a result of cultivated working practices focusing on the old person’s functional capacity and physical mobility in the practical context?</td>
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<td></td>
<td>2. Agency by commitment to action,</td>
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<td></td>
<td></td>
<td></td>
<td>3. Agency by critical comparative reflection.</td>
</tr>
<tr>
<td><strong>Article 2</strong></td>
<td>13 video-recorded home care visits during which the Mobility Agreement was introduced, and one longitudinal process.</td>
<td>Concept formation, Germ cell Ascending from the abstract to the concrete.</td>
<td>A new concept – getting up from a chair:</td>
</tr>
<tr>
<td>1. Is it possible to identify a germ cell of a new concept of mobility in home care workers’ and their clients’ practical efforts to integrate physical mobility exercises into the routines of home care services and the client’s daily chores?</td>
<td></td>
<td></td>
<td>1. A way to transcend and overcome the contradiction between safety and autonomy as a germ cell for sustainable mobility – essential for coping.</td>
</tr>
<tr>
<td>2. How and through what actions do the actors use and develop the germ cell to ascend toward the concrete?</td>
<td></td>
<td></td>
<td>2. Embeds and integrates mobility into necessary everyday chores and actions, into the flow of the life activity of the elderly person,</td>
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<tr>
<td>3. What is the role of embodiment and physical enactment, and in particular of embodied social interaction, in this process of ascending from the abstract to the concrete?</td>
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<td></td>
<td>3. Sees mobility as accomplished and largely as performed together, jointly between the client and worker,</td>
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<td></td>
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<td>4. Frames physical mobility in terms of sustainability rather than in terms of achievement and competition.</td>
</tr>
<tr>
<td><strong>Article 3</strong></td>
<td>26 video-recorded home care visits, four of which were for detailed analysis.</td>
<td>Double stimulation, Critical encounter, Volitional action, Transformative agency, Concept formation.</td>
<td>- The planned and professionally initiated use of the Mobility Agreement succeeds when it connects and merges with client-initiated and incidental uses of artifacts as second stimuli.</td>
</tr>
<tr>
<td>1. What are the key characteristics of double stimulation in an everyday work activity facing transformations?</td>
<td></td>
<td></td>
<td>- Two features of double stimulation in mundane work:</td>
</tr>
<tr>
<td>2. What are the actions of volition and the conceptualization efforts in which the home care client and employee jointly participate in order for the Mobility Agreement to arise?</td>
<td></td>
<td></td>
<td>The interactional nature of generation and inhibition, and longitudinal, multi-phased and repeated nature in work activities.</td>
</tr>
<tr>
<td><strong>Article 4</strong></td>
<td>30 video-recorded home care visits, four of which were for detailed analysis.</td>
<td>Expansive and defensive cycles of learning.</td>
<td>- Both the home care worker and the client may engage in either a predominantly defensive or expansive learning cycle.</td>
</tr>
<tr>
<td>1. What kinds of learning cycles may be identified in home care encounters charged with implementing the new Mobility Agreement practice?</td>
<td></td>
<td></td>
<td>This phenomenon alerts us to the fact that in many learning processes it is not at all simple to determine who is teaching, leading or guiding whom.</td>
</tr>
<tr>
<td>2. What kinds of interplay may be detected between the parallel learning cycles of the home care client and the home care worker, respectively?</td>
<td></td>
<td></td>
<td>- Encounters in which the cycles of client and worker were aligned as either defensive or expansive tended to contain fewer learning actions than encounters in which the cycles moved in the opposite directions. The latter had orientational mismatches that left matters open and required further elaboration by the two parties.</td>
</tr>
<tr>
<td>3. What are the characteristics of defensive learning?</td>
<td></td>
<td></td>
<td>- The mismatches in the home care encounters revealed subtle movements in different directions, manifesting differences in largely tacit orientations rather than explicit differences in opinions or ideas. It seems that incompleteness and open-endedness generated further learning actions.</td>
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<td></td>
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<td>- Defensive learning actions and cycles were reflective and involved aspects of agency in at least four forms, namely learning to avoid, learning to constrain, learning to divert and learning to refuse.</td>
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<td></td>
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<td></td>
<td>The workers and clients engaged in defensive learning cycles learned to ward off the expansion of the script of home care visits to include systematic cultivation of the client’s physical mobility.</td>
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6.2 Answers to general research questions

As we saw in section 6.1, the four published articles of my dissertation can be bridged together to present a complete picture of the “learning opportunities in shared transformative agency in mobility-related home care encounters toward breaking new ground in home care encounters”.

The general research questions of my study to be answered by the results of my four published articles of the dissertation at hand were: (1) What prevents the formation of shared agency in home care? (2) What kinds of learning take place when an agency-fostering new practice is introduced in home care encounters? (3) What main insights are needed to accomplish a sustainable, agentive transformation process in home care? In the following, I introduce the general research questions of my study one by one and answer them using the findings that span the four dissertation articles presented in section 6.1 above.

In the following subsections (6.2.1, 6.2.2, 6.2.3) I present the central findings of my four articles (Article I–IV) and answer the research questions. A summary of the main findings is condensed in Table 6.2.

6.2.1 Research question 1

What prevents the formation of shared agency in home care? The central findings of the four articles (Article I–IV) that answer Research question 1 are the following.

In home care, shared agency means that the home care visit is carried out by means of interaction between the home care client and their caregiver. This interaction manifests and shapes the agency of both the home care client and the caregiver. The Mobility Agreement 15 contributes to the home care client’s functional capacity and physical mobility through physical actions planned and executed with the support of the home care worker. The implementation of such an agreement as a regular element at the core of home care services may present an avenue toward the construction of an expanded shared object and new forms of shared agency in home care.

The paradox of home care practice: Doing daily chores on behalf of the client instead of doing them together (by letting the elderly person get up from their chair and set the table and make their own snack) is common. This occurs because the client’s medication, nutrition, blood pressure and pulse measurements are seen as standard routines that leave no time for anything else.

When maintaining and improving the physical mobility of the client is not at the core of the daily tasks of home care, (when the home care worker and client each follow their assigned roles, concentrating on the successful completion of their individual assigned actions), the formation of shared agency is prevented (Article I). The preventing force seems to be the contradiction between the motives of safety (fear of falling) and autonomy (the need to move). Specifically, the safety motive leads the home care client to become increasingly dependent on external support, and any possible change in the home care script seems impossible, or the consequences of an agency fostering new practice (Mobility Agreement: sit-to-stand) takes too much time and resources (Article II).

Home care encounters are negatively impacted by the “twin evils” of mobility: the home care worker’s lack of interest, and the client’s desire for inactivity. Conflicts in the motives of the home care worker (fear of additional work and awareness of losing control and authority because of new competency demands) prevent the formation of shared agency. The findings of this study show that in situations of conflict of motives, the home care worker simply ignores the client’s movement-oriented initiative and shifts the focus of interaction back to the standard script, starting to take blood pressure, administer medications, or arrange the client’s meal. This means that the home care client’s expressions of will or novel physical actions are met with restrictive uses of artifacts by the home care worker (Article III).

Shared transformative agency seems to have a flip side which, in this study, we call “defensive agency”, represented by defensive learning actions and cycles in the encounters during home care appointments. (1) Learning to avoid, (2) learning to constrain, (3) learning to divert and (4) learning to refuse are four strategies

15 Mobility Agreement is both an agency fostering practice, which integrates mobility into necessary everyday chores and actions and a collaborative tool, a mediating device for facilitating negotiation and co-configuration between the client and the home care worker in mobility-related interactions.
evident in the actions and cycles of defensive learning that prevent the expansion of the script of the home care appointments and can be evidenced in both the home care workers and the clients (Article IV).

The overall answer to the first research question:

*Shared agency is prevented by conflicts of motives and defensive learning cycles coming from home care workers’ fear of additional work and new competence demands, and home care clients’ quest for safety (fear of falling). When the contradiction between the efficiency of the home care worker (doing their job) and the potential effectiveness of the home care service (maintaining functional capacity and reducing the social exclusion of elderly people) is not expansively resolved. Then the introduction of a shared object (sustainable mobility), a Mobility Agreement, becomes a source of frustration rather than a developmental process mediated by a useful tool and the promotion of physical mobility exercises in home care visits.*

6.2.2 Research question 2

What kinds of learning take place when an agency-fostering new practice is introduced in home care encounters? The central findings of the four articles (Articles I–IV) that answer Research question 2 are the following (see also ).

In this study, the Mobility Agreement in home care is the “agency-fostering new practice”. The Mobility Agreement is the embodiment of co-configuration in daily home care encounters between elderly people and their caregivers. It is a concept that transcends and overcomes the contradiction between safety and autonomy or between the fear of falling and the need to move, by framing physical mobility in terms of sustainability rather than in terms of achievement and competition. It embeds and integrates mobility into necessary everyday chores and actions, into the flow of the life activity of the elderly person, accomplished and largely performed together, jointly between the client and the home care worker (or some significant other).

The results of Article I indicate that “learning to overcome the contradiction between the immediate efficiency and the long-term effectiveness of the home care (maintained functional capacity and reduced social exclusion of elderly people)” is needed when an agency-fostering new practice is introduced into home care practices. There is a need to develop an expanded shared object which allows the home care client and the home care worker to construct shared goals, plans and practices concerning the clients’ functional capacity and physical mobility in order to support the elderly person’s limited resources in such a way that the person can continue to handle daily matters relatively autonomously. The elderly person’s functional capacity can be preserved for longer, frailty may be postponed, and the resulting risk of social exclusion may be reduced by learning new kinds of dialogue, and cooperation between the home care client and the home care worker.

During the learning process for using the Mobility Agreement as an agency-fostering new practice, we identified the generation of three new forms of agency: (1) agency by embodied remembering, (2) agency by commitment to action and (3) agency by critical comparative reflection (Article I).

The basic identification of learning in Article II was the home care client’s and the home care worker’s clear understanding of and commitment to getting up from a chair being a cornerstone of mobility. The specific expansive learning actions when an agency-fostering new practice is introduced in home care encounters seem to be questioning, modeling, examining the model, implementing, and reflecting on the process. In this study, these five types of learning actions, in a practical sense, (1) articulate a conflict of motives, (2) form a germ cell, (3) examine the germ cell model, (4) implement the model by ascending to the concrete, and (5) reflect on the process and its outcomes.

When we identified the initial simple germ cell as an agency-fostering new practice - getting up from a chair as a cornerstone of mobility, accomplished jointly with the home care worker and the client, it transformed into a form of practice in the home care encounters as six paths of implementation and expansion. Specifically: (a) straightening the back and gaining a better posture; (b) taking regular walks; (c) using sit-to-stand as a diagnostic aid; (d) teaching relatives to do mobility exercises; (e) setting the table; and (f) being in a better mood, taking care of oneself. (Article II.)
The conflict of motives of workers and their clients in the critical encounters during home care visits triggers double stimulation: Stimuli activate motives which are themselves in conflict with one another (Article III and IV). Article III reveals how the Mobility Agreement, as an agency-fostering new practice, serves to support double stimulation and mobility-oriented volitional actions. Namely: (1) the client’s one-sided expressions of will, (2) the home care worker’s instructions or encouragements to the client, (3) expressions of joint commitment to implement novel actions, (4) novel mobility-oriented physical actions by the client and (5) jointly accomplished novel mobility-oriented physical actions. The findings of Article III indicate that conceptualization efforts also accompany volitional actions, as a result of the expansive use of artifacts as second stimuli.

Article IV shows that double stimulation takes place in learning situations in which there is a struggle between the dominant script and the new practice in home care encounters. Another learning situation is the co-existence of two separate but intertwined processes of learning, namely that of the client and that of the home care worker. These learning cycles are seldom pure, they are usually mixed, and the interplay between expansive and defensive actions makes the cycles unpredictable. When one of the parties, either the home care client or the home care worker, is predominantly defensive and the other one is trying to expand, the dynamic tension seems to push the learning effort further. When both parties are expansively oriented toward learning together, they accomplish the questioning of the old and the modeling of the new practice: They are inclined to go directly into the implementation and consolidation of an agency-fostering new practice. When both parties are predominantly defending the old practice, the learning does not need to proceed to implementing and consolidating; implementation and consolidation of the old practice are already accepted, and learning actions are primarily needed to generate ways in which to prevent the new agency-fostering practice. (Article IV.)

The overall answer to the second research question:
Learning takes place when an agency-fostering new practice introduced in home care encounters requires the development of an expanded shared object, which allows the home care client and the home care worker to construct shared goals, plans and practices concerning the clients’ functional capacity and physical mobility. This requires new kinds of dialogue and cooperation. Reflective interaction is needed between the two separate but intertwined processes of learning of the home care client and the home care worker. In other words, what is needed is the client’s and the worker’s understanding of and commitment to an idea of embodied and discursive co-configuration, including continuous negotiation between the client, the home care worker, and eventually also other actors who contribute to the client’s overall home care service and well-being.

6.2.3 Research question 3
What main insights are needed to accomplish a sustainable, agentive transformation process in home care? The central findings of the four articles (Articles I–IV) that answer Research question 3 are the following.
In this study, a sustainable, agentive transformation process in home care was built into the practical introduction of the Mobility Agreement and mobility exercises through regular home care visits. When sustainable mobility is oriented toward modest but continuous, jointly agreed-upon exercises are embedded in daily home chores, carried out together with the home care worker as well as independently, and jointly monitored for results, agreed corrective actions and improvements.

The accomplishment of a sustainable, agentive transformation process requires the implementation of the Mobility Agreement as a regular element at the core of home care services. In other words, the home care client’s agency has to be supported and activated as their functional capacity during every home care appointment, with the outcome that the home care client’s performative functional capacity comes into focus in their own life context. Article I also shows how an education program with a set of easy-to-administer field tests provides the basis for home care workers to negotiate and implement Mobility Agreements with their clients, and the exercise program brochure serves as an intermediate stepping stone in the formation of a new shared object between the home care worker and the client.
The interplay between refreshing physical movements (mobility exercises) and a new meaningful mediating artifact (exercise brochure) released new forms of agency: (1) agency by embodied remembering, (2) agency by commitment to action and (3) agency by critical comparative reflection. These new forms of agency led to the expansion of the object of interaction and to collaboration, achieving the idea of the Mobility Agreement (and thus the idea of co-configuration) in an embodied way (Article I).

Getting up from a chair seems to be a necessary step and precondition in almost any daily action that involves moving physically from one place to another, and is therefore fundamental for maintaining elderly people’s ability to perform their functional activities and to reduce the risk of falling, therefore keeping them attached to an active social life. Getting up from a chair, as the new concept of sustainable mobility, transcends and overcomes the contradiction between safety and autonomy (between the fear of falling and the need to move), it integrates mobility into necessary everyday actions of the elderly person relying on innovative uses of everyday household artifacts. (Articles I and II).

The three interactive physical approaches at the core of the concept formation of sustainable mobility process are: (1) physically performing and/or examining movements aimed at implementing the new concept, (2) using material artifacts of the environment to enhance concept formation and (3) using bodily gestures and facial expressions to enhance the interactive construction of an observation, idea or feeling. (Article II).

The findings of Article III underline how “future making” occurs in critical encounters including volitional actions and conceptualization efforts. The expansive use of artifacts is of crucial importance for quality and continuity in critical encounters, in order to support the elderly person’s limited resources in such a way that they can continue with daily activities, their functional capacity can be preserved for longer, frailty postponed, and the resulting risk of social exclusion reduced.

As noticed in Article III, the planned and professionally initiated use of the Mobility Agreement probably best succeeds when it connects and merges with client-initiated and incidental uses of artifacts as second stimuli. In other words, the client’s suggestions/hints might bring new meaning to the artifacts or instruments as a second stimulus and lead to a partial revitalization of the Mobility Agreement.

Five substantive types of mobility-oriented conceptualization efforts of mobility are: (1) moving outside the physical boundaries of home, (2) regularity of mobility exercises, (3) conducting movement together with a home care worker or some significant other, (4) getting up from a chair as a key exercise and (5) integrating mobility exercises into daily chores (Article III).

The key idea needed to accomplish a sustainable, agentive transformation process in home care is a shared transformative agency, which requires designing, visualizing and an analytical experimental approach during the encounter. The Mobility Agreement, emerging as a new mediating tool, adds the latent primary contradictions and generate secondary contradictions between the new tool and old rules and division of labor to the two interacting activity systems. When these contradictions are expansively resolved and transcended, a new shared object, characterized as sustainable mobility, emerges between the two activities (Article IV).

Before an overall answer to my third general research question, I present the key messages of my sub-study results (Articles I–IV) regarding the main insights needed to accomplish a sustainable, agentive transformation process in home care as illustrated in Table 6-2:

Article I: Professionally-initiated use of the Mobility Agreement succeeds if and only when it connects and merges with client-initiated agency. Embodied remembering, commitment to action and critical comparative reflection are the samples with which to accomplish a sustainable, agentive transformation process in home care that leads to the expansion of the object of interaction and to collaboration. A collaborative tool, the Mobility Agreement, as a mediating device for facilitating negotiation and co-configuration between the client and the home care worker seems to achieve the idea of co-configuration in an embodied way.

Co-configuration work is reflective interaction in which the client and the caregiver focus on negotiation and agreement in order to reconceptualize their shared object, the script and the interaction between these.

Article II: Getting up from a chair in terms of sustainability. This is the concept of a germ cell for the maintenance and support of the elderly person’s functional capacity, postponement of frailty and reduction of the risk of social exclusion, and is a way in which to transcend and overcome the contradiction between safety and autonomy – essential for coping with everyday chores and actions, also performed together by the client and worker.
Article III: Both the artifacts occasionally used as second stimuli in the planned Mobility Agreement and the planned, professionally initiated use of the Mobility Agreement succeed best when connected and merged with client-initiated and incidental uses of artifacts as second stimuli.

It is possible that the parties may deal agentively with the “twin evils” of mobility, the home care worker’s lack of interest, and the client’s desire for inactivity and start expansive learning cycles that result in successful deployment of the Mobility Agreement.

Conceptualization efforts accompany the volitional actions resulting from the expansive use of artifacts as second stimuli in which the home care client and employee jointly participate. Getting up from a chair was the most frequent type of conceptualization and the germ cell of the emerging concept of sustainable mobility.

Article IV: In many learning processes, it is not at all simple to determine who is teaching, leading or guiding whom. When expansive learning is successfully accomplished, the participants – the home care worker and their client – construct a concept of their activity oriented toward the expanded shared object of sustainable mobility. This allows them to construct shared goals, plans and practices concerning the client’s functional capacity and physical mobility.

The generative solution of mobility support, the Mobility Agreement, must include the transition from object to tool or instrument in order to reach the idea between the immediate efficiency of home care and the long-term effectiveness of the service (maintained functional capacity of elderly people). This study suggests that the main insights, i.e., novel ideas, practices and forms of work, which are needed to accomplish a sustainable, agentive transformation process in home care, are the following.

The overall answer to the third research question:

A sustainable, agentive transformation process in home care needs co-configuration work aimed at the maintenance and support of the elderly person’s functional capacity, the postponement of frailty and the reduction of the risk of social exclusion.

The planned and professionally initiated use of the Mobility Agreement succeeds when it connects and merges with client-initiated and incidental uses of artifacts as second stimuli.

The expansive use of artifacts is of crucial importance for the quality and continuity of future making in critical encounters.
### Table 6-2 Summary of research findings in reviewed scholarly articles related to general research questions

<table>
<thead>
<tr>
<th>Research Question</th>
<th>ARTICLE I</th>
<th>ARTICLE II</th>
<th>ARTICLE III</th>
<th>ARTICLE IV</th>
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</thead>
<tbody>
<tr>
<td>I</td>
<td>Towards co-configuration in the home care of the elderly: Cultivating agency by designing and implementing the Mobility Agreement</td>
<td>Embodied germ cell at work: Building an expansive concept of physical mobility in home care</td>
<td>Double stimulation in everyday work: Critical Encounters between home care workers and their elderly clients</td>
<td>Defensive and expansive cycles of learning: A study of home care encounters</td>
</tr>
<tr>
<td></td>
<td>What prevents the formation of shared agency in home care?</td>
<td>The paradox of home care practice: Facilitating the development of expansive agency in home care</td>
<td>Conflicts of motives emerge when the new practice, the Mobility Agreement, is introduced and implemented. The workers’ resistance comes from the fear of additional work and new competence demands. The critical encounters generate micro-contexts in which artifacts are employed to deal with the dimension of restrictive use. The home care worker meets the client’s expressions of will or novel physical actions with restrictive uses of artifacts. This happens by ignoring the client’s movement-oriented initiative and shifting the focus of interaction back to the standard script by starting to measure blood pressure, dispense medications, or arrange the client’s meal.</td>
<td>Transformative agency has a flip side called defensive agency, which represents its expansive counterparts. Defensive learning cycles are oriented toward preventing the new practice of sustaining the promotion of physical mobility exercises in home care visits. Reducing an elderly person’s agency during a home care encounter maintains the client’s dependency. When a demanding new practice is introduced, the existing routines are both challenged and defended. Defensive actions also involve learning. Actors learn to protect their routines and to prevent the adoption of novel actions. Attention is paid to relatively complex forms of defensive learning and preventing the expansion of the script of home care visits: (1) learning to avoid, (2) learning to constrain, (3) learning to divert and (4) learning to refuse.</td>
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<td>What kinds of learning take place when an agency fostering new practice is introduced in home care encounters?</td>
<td>Learning to overcome the contradiction between the immediate efficiency and the long-term effectiveness of home care requires the development of an expanded shared object, which allows the home care client and the worker to construct shared goals, plans and practices concerning the clients’ functional capacity and physical mobility. New kinds of dialogue and cooperation between the home care client and worker and between home care providers lead to the formation of the Mobility Agreement.</td>
<td>Mobility-oriented volitional actions: (1) client’s one-sided expressions of will, (2) home care workers’ instructions or encouragements of the client, (3) expressions of joint commitment to implement novel actions, (4) novel mobility-oriented physical actions by the client, and (5) jointly accomplished novel mobility-oriented physical actions.</td>
<td>Two sites of learning: (1) a struggle between the dominant script and the new practice, and (2) home care client or workers implementing the new practice and its outcomes. What kinds of learning take place when an agency fostering new practice is introduced in home care encounters?</td>
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<td></td>
<td>What main insights are needed to accomplish a sustainable, agentic transformation process in home care?</td>
<td>The implementation of the Mobility Agreement as a regular element of the core of home care supports the home care client’s agency, and performative functional capacity comes into use in the life context. An education program should have a set of easy-to-administer field tests as the basis for home care workers to negotiate and implement Mobility Agreements with their clients. A new jointly accomplished concept of sustainable mobility emerging in the movement of getting up from a chair integrates mobility into the everyday actions of the elderly person relying on innovative uses of everyday household artifacts. Intuitive physical approaches: (a) physically performing and/or examining movements aimed at implementing the new concept; (b) using material artifacts of the environment to enhance concept formation; and (c) using bodily gestures and facial expression patterns in home care?</td>
<td>Future making happens in critical encounters including volitional actions and conceptualization efforts. The planned and professionally initiated use of the Mobility Agreement succeeds and is connected and merged with client-initiated and incidental uses of artifacts as second stimuli. Mobility-oriented conceptualization efforts: (1) moving outside the physical boundaries of home, (2) regularity of mobility exercises, (3) conducting movement together with a home care worker or the home care client and worker.</td>
<td>The restrictive patterns in home care are transformed by developing and implementing agency-promoting practices such as the Mobility Agreement. The key idea is shared transformative agency, which requires designing, visualizing, and an analytical experimental approach during the encounter.</td>
</tr>
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</table>
necessary step and precondition in daily action, moving from one place to another and maintaining elderly people’s ability to perform functional activities, reduce the risk of falling, and keep them attached to an active social life. 

Agency: by embodied remembering, by commitment to action, and by critical comparative reflection, leads to the expansion of the object of interaction and to a collaboration achieving the idea of the Mobility Agreement in an embodied way.

expressions to enhance the interactive construction of an observation, idea or feeling.

some significant other, (4) getting up from a chair as a key exercise and (5) integrating mobility exercises into daily chores. The expansive use of artifacts support elderly people’s resources in such a way that they continue daily activities and functional capacity is retained for longer, frailty is postponed and the resulting risk of social exclusion is reduced.

The Mobility Agreement as a new instrument adds latent primary contradictions, generating secondary contradictions between the new instrument and old rules and division of labor in the two interacting activity systems. If and when these contradictions are expansively resolved and transcended, a new shared object, characterized as sustainable mobility, will emerge between the two activities.
7 Discussion and conclusions

This chapter concludes my study with a discussion and conclusions. My findings indicate that the cultivation of shared transformative agency is possible through changes in the paradigms for interaction in home care, by transforming work practices as part of both the client’s life and the home care worker’s daily work.

Transformative agency appears when the actors break away from a given frame of action and take the initiative to transform it (Engeström, 2005a; Virkkunen 2006a). When shared transformative agency appears, the home care client and home care worker search for and tailor together a new form of supportive activity that contributes to the home care client’s functional capacity and physical mobility through physical actions. The gap between learning and instruction (normative script) seems to be the source of creative deviation and agency (Engeström, 2016, p. 34). In my study, I focused on this gap and analyzed it in detail.

The emerging object, the sustainable mobility of the client, is oriented toward modest but continuous, jointly agreed-on exercises, embedded in daily home chores, carried out largely together with the home care worker. Independence grows, jointly monitored for results and modifications.

In this chapter, I discuss and promote my concerns about shared transformative agency through a shared object with the help of a mediating tool/instrument. This shared object, which allows participants to construct shared goals, plans and practices, is the clients’ functional capacity and physical mobility. The shared tool/instrument created in mobility-related interactions in the encounters between home care workers and their elderly clients in this study is the Mobility Agreement.

I first briefly discuss the study’s common thread, i.e. the need and possibility for efforts to develop and implement such an agency-promoting practice as the Mobility Agreement.

Then I discuss the four perspectives on agency prompted by my study articles (Articles I–IV), toward the definition of shared transformative agency with the development of the shared object of the home care client and home care worker, and its implication for home care.

The discussion continues with the move from cycles of learning to future study openings on orientations in practice. I explain the possible orientations available to practitioners in order for them to construct the concept of their activity and orient it toward the expanded object of sustainable mobility.

Then I continue by looking to the future and the possible new research trends by moving from dyads to suitable knots. In other words, new forms of work in home care that increasingly require negotiated knotworking (Engeström, 2018, p. 208) across boundaries between different orientations in care encounters.

7.1 Central theme of study

My understanding formed a common thread during this study and helped me answer the three main research questions (6.2) and focus on whether and how the shared transformative agency of home care workers and their elderly clients could break new ground in home care encounters.

I argue that there is an increasing need for continuous developmental negotiation and collaboration. I believe that home care workers, in their role of service provider, have the capacity and willingness to adopt cultivated work practices to accomplish a sustainable, agentive transformation process in their work. This should primarily take the form of co-configuration in joint interventions within the multilearner settings engaged in a challenging shared task and object in the area of social and health services. These negotiations and interventions should become the avenue for prompting and supporting clients’ and practitioners’ active involvement in transforming the system in which they are involved.

Home care encounters have an in-built asymmetry between the potentially powerful worker and the potentially powerless elderly client. Because of this, the learning challenge requires reorientation from both parties to avoid the formation of shared agency being prevented. The client’s object should focus strongly on available daily tasks and physical mobility and performative agency, whereas the home care workers should redirect their object from the tasks/routines they are supposed to complete during their visit to focus on the
client’s functional capacity and physical mobility. In this way, home care workers can adapt their normal routines to have a clearer focus on the best longer-term interests of the elderly person in terms of the client’s functional capacity and physical mobility, in the practical context of the home environment.

The home care worker has to continually repeat the exercises with the client – show and instruct the client and his or her significant others how to complete the actions in order to help the home care client do the exercises, and to dare go beyond their reduced functional capacity and physical mobility.

I also argue that the Mobility Agreement, in actively engaging the client in the activities conducted during a home care visit, empowers the home care client to form volition and agency. During home care encounters, both defensive and expansive moves/actions are typically matters of negotiation and coordination of perspectives, requiring a degree of reflection. Actions of resistance (Sannino, 2010), that is, fending off a novel challenge and protecting the status quo, are agentive in their own right and need to be analyzed as such. Learning, which takes place when an agency-fostering new practice is introduced in home care encounters, means making the differences explicit and reflecting on them. This may be a starting point for further expansion and may embrace negotiations and debates between different orientations in care encounters.

The Mobility Agreement, as a multifaceted tool, enables the home care client to reconceptualize a conflict situation, and to look ahead beyond their reduced functional capacity and physical mobility. Expansive learning in the implementation of the Mobility Agreement sets contradictions on the move, and learners (Sannino et al., 2016) take actions to change their activity. The shared transformative agency of the learners (i.e. the home care client and the worker) is a key quality of expansive learning.

Every home care visit is carried out by means of interaction between the home care client and their caregiver, and possibly other involved people. These interactions manifest and shape the agency of both the home care client and the caregiver – creating the possibility for shared transformative agency. Shared transformative agency requires volitional actions in encounters of actors. Mutual volition is the core of shared transformative agency, defined as breaking away from the given frame of action and taking the initiative to transform it.

A conceptualization attempt is an articulation of an idea that has integrative potential to establish a perspective for a solution to the problem or conflict of motives. Available literature indicates that maintaining and improving clients’ functional capacity and physical mobility as a core part of the daily tasks of home care reduces the social exclusion of elderly people.

Shared transformative agency, which allows the home care client and the home care worker to construct shared goals, plans and practices concerning the clients’ functional capacity and physical mobility, requires new kinds of dialogue and cooperation. Co-configuration between the home care client and the home care worker is needed, but in addition to these immediate parties, the engagement of multiple support agencies, including significant others involved in support at home, is needed. The efforts to develop and implement an agency-promoting practice such as the Mobility Agreement need to embrace negotiations and debates between all the different orientations in care encounters.

The sustained development of shared transformative agency is, however, often difficult, despite high-level management support. According to Virkkunen (2006a), it is hard to create and sustain shared transformative agency that crosses vertical and horizontal boundaries in the organizational structure. When working, those who need to collaborate are usually located in different units and represent different professional cultures and levels of authority. These observations highlight the fact that the shared transformation of a concept for an activity system involves not only the main productive activity, but also management support and development structures.

### 7.2 Four perspectives on agency in home care

The findings of the four published articles show four perspectives on agency in the definition of shared transformative agency, when the development of the shared object concerns both the client and the worker, and its implication for home care.
The first article illustrates this study’s first perspective on agency. Its results concerned the co-configuration scenario in home care with new forms of agency generated by the Mobility Agreement and determined the connection between co-configuration, agency, embodiment, and artifacts.

The home care clients’ performative functional capacity should come into focus as part of their own life context. Home visits focus on how the client uses or does not use the functional capacity resources that are available to them. Agency fundamentally connects to the body, to intentional physical movement and to the human being’s ability to move around. To build new kinds of agency, new mediating artifacts are needed.

The Mobility Agreement differs from the normative script of home care as it actively engages the client in the activities conducted during a home care visit and in the promotion of mobility. It can promote new features of an elderly person’s agency such as embodied remembering, agency by commitment to action, and agency by critical comparative reflection. These shared transformative views of agency are elements of the multifaceted Mobility Agreement in the experimental focus of the home appointment.

Co-configuration work requires a multi-level instrumentality (Engeström, 2007b) to accomplish shared transformative agency. It requires new kinds of agency from both the client and the service provider. The client must continuously assess their own needs and experiences and take initiatives to shape the service accordingly. The home care worker must be willing to change and allowed to adapt the shape of the service and experiment with new patterns of service when a need arises.

The issue was physical movements by the client supported by the home care worker, jointly accomplished. The interplay between animating physical movements (mobility exercises) and a new meaningful mediating artifact (exercise brochure) triggered new forms of agency. The expansion of the object, namely the client’s functional capacity and physical mobility, is largely achieved by the agentive actions of embodied remembering, commitment to action, and critical comparative reflection.

The home care clients’ performative functional capacity should move into focus in their own life context. The transition of the home visit’s focus toward how the client uses or does not use the functional capacity resources that are available to them seems to be the key issue for shared transformative agency. Once the transition is made, the resulting expanded object can eventually be stabilized with the help of the Mobility Agreement.

The second article looked in particular at getting up from a chair as a potential germ cell for a new kind of shared transformative agency. In this study, the theoretical and methodological principle of ascending from the abstract to the concrete (Ilyenkov, 1982; Davydov, 1990) became a pathway to defining the key notion of “germ cell” and applying it in the analysis of the collective formation of a new concept of mobility, primarily by means of bodily movements. Working out an initial germ cell abstraction provides the basis for the stepwise generation of multiple concrete implementations.

The four essential qualities of a germ cell that may lead to an expansive theoretical concept are: (1) It is the smallest and simplest initial unit of a complex totality; (2) it carries in itself the fundamental contradiction of the complex whole; (3) it is ubiquitous, so commonplace that it is often taken for granted and goes unnoticed and (4) it opens up a perspective for multiple applications, extensions and future developments.

Getting up from a chair is ubiquitous; it is often a necessary step and a precondition in almost even more complex daily actions that involve moving physically from one place to another. Thus, getting up from a chair could be fundamental for maintaining elderly people’s ability to perform their functional activities and reduce the risk of falling, and therefore keep them attached to an active social life.

As a theoretical concept, understood as continuous dialectical movement from the abstract to the concrete, the germ cell plays a crucial role. The new concept is a way to transcend and overcome the contradiction...
between safety and autonomy, or between the fear of falling and the need to move. Getting up from a chair is movement aimed at strengthening the muscles and improving balance which then makes further movement possible and safe and reduces or eliminates the fear of falling.

The concept embeds and integrates mobility into necessary everyday chores and actions, into the flow of the elderly person’s life activity. It sees mobility as accomplished and largely performed together, jointly, by the client and the home care worker (or some significant other) as shared transformative agency. It frames physical mobility in terms of sustainability and activates innovative uses of everyday household artifacts such as chairs, tables, stairs, mirrors and utensils.

The third article opened up the meaning of the artifacts used during critical encounters as events in which two or more actors come together to deal with a problem that represents both a potentially shared object and a conflict of motives. To resolve the problem, the actors might use mediating artifacts and draw on available source domains to take volitional action and to attempt to conceptualize the situation.

Volitional action is the form in which transformative agency is realized. Actors at daily work face transformations, and transformations require volitional actions. Having to overcome an obstacle, to resolve and break out of a conflict of motives, is what makes their actions volitional. A volitional action is also a change action, an action that transforms the situation and gives it a new meaning. It is the core of transformative agency.

Goal-directed actions give a form to activities. The object determines the possible goals and actions, functioning as the motivational force driving the activity forward. The object in this encompasses a tension between the need for safety and craving for autonomy, i.e., between fear of falling and desire for movement as a primary contradiction in the life activities of frail, elderly home care clients.

Volitional action is the core of transformative agency. Transformative agency leads to envisioning and implementing new possibilities. Critical encounters in this study are sites of learning, understood as formation of transformative agency.

Conceptualization efforts accompany volitional actions resulting from the expansive use of artifacts as second stimuli. The emerging concept of sustainable mobility seems to open a way to deal with “twin evils” of mobility: the client’s desire for inactivity, and the home care worker’s lack of interest and time. Small actions of shared transformative agency might start expansive learning cycles resulting in successful deployment of the Mobility Agreement.

Conceptualization attempts may be made by means of sketching possibilities; putting forward suggestions; making commitments, formulating definitions, agreements or decisions and proposing names or integrative symbols. Critical encounters are interconnected in time and space and form temporal chains and spatial trails.

Concept formation and volition in collaborative work involves extensive on-site observation and recording of events that require conceptualization and volitional action from practitioners and their clients. The critical encounters here serve as focal events and units of data collection and analysis usually captured through longitudinal cognitive ethnography.

The new collective concept of “sustainable mobility” emerges by expansion from the germ cell of the simple movement of getting up from a chair. This new concept transcends and overcomes the contradiction between safety and autonomy. It embeds and integrates mobility into the necessary everyday actions of the elderly person. It is accomplished jointly with the home care worker and relies on the use of everyday household artifacts, and this new shared object between activity systems captures the possible resolution of the twin evils.

The discursive and enactive dynamics of the critical encounters engender or defeat the formation of the concept of sustainable mobility. The fundamental principle of the formation of will and agency, double stimulation, is of great importance for work activities and organizations facing transformations. Shared transformative agency and volition refers to the ability to go beyond routine activities and conditions, such as the normative script of home care, and collectively learn something new.

A meaningful tool is one that enables a person to conceptualize a conflict situation that they have encountered, and to look ahead to see how it can be applied to future situations. The Mobility Agreement is a meaningful tool. It is intertwined with concept formation and enables the formation of volition and agency. It
enables a person to conceptualize a conflict situation that they have encountered, and to look ahead to see how they can apply it to future situations.

The double stimulation emerges when a person experiences conflicting motives in a particular situation. The situation is the first stimulus, and the second stimulus appears when the person seeks to resolve the conflict by taking into use a tool, such as a word or a sign. This intermediary tool has to be relevant to the individual in order to use it in structuring the situation.

The notion of volitional action (Vygotsky's, 1987, 1997) is crystallized in a change action, an action that transforms the situation and gives it a new meaning. In this perspective, volitional action is the core of transformative agency, defined as breaking away from the given frame of action and taking the initiative to transform it. Having to overcome an obstacle, to resolve and break out of a paralyzing conflict of motives, is what makes an action truly volitional.

Transformative agency goes beyond the conventional notions of agency in that it stems from encounters with, and examination of disturbances, conflicts and contradictions in a collective activity and leads to envisioning and implementing new possibilities. Transformative agency goes beyond the individual as it seeks possibilities for collective change efforts – shared transformative agency.

The home care workers and elderly clients in the study faced the challenge of implementing a new practice called the Mobility Agreement, aimed at integrating regular mobility exercises into the daily routines of the client. The key characteristics of double stimulation in an everyday work activity facing transformation are the dimension of restrictive versus the expansive use of artifacts and the dimension of incidental versus the planned use of artifacts. Artifacts can be used both restrictively, to avoid engaging in the implementation of the Mobility Agreement, and expansively, to initiate and support actions implementing the Mobility Agreement.

Critical encounters are fruitful breeding grounds for double stimulation in work activities because of the interactional nature of the generation – and inhibition – of double stimulation, and the longitudinal, multi-phased and iterative nature of work activities. Conceptualization efforts often accompany the volitional actions resulting from the expansive use of artifacts as second stimuli.

The mediating artifact appears as a second stimulus captured by the actor faced with a first stimulus, which contains conflicting motives. The second stimulus can be something taken up by the actor on the basis of their repertoire of artifacts and representations. In both cases, the second stimulus typically stems from the source domains available to the actors in terms of their institutional, professional and educational backgrounds (Nersessian, 2008). When the actors invest actionable meaning in the second stimulus, the artifact becomes a sign that the actors can use to guide and empower their actions.

The fourth article resulted in an understanding of the importance of learning, and in particular, of learning cycles, as a perspective of shared transformative agency. Expansive learning happens when, while creating a new practice, the actors are able to take over and become the users of a new practice. It also has another side called defensive agency.

Many elderly people are caught in a cycle of learned helplessness that allows them to believe that they are not worthy or capable of active and independent living (Deegan, 1992). This internalized stigma often fits all too well into the script of the home care worker, oriented toward quick and seemingly efficient “doing on behalf of” rather than more interactive and demanding “doing with” (Jones, 2007). Reducing an elderly person’s agency during a home care encounter maintains and reinforces the client’s dependency. The result often resembles a vicious circle of a fear of falling that leads to an increased likelihood of falling.

In expansive learning, learners take actions to change their activity and to generate transformative agency among themselves (Sannino et al., 2016).

This fourth article points toward important extensions of the notion of transformative agency in the context of home care. Transformative agency may be understood in terms of shared actions emerging through negotiation, contestation, and collaboration between two (or more) learners engaged in a challenging shared task and object. Learning seems to be an interplay, a movement between expansive and defensive learning actions of the home care client and the worker. These orientational mismatches between expansive and defensive learning actions created situations in which the conclusion was left open and unfinished. It seems
that this very quality of incompleteness and open-endedness generated further learning actions, but mismatches require great care, as they can obviously also become harmful and exploitative.

Home care clients seem to engage with their caregivers in defensive learning cycles to prevent the expansion of the home care visits’ script to include systematic cultivation of the client’s physical mobility. In this study, they learned to avoid, constrain, divert and refuse.

Such forms of defensive learning are potentially deliberate and more complex than the simple conditioning mechanisms traditionally attributed to defensive learning. However, defensive learning in itself did not generate richer sets of learning actions. When both parties take a predominantly defensive learning stance, it is almost impossible for the learning cycle to move toward the actions of the Mobility Agreement. Participants may have good reasons to engage in defensive learning actions and cycles.

A more productive approach would be to initiate dialogues in which the defensive orientation has a chance to be argued and elaborated on, safely and without pressure. This negotiated learning goes beyond opposition and is somewhere between straightforward acceptance and stubborn resistance. A new practice might be a key quality of expansive learning and a move toward shared transformative agency.

Home care encounters have an in-built asymmetry between a potentially powerful practitioner and a potentially powerless elderly client. When the learning challenge requires reorientation from both parties, the power relations seem to become much more open ended and mutable. When both the home care worker and the client engage in either a predominantly defensive or a predominantly expansive learning cycle, one can see that in many learning processes it is not at all simple to determine who is teaching, leading or guiding whom.

7.3 From cycles of learning to orientations in practice

The four perspectives I introduced in the previous section (7.2), based on my findings regarding shared transformative agency, raise further questions about the concept of orientation. Therefore, in this section, I present some new perspectives for possible further studies.

During my research journey, the analysis of learning cycles led me to identify possible orientations available to home care workers and clients. I created a diagnostic lens of orientations of the home care client and home care worker in my data (Appendix 3 and Table 1-1). I thoroughly examined the encounters and identified the possible orientations of the dyads.

The identification of learning actions leads to the construction of different kinds of learning cycles. On this basis, I categorize different types of orientations among home care clients and workers. I categorize the tentative orientation types of the home care clients using the dimensions “dependent versus independent” and “passive versus active”. I also categorize the tentative orientation types of home care workers using the same dimensions, resulting in orientation types that correspond to different types of expertise found in the literature.

However, I would like to point out that the individual orientation for both the client and the worker may change during an encounter or between encounters. For example, the home care client may not want to get up from the chair in one meeting but may have changed his or her mind by the next. Articulation of and reflection on contradictions between the orientations might enable the parties to refocus and overcome their orientational mismatch.

Before my own interpretation of orientations in home care work, I explored some earlier studies of orientation at work. It seems that the interest has mainly been in studying professional role orientations (Gouldner, 1957; Epstein, 1970; Reeser, 1992; Van Veen et al., 2001; Opfer et al. 2011) some previous studies have been concerned with client orientations alongside professional orientation.

In the mid-fifties, Gouldner (1957) analyzed organizational roles and identities. He identified three variables for analyzing latent identities: loyalty to the organization, commitment to professional skills and values and reference group orientations. Epstein (1970) found the bureaucratic orientation to be conservative, and a client orientation tending toward radicalization. Reeser’s (1992) study results are similar to those of Epstein (1970). She studied the effects on the client’s social action, and the bureaucratic and professional role orientations of social workers. She discovered that orientation to the profession, combined with client orientation, strengthened the activist effects of client orientation on practice groups in social work. Although
neither bureaucratic nor professional orientation appeared to be supportive of activism (social workers’ commitment to various strategies of social change toward public welfare and mental health), client orientation encouraged it.

Van Veen et al. (2001) explored how teachers view their professionalism in order to identify ideas for successful schools and education reform. In the study, secondary school teachers were asked about their professional orientations. The researchers found four types of professional orientations (p. 188): a restricted versus extended orientation toward the school organization, and a traditional versus progressive orientation toward instruction and goals of education. Teachers differed in their orientations toward instruction, educational goals and their role in the school organization. Their progressive orientation (with regard to instruction and the goals of education) was sometimes aligned with an extended orientation (with regard to the school organization), and their traditional orientation sometimes aligned with a restricted orientation. The study found no alignment between a progressive and restricted orientation, or a traditional and an extended orientation.

Salmela-Aro and Nurmi (2004) have also examined work-related orientations. They identified four types of motivational orientations among the employees of a public sector educational institution in Finland: work-orientation, self-orientation, hobby-orientation and health-orientation.

In activity-theoretical studies, the notion of orientation operates at the level of collective activity, rooted in the cultural-historical specifics of a concrete activity and containing both cognitive and motivational aspects of orientation. Orientation types have been derived from historical and empirical studies of qualitatively different ways in which practitioners conceptualize their object and act upon it to perform concrete tasks. Different work orientations represent different types of expertise among the practitioners. (Engeström & Engeström, 1986; Engeström, 1993; Cole & Engeström, 1993.)

The object of an activity is its “true motive” (Leont’ev, 1978, p. 62), something to which a living being relates as the driving purpose of the activity (Leont’ev, 1981, p. 49). The functional capacity and physical mobility of an elderly person is both an individual and a shared relational (Edwards, 2005) journey. The object motivates intentional participation and transforms through participation (Sannino & Engeström, 2016).

In home care as a result, the learning challenge requires reorientation from both parties. The client’s object should focus strongly on mobility, whereas the home care worker’s object should be redirected from the tasks that are supposed to be completed during a visit to focus on the client’s functional capacity and physical mobility. In this way, the worker can adapt his or her normal routines with a clearer focus on the longer-term interests of the elderly person in the practical context of the home environment.

Efforts to develop and implement agency-promoting practices such as the Mobility Agreement should contain negotiations and debates between different orientations in home care encounters in order to overcome and transform such deep-seated restrictive patterns. The findings of my study invoke the question of considered articulation of different orientations. It may be beneficial to guide home care workers and clients to make explicit their orientations to the systematic facilitation of physical mobility.

I now provide an illustration of tentative orientation types of home care clients (Figure 7-1, Table 7-1) and home care workers (Figure 7-2; Table 7-1) in their encounters during home care appointments, based on my interpretation and further extrapolation of the study at hand. A comprehensive table detailing the topics of tentative orientations (data of 30 cases) and their coding is available in Appendix 3 as the diagnostic lens of the orientations of the home care clients and home care workers.

Figure 7-1 Home care clients’ life orientations and Table 7-1 show the tentative orientation types of home care clients: The dimensions are dependent versus independent and passive versus active, arriving at four orientation types that correspond to different types of home care clients’ life orientations.

In cases when the home care client is “losing independence”, but still independent, though mainly passive, they join in with the daily chores during the home care encounters (CIP in Table 7-1). During encounters when the home care client is “keeping up”, they want to be independent and active, maintaining and improving their functional capacity and physical mobility (CIA in Table 7-1). When the client’s orientation is “lost and dependent”, the client seems to be dependent on the home care worker’s orientation when discussing support for their maintenance and improvement of functional capacity and physical mobility. They are passive in the
management of their daily life and improving their functional capacity and physical mobility (CDP in Table 7-1). In cases when the home care client is already dependent on services delivered at home – especially during home care encounters, but still active, in other words “trying and willing to get better”, they are willing to improve their functional capacity and physical mobility. This client might be pushing or pulling the home care worker into expansive learning actions in spite of the overall defensive orientation of the home care worker with “defensive routines and the old home care script” (CDA in Table 7-1).

Figure 7-1 Home care clients’ life orientations

Figure 7-2 and Table 7-1 shows the tentative orientation types of home care workers. The dimensions of these orientation types are making the client dependent versus promoting the client’s independence and passive versus active, resulting in orientation types that correspond to different types of individual views of the expertise (Engeström, 2018, p.7) of the worker, as illustrated in Figure 7-2.

When the home care worker is oriented toward promoting the client’s independence in a passive way, as identified in this study, I call this tentative orientation “tacit expertise” (abbreviated as WIP in Table 7-1). In my interpretation, a “tacit expertise” orientation of the home care worker during home care encounters would be helpful for home care clients with the orientations of “Keeping up” = independent and active (CIA), “Trying and willing to get better” = dependent and active (CDA) and “Losing independence” = independent and passive (CIP).

In some cases in this study, the home care worker was oriented toward active promotion of the client’s independence during the home care encounter and had the orientation of “interactive expertise” (abbreviated as WIA in Table 7-1). In my interpretation, a home care worker’s “interactive expertise” orientation, and actively promoting the client’s independence might work when the home care clients have the orientations of “Keeping up” = independent and active, “Trying and willing to get better” = dependent & active, “Losing independence” = independent and passive and “Lost and dependent” = dependent and passive (CDP).
If the home care workers are tentatively oriented toward “defensive routines and the old home care script” (abbreviated as WDP in Table 7-1), they might not realize that they are most probably making the client dependent and passive. Based on this study data, the home care worker with the orientation of making the client dependent and passive during the home appointment appears to neglect the promotion of the client’s volition to refresh their functional capacity and physical mobility. In cases in which the home care client is dependent on services and is passive in regards to anything that helps them get by on their own, the encounter with the home care worker with the “defensive routines and the old home care script” orientation most probably does not accelerate the client’s volition. In addition, home care clients with the “losing independence” orientation might be in danger of losing their volition for independent life in these encounters. Even home care clients with the orientations of “keeping up” = independent and active and “trying and willing to get better” = dependent and active would be at risk if the home care workers’ “defensive routines and old home care script” orientation continued.

When meeting a home care worker with the “learning to change the old home care script” orientation (adaptive expertise), a home care client will most probably be rendered passive if the home care worker has the orientation of making the client dependent and active (abbreviated as WDA in Table 7-1). Nevertheless, the active part of the worker’s orientation, namely “learning to change the old home care script”, may still lead to a new home care script. In other words home care clients with the orientations of “Keeping up” = independent and active or “Trying and willing to get better” = dependent and active or “Losing independence” = independent and passive or “Lost and dependent” = dependent and passive may obtain support for their frail functional capacity and physical mobility in order to challenge the shared transformative agency alongside this home care worker with adaptive expertise.

The home care clients’ tentative life orientations and the home care workers’ tentative work orientations (Table 7-1) may resonate with Edwards’ (2017, p. 134) interpretation of relational expertise. When the home care worker uses their capacity to interpret problems with the client, their relational expertise might reflect a sense

Figure 7-2 Home care workers’ work orientations

Promoting the client’s independence

“TACIT EXPERTISE”

“INTERACTIVE EXPERTISE”

“DEFENSIVE ROUTINES & THE OLD HC SCRIPT”

“LEARNING TO CHANGE THE OLD HC SCRIPT”

Passive

Active

Making the client dependent

Making the client dependent

Passive

Active

Promoting the client’s independence

“TACIT EXPERTISE”

“INTERACTIVE EXPERTISE”

“DEFENSIVE ROUTINES & THE OLD HC SCRIPT”

“LEARNING TO CHANGE THE OLD HC SCRIPT”

Making the client dependent

Passive

Active

Promoting the client’s independence

“TACIT EXPERTISE”

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Active

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Passive

Active

Breaking New Ground in Home Care Encounters
of knowing how to know whom. This fuses the home care worker’s professional and creative efforts with the exercise of enhanced agency with the home care client (Edwards, 2017). On the other hand, it is notable that expertise is a multi-sided phenomenon with various forms of movement, boundary crossing, translation and negotiation, which has to be analyzed on the basis of a process of learning that involves practitioners facing and shaping transformations at work. (Engeström, 2018, p. 11.)
To support a new, expanded object of activity that may lead to shared agency in home care requires questioning and breaking away from the constraints of the existing activity and embarking on a journey across an unfamiliar area (Engeström & Sannino, 2010, p. 7). At the beginning of a formative intervention, the object may be only abstractly mastered as a partial entity (Sannino & Engeström, 2016). In my study, the Mobility Agreement was at first separated from the functional relationships within and between activities. Initially, it appeared to be the “object” instead of having the role of a “tool/instrument”.

By means of experimentation with new options, an abstract object can be progressively cultivated into concrete systemic manifestations and transformed into a material object that resonates with newly emerging needs (Sannino & Engeström, 2016). This often requires the subjects to struggle and break out of previously acquired conceptions that are in conflict with new emerging ones (Sannino, 2010). This process opens up multiple opportunities for the learner to creatively experiment with new solutions and innovative ideas. This can lead to qualitative transformations at the level of both individual actions and collective activity and its broader context (Engeström & Sannino, 2010).

Home care encounters offer an environment for learning. The learning challenge of implementing the Mobility Agreement is to overcome or transcend the contradictions in the activities of the client and the home care worker. For the client, the primary contradiction is between autonomy and safety. For the worker, on the one hand, it is between saving labor by adhering to the standard procedure and responding to the client’s vital needs proactively and collaboratively. At the core of the learning challenge lies the struggle between short-term cost efficiency and longer-term impact. Double stimulation is a core principle of formative interventions (Sannino, 2011) that place agency in the center.

Conflicts of motives play a key role in double stimulation as a principle of volitional action and agency (Sannino, 2015). In formative interventions, conflicts of motives are triggered and brought into the open when participants are confronted with evidence and examples of the problematic aspects of the object of their activities. (Sannino & Engeström, 2016.) The deep-seated restrictive patterns in home care can be overcome.

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**Table 7-1 Home care clients’ life orientations and home care workers’ work orientations**

<table>
<thead>
<tr>
<th>Shared transformative agency and orientation type of home care client (HCC) and home care worker (HCW)</th>
<th>Home care client’s (HCC) life orientations</th>
<th>Home care worker’s (HCW) work orientations</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCC independent and active (CIA) with HCW promoting the client’s independence and active (WIA)</td>
<td>KEEPING UP = independent and active (CIA)</td>
<td>INTERACTIVE EXPERTISE = promoting the client’s independence and active (WIA)</td>
</tr>
<tr>
<td>HCC dependent and active (CDA) with HCW making the client dependent and active (WDA)</td>
<td>TRYING &amp; WILLING TO GET BETTER = dependent and active (CDA)</td>
<td>LEARNING TO CHANGE THE OLD HOME CARE (HC) SCRIPT = making the client dependent and active (WDA)</td>
</tr>
<tr>
<td>HCC independent and passive (CIP) with HCW promoting the client’s independence and passive (WIP)</td>
<td>LOSING INDEPENDENCE = independent and passive (CIP)</td>
<td>TACIT EXPERTISE = promoting the client’s independence and passive (WIP)</td>
</tr>
<tr>
<td>HCC dependent and passive (CDP) with HCW making the client dependent and passive (WDP)</td>
<td>LOST &amp; DEPENDENT = dependent and passive (CDP)</td>
<td>DEFENSIVE ROUTINES AND THE OLD HOME CARE (HC) SCRIPT = making the client dependent and passive (WDP)</td>
</tr>
</tbody>
</table>
and transformed. Expansive learning in the implementation of the Mobility Agreement puts these contradictions into motion. Efforts to develop and implement agency-promoting practices such as the Mobility Agreement should include negotiations and debates between different orientations in home care encounters in order to overcome and transform deep-seated restrictive patterns. Tackling emerging new problems and changes requires a transition toward collaborative and transformative expertise (Engeström, 2018, p.157).

Edwards (2005) defines relational agency as “a capacity to align one’s thoughts and actions with those of others, in order to interpret problems of practice and to respond to those interpretations” (pp. 169–170). Relational agency is understood as improving professional engagement with the object of activity by giving support to and seeking support from others. (Sannino & Engeström, 2016). Relational expertise is the capacity to work with others on complex problems and involves joint interpretation of the problem and response. Relational expertise also involves knowing how to know who can help, it makes responsive collaboration possible as “it is a matter of adjusting what you do to other people’s strengths and needs”, when interpreting problems with others (Edwards, 2017, pp. 8-9.)

This study indicates that more research is needed to deepen the understanding of the dynamics of the interacting cycles of learning in multilearner settings. There is also serious demand for expertise, which may be located in fields of multiple interacting activity systems. New forms of work organization in the social and health sector increasingly require negotiated knotworking across boundaries. Expansive learning increasingly involves the horizontal widening of collective expertise by means of debating, negotiating and hybridizing different perspectives and conceptualizations. (Engeström, 2000, p. 960.)
7.4 From dyads to knots

Negotiated knotworking (Engeström, 2008b) with elderly people living at home means that the knot is based on the elderly person’s need. The knot means concrete people working together to reach a shared solution to a particular problem. It is more than working in teams. Each thread in the knot is independent; they negotiate in order to reach a shared solution.

The increasing complexity that operating teams face in health care can be seen to result from a historical shift in which the desire for stability is increasingly replaced by the recognition of a permanent state of fluidity, resulting in a complex context that carries uncertainty (Bleakley, 2013). This resembles Anthony Giddens’ (2002) notion of a “runaway world”, in which contexts fail to stabilize because of policy changes.

The challenges of independent living at home and in the community give rise to a demand for home care to provide meaningful social interactions, to respond to elderly adults’ initiations and independent actions and to solve problems. Social and health care professionals have to increasingly operate in collaboration by allowing and enabling professional efforts so that the work meets the needs of the elderly clients. (Eloranta et al., 2008a; Wallin, 2009.) Home care work in fixed teams is not enough; what is needed is multidisciplinary collaboration, with professionals working hand in hand, toward a suitable outcome for the client. Home care workers bring in their own expertise, which should not be undervalued, but more openly recognized and appreciated (Low, 2003).

New forms of team working in health care contexts are a complex set of practices and discourse. In the context of unpredictable social conditions, teams should be approached in terms of contradictory processes as well as stable membership, recognizing that the desire for stable networks – a will-to-stability – may be secondary to the need for a will-to-adaptability; in other words, a shift from stable “networking” to unstable knotworking describes the activities of an emergent work order. Teams are not necessarily problematic issues to be solved, but activities to be expanded. (Bleakley, 2013.)

In this study as I have described earlier, a new collaborative tool, the Mobility Agreement, was designed and implemented as a mediating tool to facilitate negotiation and co-configuration mainly between the client and the home care worker. Eventually, the Mobility Agreement will need to expand its scope and engage other agencies that contribute to the client’s life and overall home care services, including those close to the client.

The notion of a knot refers to the pulsating, distributed and partially improvised orchestration of a collaborative performance among otherwise loosely connected actors and activity systems. Knotworking is a form of organizing and performing work activity, connected to the emergence of co-configuration models of production. (Engeström et al., 1999.) Expertise needs to be built on flexible knotworking among diverse practitioners. Expertise needs to be fostered as the expansive learning of the models and patterns of activity that are in progress. The idea of knotworking is based on the dialectics of improvisation and long-term planning. (Engeström, 2018, p. 235.)

The critical encounter, i.e. home care appointment, is an event in which two or more relevant actors come together to deal with a problem that represents both a potentially shared object and a conflict of motives from the perspective of the home care client. In such a critical encounter, there is both complementarity and tension between the encounters. In many cases, the home care client is dependent on many other service providers at the same time as home care. We need to move from the dyad of the home care client and home care worker, toward knots that engage all the service providers collectively, to form an integrated set of services by knotworking.

Knotworking is tying, untying and retying together otherwise separate threads of activity to achieve collaborative work (Engeström et al., 1999). However, knotworking cannot be analyzed from the point of view of an assumed center of coordination and control, or as an additive sum of the separate perspectives of individuals or institutions contributing to it. Knotworking can only be accomplished by focusing on and expanding the shared object. It calls for the redistribution and reconceptualization of control, responsibility and trust. It is not automatically a beneficial phenomenon of empowerment. It is temporal and must be created.
as a context-oriented trajectory of successive and parallel task-oriented combinations of people and artifacts. In knotworking, the combinations of people and the contents of tasks change depending on the needs of the client. This highlights the importance of communicative actions and instruments for the success of knotworking toward a shared object. Knotworking, an emerging form of collaborative and transformative expertise, is essential for making decisions. (Engeström, 2018.) However, in order for knotworking to be effective, it must move beyond the chance encounter to what Engeström (2008b) refers to as “collaborative intentionality”; conscious effort as a basis for improvisation (Bleakley, 2013, 25).

When converting Bleakley’s (2013) study even closer to the home care context, we must bear in mind that teams still require stability, cohesion and common identity to build social capital. Home care practitioners learning “teamwork” will need to appreciate both “cool” networking for stability and “hot” knotworking for adaptability.
8 Evaluation of the research process

In this final chapter, I focus on the notions of truth and knowledge in my research from an epistemological perspective. I also discuss the nature of the object of my study and the reality that my research concerns (ontology).

I depict the paradigm of my interventionist research, as its methodological roots lie in CHAT. I discuss the validity and reliability of my research as well as the limits and challenges of this formative interventions study. I also intend to draw the attention and interest of researchers specializing in this field and to encourage them to form ideas from my study and to dip into the particular concepts of CHAT as a theoretical framework and methodology for formative interventions.

8.1 The paradigm of my research

It is important for me to understand, as Engeström and Miettinen (1999, p. 2) point out, the nondogmatic nature of the discussion and collaboration in activity theory when I talk about the paradigm of my study which lies between activity theory and other related traditions.

My study used formative interventions research as its methodological approach. The paradigm, i.e. the general framework guiding and defining my research work, is rooted in activity theory, initially developed by Leont’ev (1977). It has also affinities to Dewey’s (1957) pragmatism.

According to Miettinen (2006), in both of the theories, the concept of activity is based on understanding the nature of knowledge and reality. A methodological approach to studying human behavior in which social experimentation and intervention play a central role is also typical for both of them. Miettinen (2001, 2006) points out several similarities or complementarities between different aspects of activity theory and Deweyan pragmatism, including these an orientation toward practical transformation of the world.

In Dewey’s theory, the mediating tools play a central role, and activity is described in terms of an agent, a sign and a signified event. In CHAT, cultural artifacts, i.e. signs and tools, mediate the relationship between an organism and environment. (Miettinen, 2001.)

I also see my activity-theoretical paradigm as enriched by the double hermeneutic of Giddens (1984). As I have described earlier, I understand the knowledge and notions as being socially situated, constructed collaboratively through interaction with others. The reality is social reality. We must take into account the way in which the actors structure it and I, as the researcher, and part of my study, may affect this reality.

Giddens presented his theory of structuration through an analysis of agency and structure. A key component of his theory is the double hermeneutic process (Giddens, 1984, p. 20), in which people, upon reflection of day-to-day activities, are able to influence the structure of society either by reproducing current practices or by changing them. Giddens’ approach to social action is that of praxis, regular patterns of enactments conducted by active actors who interact with each other in situations in habitual, reflexive, reflective and conscious ways.

When I study home care paradigms that include the agency of human beings, I interpret Giddens (1984) on the basis of Jyrkämä’s (1996) developmental ideas which move Giddens’ approach to a practical level. My research in the field of home care is a study of social practices and social systems that are reproduced in social action and human interaction. It is goal-oriented and includes conscious transformation of social practices in co-operation with actors of home care.

Jyrkämä (1996) emphasizes the importance of the duality of power. On the one hand, power is control, on the other hand, it is the ability to produce change. According to Jyrkämä (1996), action space should be seen as a process; it is not something in which one is, but rather something that one creates and maintains. My study aims to make visible the social practices of the home care site – to display and to interpret the social architecture in order to raise the actors’ practical knowledge to the level of discursive knowledge and awareness – in Giddens’ words, to the level of reflexive monitoring. The ideal result might be the discharge of numerous cognitive deadlocks and making visible that which is “invisible” between the home care workers and their elderly clients, and might arise from the interpretation of home care rules and resources.
8.2 The notions of truth and knowledge associated with my research (epistemology)

In activity theory understanding the conditions of social change and transformative human agency as the epistemological basis underlie of the importance of intervention and experimentation as a research strategy (Miettinen, 2001, p. 402). Activity Theory’s notions of truth and knowledge (epistemology) proceed from the redefinition of the object of the activity in the social origins. Contradictions raise learning, leading to the redefinition of the object of the activity within and between activity systems within which people collaborate.

Distinction between collective long-term activity, individual or group short-term action, and automatic, routinized operation including movement between these three, is a core principle of activity theory. However “human activity does not exist except in the form of action or a chain of actions” (Leontjev 1978, p.64). Actors construct, test, implement and revise new kind of knowledge, developmental knowledge through the zone of proximal development of the activity. Activity theory has its potential in analyzing processes of developmental contradictions through the cycle of expansive learning within and between activity systems released by disturbances and concrete innovative actions. (Engeström 2000c.) Activity theory bridges the gap between the individual subject and the social reality, studies both through the mediating activity.

Leontjev (1978, p.23) described activity theoretical epistemological implications of work: “Work is the instrument that places man not only ahead of material objects but also ahead of their interaction, which he himself controls and reproduces.” The notions of truth and knowledge (epistemology) associated with my research are also related to the philosophical tradition of pragmatism. As taught by Gutek (2014), the philosophy of pragmatism “emphasizes the practical application of ideas by acting on them to actually test them in human experiences”. In a similar way, in my study I analyze the ideas and objects in the world for their practical value. “Knowledge” is dependent on the historical, linguistic and cultural context of producing information, and “truth” is the demonstration of the contextuality and “positionality” of knowledge and assumptions, which enables alternative and parallel interpretations.

In my study, epistemic reasoning, i.e. reasoning about knowledge, is based on the relevant fact that elderly people should be part of their home care planning and play an active role during home care encounters in order to perform as the agents of their life at home. According to Jyrkämä (2007), elderly individuals construct their own life courses and futures by utilizing the resources they have, acting and making choices in situated time and space, and within the scope of the possibilities, conditions and constraints that the actual sociocultural circumstances offer them. In other words the elderly clients are genuine co-producers of knowledge in home care.

In home care of the elderly, the client’s active contribution to their own care seems self-evident (Article I). Although some home care clients are very adept at identifying and fulfilling their needs, many others want and need help. Deegan (1992) pointed out that many people are caught in a cycle of learned helplessness and internalized stigma that allows them to believe that they are not worthy or capable of active, independent living. This often fits all too well with the internalized script (historical context of knowledge affects the knowledge) of the home care worker, oriented toward quick and seemingly efficient “doing on behalf of” rather than more interactive and demanding “doing with” (Jones, 2007) (Article IV). In other words, standard home care services seldom include systematic measures aimed at supporting the mobility of clients, and traditional methods of exercise and physical therapy are not easy to adapt to the circumstances of home care. There is a growing need for new concepts of mobility that can meet the home care needs of elderly clients. (Article II.)

All in all, this study used Engeström’s (1987) activity-based perspective on cognition, allied with social epistemologists’ discussions on knowledge as a fundamentally social construct and epistemology as a social phenomenon. Physical and social spaces impose necessities, constraints and possibilities that further influence this perspective in which local cultures provide meanings, self-evident facts, anticipations, routines and traditions (Article I).
8.3 The nature of the object of study and the reality in my research (ontology)

The nature of the object of my study and the reality (ontology) in my study is socially built, maintained and re-produced by discursive practices in home care. Discourses during home care encounters produce material reality through the actors’ interpretations and bodily actions.

In some circumstances, the body itself becomes a cognitive artifact, upon which meaningful environmentally coupled gestures can be performed. . . . In such settings, motion in space acquires conceptual meaning and reasoning can be performed by moving the body. . . . Courses of action then become trains of thought. (Hutchins, 2010, p. 444.)

In the home care encounters analyzed in my articles, both the home care worker and the client face the challenge of conducting new actions. The worker presents to the client the idea of regularly doing certain physical exercises, embedded in normal household chores, with the support of the nurse and a visual booklet.

The embedding and anchoring of these exercises into daily routines takes time and needs to be persistently pursued. Eventually, a new insight and new commitment must emerge and take conscious shape. This is the essence of collective concept formation. Such stepwise articulation needs to be built on and around a core idea, a germ cell. In home care encounters, getting up from a chair (or sit-to-stand) emerges as a germ cell because in practice one has to get up to reach an upright position in order to move. This is fundamental for any other kind of physical movement. In other words, it can be seen as the smallest and simplest initial unit of a complex totality; as something ubiquitous, so commonplace that it is often taken for granted. It thus opens up a perspective for multiple applications, extensions and future developments.

The object of my research, the interdependent activities of the home care client and the home care worker, practically instantiated in repeated home care visits, is not something that can be arbitrarily constructed by the researcher. The object has self-movement, dynamics of its own, that keeps surprising the researcher. The researcher can intervene in but not control this object.

8.4 Validity and reliability of this interventionist study

I collected the data for this study over a six-year period (2006–2012) “in the wild”, in circumstances in which human cognition and action are never fully predictable or programmable, by close observations, video-recording and interviewing home care workers and their elderly clients.

According to Becker (2001), the validity of qualitative research depends on data accuracy. He stresses data resulting from the close observation of what is being done and talked about, and being ready to take into account matters in the original formulation of the issues, without preventing any issues from arising. The analysis of the data must be full and broad and include a wide range of issues, especially in the sense of knowing about a wide range of matters that affect the question under study, rather than just a few variables. (Becker, 2001.)

According to Wainwright (1997), research is about transforming organizations and processes, not just about producing knowledge. Knowledge is dynamic; it changes because of reflection and activity, and because of practice: What we know informs praxis. This is only possible because of direct engagement with processes and structures, which in turn generate knowledge. (Harvey, 1990, p. 23.)

Wardekker (2000), interpreted by Mäkitalo (2001), makes a point about research quality in the CHAT approach. He sees research as valid and focused on practical activities, the contextual issues of these activities and their historical development, as well as the change dynamics. The real dialogue for co-constructing valid data between the researchers and the researched is central to research quality in activity theoretical studies. The first criterion of objectivity and validity is precise documentation and the use of dialogue in the co-construction of practice-relevant knowledge. The quality of research depends on sensitivity to change and learning, including concept formation that facilitates and monitors change during the research process. (Wardekker, 2000.)

Engeström (1995, pp. 109–110) talks about the object of activity theoretical research as a moving and developing entity. Thus, a research strategy has to be developed from the perspective of understanding change,
not only describing the object but also describing what it will become. From this follows the second important
criterion of valid knowledge in developmental research: historicity, expectation of future development and
experiments with which hypotheses concerning future development are tested in practice (Mäkitalo, 2001).

Validity requires the consistency of an argument from initial observations of home care reality to the
conclusion of analysis.

This is particularly demanding in a longitudinal formative interventionist study. The emergence of shared
transformative agency in mobility-related encounters between home care workers and their elderly clients must
be traced over time from the perspective of both participants.

Generativity is a final criterion of validity in activity-theoretical studies. Generativity requires the
articulation of an idea that has integrative potential to establish a perspective for a solution to the problem or
conflict of motives in the activity. The evidence of the generativity of the key ideas of my study: Mobility
Agreement and the germ cell (getting up from a chair or sit-to-stand) gained momentum in practice when one
had to get up to reach an upright position in order to move. It thus opened up a perspective for shared goals,
plans and practices as part of the core of the daily tasks concerning the clients’ functional capacity and physical
mobility. Identifying the articulation of an idea to develop and implement an agency-promoting practice such
as the Mobility Agreement included the actors shared understanding of and commitment to getting up from a
chair as a cornerstone of mobility.

My study included much critical discussion and debate on with my supervisors and co-authors. These
critical discussions and scientific decisions play an important role in the reliability of the codings and analyses
I have conducted in my articles aiming to yield consistent results.

All the articles in this study are based on data collected in the City of Helsinki Home Care. I video-recorded
the data during the home care visits but remained outside the active interaction. The key data consist of video-
recorded home care visits. In these visits, the home care worker and the elderly client faced the challenge of
integrating regular mobility exercises into the daily routines of the client.

For each article (Articles I–IV), I conducted the overall data analysis, i.e., the first round of coding, and my
co-authors coded a smaller sample of the data. Comparison of our codings led to the identification of
problematic or ambiguous items in the data. We decided on the final codings by negotiating and recoding in
order to ensure reliability and consistency. The collection and analysis of the data were facilitated by the fact
that I am an experienced home care professional. Analyzing the data together with my co-authors in joint data
sessions (see Jordan & Henderson, 1995) enabled me to counteract possible biases stemming from my
professional vision (Goodwin, 1994) as a home care manager.

Next, I describe each sub-study (Articles I–IV) of my dissertation from the perspective of the evaluation of
the research process including the limits and challenges faced in the research work.

In Article I, “Towards co-configuration in home care of the elderly: Cultivating agency by designing and
implementing the mobility agreement”, as first author I was responsible for the data collection and the overall
analysis. I shared responsibility for the analysis with the second author. The data consist of two home care
visits involving the same actors, before and during the implementation of the Mobility Agreement. I video-
recorded both visits but otherwise remained outside the active interaction. The videotapes were transcribed.
We, the authors of this sub-study, made the translation of the transcripts from Finnish to English. This sub-
analyzes the introduction of physical mobility exercises into the daily practices of home care as a step toward
building the capacity for co-configuration among the clients and their caregivers.

I produced Article II, “Embodied germ cell at work: Building an expansive concept of physical mobility in
home care”, with two co-authors and we contributed equally to it as its first authors. The study design is focused
on expansive concept formation at work. The data consist of 13 video-recorded home care visits conducted at
the time the Mobility Agreement was introduced. On visit was selected for intensive analysis, and the home
care records were used as supplementary data for this case. We identified the home care client’s and worker’s
firm understanding of and commitment to getting up from a chair as a cornerstone of mobility. However, how
exactly, in the minute detail of the situated actions, the parties had reached this understanding and commitment
was partly beyond the reach of our analysis in Article II.
During my third sub-study, Article III, I worked together with two co-authors, and we contributed equally to its production as first authors. This article, “Double stimulation in everyday work: Critical encounters between home care workers and their elderly clients”, consists of a five-step analysis of double stimulation in everyday home care work. The data came from two different data collections including a total of 26 video-recorded home care visits, which we analyzed in a detailed way. We reviewed every transcript and identified the segments in the transcript that represented each component of the model of a critical encounter. The authors systematically discussed and resolved the problems in the identification of the contents for each component. We noticed that each component of our model would require further clarification and operationalization. We also found the fact that the model depicts two interacting actors was a limitation, as many critical encounters obviously involve more than two actors. However, the model offered a useful way to compare different overall profiles of critical encounters and to identify variations in the employment of artifacts in attempts to trigger or switch off processes of double stimulation.

Two researchers (Kajamaa & Schulz, 2018) have used two cases from the same data that I used in Article III. Their findings are consistent with the study at hand.

In my final sub-study, Article IV, “Defensive and Expansive Cycles of Learning: A Study of Home Care Encounters”, as the first author I was responsible for the data collection and the overall analysis of the data. The second author shared the responsibility for the analysis with me. The third author contributed primarily to the analysis of the discourse in the home care encounters. The learning cycles of 30 video-recorded encounters in home care were analyzed, and of these, four were analyzed in detail. We used the theoretical model of an expansive learning cycle in the analysis of the encounters. We learned how using only short encounters as data has significant limitations, and the findings need to be interpreted against the background of longer cycles, i.e., against the background of what has happened before and what might happen later. In addition, efforts to develop and implement an agency-promoting practice such as the Mobility Agreement include negotiations and debates between different orientations of home care workers and clients in care encounters. One might question whether the dualism of expansive versus defensive is sufficient in further analyses.

8.5 Reflections on the research process in the home care of the City of Helsinki

In work organizations and communities at large, learning processes are predominantly characterized by the necessary participation of two or more learners with different but complementary positions and perspectives. Thus, the methodological solutions developed in this dissertation may be taken as an invitation for further studies and novel solutions.

The ideas of this study are used and tested as guidelines in the formation and implementation of a new concept for the home care work of the City of Helsinki. Home care in the City of Helsinki supports elderly people who live at home despite various kinds of medical problems. Home care workers visit their clients to dispense medications and conduct various routine chores such as showering and preparing meals, etc. The home care managers and workers continuously struggle to redefine their work and services to meet demanding problems among elderly clients such as increasing loneliness and social exclusion, loss of physical mobility and dementia.

How can the managers, workers and clients learn to work in such a way that these new needs are met and society can afford to provide the service? Policy-making and legislation are in transition toward strong actions to support elderly people’s functional capacity and their social and health care services (Act on Supporting the Functional Capacity of Ageing Population, and on Social and Health Care Services for elderly people, 980/2012). Actions are needed because services for elderly people are scattered. The structure of services has not developed rapidly enough or according to national aims, implementation of best practices has been slow, and regional differences are substantial. (Noro, 2016.)

The challenge is complicated by the fact that the population of Finland is aging very rapidly, and it is increasingly difficult to recruit and retain competent home care workers. The number of home care clients has been increasing in accordance with national objectives, but the human resources of home care have not increased at the same pace. Elderly people’s services are in transition. National Institute for Health and Welfare
(2018) indicates that the well-being of the staff of services for elderly people has declined. The staff report that, due to time pressure, they are unable to carry out work of the quality that they would like to. The development work conducted in the National Key Project (2016–2019) for home care and informal care led by the Ministry of Social Affairs and Health (MSAH) seeks more action and multidisciplinary rehabilitation to ensure healthy and active aging, but also better allocation of services such as home care.

Future prospects for the City of Helsinki include the stabilization of an appropriate concept of mobility support in home care. This must be sustainability-oriented; instead of individually focused it must be collaborative, and everyone must have the opportunity to participate in a suitably supported way (MSAH, 2018). Instead of being separate from other activities, mobility support must be embedded and integrated into the daily life activities of the elderly. Maintaining and improving the physical mobility of clients over a long haul must become a core of the daily tasks of home care and replace the short-term efficiency orientation of home care visits.

The City of Helsinki has launched a physical activity program intended to make Helsinki residents move more and sit less. Based on surveys, people spend the majority of their waking hours physically immobile, sitting or lying down. This is a great health risk for all people, regardless of age. As one of the City Council’s top-priority projects during the Council term 2017–2021, the program presents a challenge for City of Helsinki services. The program pays special attention to the elderly and the City is looking for ways to increase physical exercise among the elderly. In home care the Mobility Agreement tool is in full scale use. (Vapaavuori, 2018, 2019.)

The long-term effectiveness of the service requires new kinds of dialogue and cooperation between the home care client and the home care worker at one level, and between the immediate parties and the multiple support agencies involved in home care at another. The concept formation of physical mobility in home care requires that we look beyond the acquisition of fixed, authorized concepts in contexts in which institutionalized power relations are taken for granted. Development of an expanded shared object that allows the home care client and the home care worker to construct shared goals, plans and practices concerning the clients’ functional capacity and physical mobility, is needed. To go beyond reconstructions in the analysis of ascending from the abstract to the concrete, the process may be deliberately condensed and intensified by means of formative interventions (Engeström, 2011; Sannino, 2011).

Home care encounters present a specific site and format for learning. For the client, the fundamental contradiction is between autonomy and safety. For the worker it is between saving labor by adhering to the standard procedure and responding to the client’s life-and-death needs. At the core of the learning challenge in home care is a struggle between short-term cost efficiency and longer-term impact. This study shows that deep-seated restrictive patterns in home care can be overcome and transformed. In other words, it is not an overstatement to argue that expansive learning in the implementation of new tool or practice (the Mobility Agreement) puts these contradictions into motion.

The findings of my study invoke the question of deliberate articulation of different orientations in home care. It might be beneficial to guide home care workers and clients to make explicit their orientations to the systematic facilitation of physical mobility. As Article IV points out, in the future this would require new instruments, for example, sets of questions that trigger joint reflection on the orientations of the parties toward mobility. The development and testing of such instruments is a learning challenge for the organization and management of home care services in Helsinki. This is another example of the intertwining of learning processes at the level of individual clients and their home care workers on the one hand, and at the level of the entire organization on the other.

Conceivably this will eventually lead to continuing cycles of developing the collaborative Mobility Agreement tool as a mediating device for facilitating negotiation and co-configuration between the client, the home care worker, and eventually also the other agencies that contribute to the client’s overall home care. This corresponds to a key characteristic of co-configuration: “... co-configuration work never results in a ‘finished’ product.” (Victor & Boynton, 1998, p. 195).
New forms of the social and health sector’s work organizations, including the private sector and the client’s significant others, increasingly require negotiated knotworking across boundaries in the matter of elderly people living at home. This study indicates that more research is needed to deepen our understanding of the dynamics of interacting cycles of learning in multilearner settings.

In social and health care, this means, above all, making the client’s/patient’s care experiences visible. The clients usually feel doubt, confusion and resistance, and this can diminish the social and health professional’s best efforts. The focus should be on shared transformative agency in order to meet the joint challenge of frail functional capacity and physical mobility. This is a demanding challenge, as it may threaten the dominant competence and conception of professionalism.
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Jaana Nummijoki


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Appendices

Appendix 1. Mobility Agreement

Appendix 2. Exercise Booklet

Appendix 3. Diagnostic lens of orientations of home care client and home care worker

Appendix 4. Statement of Authorship
## Appendix 1 Mobility agreement

### MOBILITY AGREEMENT

**Home care**

<table>
<thead>
<tr>
<th>Customer</th>
<th>Date</th>
<th>Follow-up date</th>
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### SELF-ASSESSMENT AND OBSERVATION OF PHYSICAL ABILITY TO FUNCTION

<table>
<thead>
<tr>
<th>CUSTOMER'S ASSESSMENT</th>
<th>CUSTOMER'S PERFORMANCE</th>
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<tbody>
<tr>
<td>yes / no</td>
<td>Can you sit up from a lying down position? yes / no</td>
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<tr>
<td>yes / no</td>
<td>Can you move from your bed to the kitchen chair? yes / no</td>
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<tr>
<td>yes / no</td>
<td>Can you stand up from the chair? yes / no</td>
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<tr>
<td>yes / no</td>
<td>Can you take a meal from the refrigerator and heat it up? yes / no</td>
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### PERFORMANCE TESTS

#### Standing up from a sitting position five (5) times (stop the clock when you stand up for the fifth time)

<table>
<thead>
<tr>
<th>Date</th>
<th>Time of completion</th>
<th>Notes (with or without hand support, what kind of chair?)</th>
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<th>Follow-up date</th>
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#### Picking up an object from the floor (such as a newspaper)

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<th>Date</th>
<th>Score</th>
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**Scoring**

- 4 p: Can pick up the object easily and safely
- 3 p: Can pick up the object, but needs support
- 2 p: Cannot pick up the object, but can reach out to within 2-5 cm of the object while maintaining balance
- 1 p: Cannot pick up the object and needs support for the attempt
- 0 p: Cannot attempt / needs support not to fall down

### DAILY TASKS

- What daily tasks can you do on your own?
- What daily tasks do you have difficulties with?
- What kind of hobbies/activities have you enjoyed doing?
- What kind of exercise would you like to perform supported by a nurse?

### CONTENT OF THE MOBILITY AGREEMENT (transfer to care work plan)

- Daily functions (such as dressing, showering, movement and standing exercises)
- Everyday tasks
- Home exercise and other exercise
- Outdoor activities (such as taking out the garbage, service centre activities)

### The following persons took part in preparing the mobility agreement

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<tr>
<th>Signature and clarification of signature</th>
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Appendix 2 The Exercise Booklet

THE EXERCISE BOOKLET AS A SECOND STIMULUS AND MATERIAL ANCHOR
### Appendix 3 Table. The diagnostic lens of orientations of the home care client and home care worker

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<th>Home care Worker</th>
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<tr>
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<td>“Lost &amp; dependent”, see Fig. 10</td>
<td>“Routine expertise”, see Fig. 10</td>
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<td>“Loving independence”, see Fig 9</td>
<td>“Tacit expertise”, see Fig. 10</td>
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<td>Making the Client dependent &amp; passive WIP</td>
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<td>“Trying &amp; willing to get better”, see Fig. 9</td>
<td>“Adaptive expertise”</td>
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<td>“Keeping up”, see Fig. 9</td>
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<td>Promoting the client’s independence &amp; active WIA</td>
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Statement of authorship

We co-authors of the article “Embodied Germ Cell at Work: Building an Expansive Concept of Physical Mobility in Home Care,” published in Mind, Culture, and Activity: An International Journal in 2012 (19.3, 287-309) hereby attest that the authors, Yrjö Engeström, Jaana Nummijoki, and Annalisa Samberg contributed equally to the article as its first authors.

Helsinki, August 24, 2018

Yrjö Engeström
Jaana Nummijoki
Annalisa Samberg