5 ROBOT ANIMALS AND THE EMOTIONAL LABOR OF CAREGIVERS

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Robot animals have become a topical issue as researchers and policymakers consider how to meet the challenges associated with the aging population and limited resources in care for older people.[1] In relation to groups that face difficulties building and maintaining social relationships, such as persons with dementia, some researchers argue that robot animals can facilitate communication and promote well-being.[2] Robot animals may, for instance, help dementia care patients to remember their life story and previously owned pets.[3] However, such optimistic reports do not account for everyone's experience of robot animals. The interaction with and effects of robot animals can vary based on personal experiences of pets, what kind of robot animal it is, and which features the robot is designed to have.[4] It is, therefore, important that the use of robot animals is tailored to different individuals' needs. Some researchers point out that the functions and benefits of the robot animal rely on caregivers' productive use of it in interaction with patients.[5] Caregivers' roles are still quite invisible in research on the use of robots in care settings.[6] This chapter, therefore, contributes an understanding of the caregiver's role in the use of robot animals, focusing on how caregivers express and manage emotions when they use robot animals with persons with dementia.

The concept of care work is a complex issue, involving attention to other people's physical as well as social and psychological needs. The physical aspect of caring is most easily documented since it rests on practical work tasks.[7] But caring also signifies feelings of concern, interest, and vigilance with a view to protection.[8] Being there for others in need of help can be an emotionally demanding task and may "require formal and systematic training to manage feelings, grounded in a theoretical base such as psychology, sociology and the acquisition of complex interpersonal skills."[9] Such ideals, related to providing care, do not necessarily resonate with the increased requirements for technological competences.[10] In fact, researchers have

identified some incidences of "tech resistance" within the nursing profession.[11] The attitude among caregivers toward technology is often found to be negative due to perceived risks of being replaced by robots or of alienating patients—replacing the human touch with technology.[12] On the other hand, studies have also shown that working with robots can have a positive effect on the caregiver's mood and work atmosphere: caregivers smile, laugh, and become more talkative.[13] The relation between care and technological use is, therefore, a complex matter, involving caregivers' attention to the expression and management of their emotions.

Based on qualitative data (interviews and observations) from an ethnographic study in six dementia care homes in Sweden, we explore caregivers' emotional expressions as they interact with persons with dementia when they use robot animals.[14] The study involves semi-structured interviews with forty-four caregivers, and observations during recurrent visits at the facilities.[15] In addition, we draw on video-recorded interactions among caregivers, residents, and robot animals at two of the care homes.[16] The analysis follows a theory-led thematic procedure, guided by the focus on emotions and socio-material interaction involving humans and objects.[17] We will account for the findings according to the distinct ways in which the caregivers manage their emotions when using robot animals in interaction with the residents.[18] The examples we present represent recurrent themes and variations in the whole data set; that is, we present themes that may not be present in all caregivers' understandings or in all interactions, but which were common ways of approaching robot animals in all the care homes we visited.

Although different types of robot animals are available, the robots in this study are of the same brand and designed as cats and dogs, mimicking real cats and dogs. The robots have pressure sensors under the fur, causing them to react to touch. The robot cat can move its head and one front paw. It can lay down as well as meow and purr with sound and vibrations. The robot dog has a small internal motor imitating a heart. It can move its head and bark, triggered both by touch and sound, for example, when the user calls for it. In this chapter, we discuss robot cats first and foremost, as these are more common, and were more common in our data, than the robot dog model.

EMOTIONAL LABOR IN CARE WORK

Drawing on the sociology of emotion, we define emotions as biological and social phenomena created by a society's values and ideas, emerging in

social interactions and learned through socialization processes.[19] Emotion research is well established in working life research, and a key notion is emotional labor: "the induction or suppression of feeling in order to sustain the outward appearance that produces the proper state of mind in others—that of being cared for in a safe and convivial place."[20] Emotional labor requires coordination of mind and feeling and at times draws on the self that we all view as being integral to our individuality. Hochschild claims that emotional labor is guided by what she calls "feeling rules" originating in social conventions, reactions of others, or from within individuals.

Hochschild distinguishes between "emotion work," which refers to our management of emotions in private life, for example, trying to express happiness at a party, and "emotional labor," which refers to the same type of work in professional life, for example, trying to be friendly to customers or empathic toward patients. Hence, the difference between emotion work and emotional labor is found in the social conventions of the private and public domains. Another difference is that while emotion work is something most people engage in to maintain their interpersonal relationships, emotional labor implies an instrumentalized approach to emotions. Worker's emotions are turned into a resource used by the employer, and there is, thus, a risk that workers are "alienated from an aspect of self"[21] as their emotions are no longer fully their own. However, using one's emotion to care for patients is integral to good care work and not immediately connected to economic gain. Therefore, emotional labor in care work is often ambiguous.[22] To not be allowed to manage emotions as a care worker could itself be emotionally alienating.

Based on this approach, this chapter considers the way that the meaning of objects, such as robot animals, relies on practical purposes related to each interaction as well as the broader context of caregivers' experiences and normative frameworks within institutions. We are interested in the emotional labor of caregivers, that is, the management of emotional expressions that is conducted in the professional role of being a skilled caregiver. So far, no attempt has been made to examine caregivers' emotional endeavors in relation to the use of robots, despite findings of caregivers' resistance toward technology with the caring occupations.[23] In the context of dementia care, the purpose and meaning of robot animals are interpreted within the framework of core values within the caring profession, such as altruism, autonomy, human dignity, integrity, honesty, and social justice.[24] Our approach also involves an investigation of moments when caregivers do not attune their use of the robots to the institutional ideals that permeate the caring culture and professional standards. In this way, we capture

emotion expression and management related to dilemmas caregivers may face when using robots.[25]

Socio-material perspectives have acknowledged that technical artifacts are not only engineering constructions but also social constructions. Thus, they need to be examined in the context of the relations that makes them meaningful for the users.[26] In line with this view, research has pointed out that the benefits and risks connected to robots depend heavily on caregivers' approaches in interaction with persons with dementia.[27] Through dealings with the material world, people attach symbolical meaning to objects according to the prevailing system of meaning, involving values, norms, and ideals that we learn through an intersubjective process of communication.[28] It is the system of meaning, or culture, that specifies how we make sense of the material world—the ways of putting matter into use, of talking about it, of naming it. For instance, through interactions with other people and popular culture we acquire the meaning and collective ideas of what a robot is and how it can be used in different situations.[29] A robot cat or dog is not a care robot unless it is placed in the context of care work—otherwise, it is merely a jumble of fake fur, metal, and electrical components.[30] It is the acquired meaning, or role, of the robots that constitutes the basis for the choices of action that we direct toward the robot.[31] In other words, we tend to act upon a robot according to its role in interaction with people. Consequently, a robot can become a participant in interaction, if approached as such. Describing robots as interactional participants is a methodological choice and not a philosophical point. Through their material presence and their sounds and movements, activated by their algorithms and input from users, robot animals impact people's actions and can thus be studied as active agents in care settings. Thus, we are here informed by actor-network theory's focus on how actors are made to act by other actors, which implies that what an actor is within a network is an empirical question.[32]

In this sense, it is important to study how the caregivers construct the meaning, including the practical purpose, of the robot animal by expressing and managing their emotions in different ways. By acting upon the robot in emotionally distinct ways, the caregivers can be understood as imbuing the robotic object with different sentiments and attitudes. For instance, we will show how the caregivers emotionally engage with robot cats and dogs by reinforcing and reducing their emotional expressions and, thereby, constructing two opposite roles of the robot: the soothing robot animal and the invigorating robot animal. Important here is also the design of the robot: the robot can be seen as a materialization of an understanding

of cats' and dogs' social qualities. But before that, we will first turn to how the caregivers talk about the robot animals and technology at large between themselves.

TALKING ABOUT TECHNOLOGY AMONG COLLEAGUES

During the visits to the dementia care homes we encountered caregivers who expressed a variety of emotions when talking about the use of robots and other types of technological devices. While some caregivers were overwhelmingly positive, others expressed explicitly negative attitudes. On the positive side of the spectrum, caregivers expressed joy toward using new technology in dementia care and talked about it as meaningful—as illustrated by three caregivers during a coffee break at one of the care homes (Home 2):[33]

> **Carrie:** The use of technology is changing in here. There's a lady (resident) who has Facebook and Swish and everything. The new generations who move in are used to using technology daily. Maybe we should get a shower robot that can wash them on the back! (jokingly)
>
> **Betty:** Robot vacuum cleaners would be good to have. (laugh)
>
> **Anna:** I think iPads, and games and stuff. There is an iPad here in the ward. There should be more games, color games and things that you can play with a little easier.

The general tone of how Carrie talks about technology is positive. She describes it as a new element in their work, introduced by "a new generation" of residents who are used to daily use of technology. By introducing technology use as based on residents' habits, there is no tension between care and technology use. Instead, it is a welcome contribution that the caregivers seem to appreciate—for practical purposes but also for their symbolical value of being objects that represent a modern and digital lifestyle. In the previous excerpt, the example of the "lady" who uses "Facebook, Swish and everything" moves to a joke about getting a shower robot, something that would potentially facilitate the caregivers' work. This engenders a joke in response from Betty about other robot elements that the staff could benefit from. In this sense, technology becomes a luxury item around which the caregivers can come together and joke about, while picturing future improvements. Anna then moves back to a more serious focus on technological equipment that the residents use and what kind of equipment they could benefit from, showing a professional orientation to the benefits of the residents.

Investment in technology says something about the status and value of the occupation and the work that they do. As one caregiver says about the use of the robot cat (Diana, Home 1):

> You're always expected to be so creative; you must be alert and find solutions, but here you get a little help along the way. And I think that is very valuable, and to feel that it might be a bit of an investment for us in some way as well.

Here, the caregiver points to the usefulness of technological devices as well as the feeling of meaningfulness such "investments" can have for care workers. Caring for older persons is traditionally a low-status occupation, and the work is usually performed without advanced technology. The introduction of technology such as robots in dementia care is, in this sense, a novel development, which can affect the sense of value and identity of the care worker.

There are exceptions to such a positive stance toward new technology. Most of the technology skepticism we encountered was brought up in everyday interactions. For example, during teatime in one care home (4) that had both robot cats and dogs, David (Redmalm) chatted with Eve, a long-term employee, who declared that she was not interested in technology and that technology was overrated. When David asked Eve if she would agree to participate in an in-depth interview about technology use, she declined, saying that she had nothing to say. Eve explained that she actively avoided learning new technologies introduced in her ward. However, only moments later, she showed David how she used an app on her work cellphone connected to surveillance cameras installed in residents' rooms, which also send notifications when the cameras detect unusual movements in the rooms. She said that the app is of great help, facilitated her work, and increased the integrity of the patients, as the staff do not need to go and check on the residents repeatedly. Similarly, Eve talked enthusiastically about a resident's deep appreciation of a robot dog—another piece of technological equipment that she did not relate to her technology skepticism. In this way, technology skepticism expressed in the nursing homes was often ambivalent and selective, depending on the technology, and is often challenged in different ways.

During a visit at one home (3) Marcus (Persson) noted that Fiona, a caregiver, was listening to what the others were talking about, but she rarely participated in the conversations. One day Marcus was sitting at a table in the kitchen together with two other caregivers, talking about the use of technology in care. As usual, Fiona lingered, doing some kitchen work. Then, suddenly, she turned to the rest of the group, her facial expression

showing irritation, even anger. She broke the silence and declared her opinion in a loud voice:

> I must say one thing! May it never be so few of us (caregivers) that we must have robots that feed us. It's downright nasty. May I never be so sick that there are no caregivers who can help me. It's . . . it's unworthy!

Unlike the other caregivers, who treat robots as an additional gain that might possibly relieve them from the burden of some tasks, Fiona talked about robots as something that replaced key aspects of care. The other caregivers quickly began to argue with her—presenting arguments for the benefits of technological use in care work. For instance, Gloria said, "There are many in the home service where the night staff has a night camera instead of waking them up at night." and Helen is quick to back up that argument: "We had a person who had a night camera, and she was very happy with it because she did not want to be woken up." The arguments were, however, rebutted by Fiona as she continued to invoke the importance of human touch and dignity:

> It [technology] must never take over the human work. That would be awful. Yuck! We are social beings. Human contact is enriching. There must be human contact with the elderly. . . . I think it would be awful otherwise—it's a question of dignity. So much of it is subconscious. They (the residents) might not be able to say what my name is, but they know me. You can feel it. You notice in their face that they know me.

Again, Fiona contrasted technology in general with core care values. Her emotional expressions were strong, revealing some disgust ("yuck"), which treats the hypothetical situation she describes as unacceptable. After she said this, one of the residents walked into the room and sat down at the table. All the caregivers immediately stopped the discussion and focused on the resident instead.

The situation exemplifies the ongoing discussion among caregivers about the use and value of technology in relation to care values. As discussed earlier, caring work is based on values and principles of altruism, empathy, and human dignity.[34] In our analysis, we saw that whether caregivers treat technological changes as a threat to such values or not relates to their understanding of technology: as a replacement of meaningless tasks and human presence, or a fun or helpful addition. It is also important whether implementation of technology relates to wishes from residents (or caregivers), as we saw earlier in this section.

Another point to note is how the caregivers stopped arguing as soon as a resident appeared. Although the caregivers disagreed with each other about

the benefits and risks of using robots in care, they acted according to a common understanding of not showing indignation or anger in front of residents. In other words, they followed an unspoken and taken-for-granted rule. Hochschild would call this an emotional regime—a set of rules regarding emotions that is accepted and prohibited to express in care work.[35] We can understand this as the caregivers leaving backstage and entering frontstage as soon as the resident appears.[36] Quickly managing their emotions, so they do not cause the resident any concern or anxiety, the caregivers focus on the needs and wishes of the person with dementia. In the following sections, we examine the caregivers' frontstage management of emotions in interactions involving robot animals.

THE SOOTHING ROBOT

Dementia care involves people with challenging behaviors related to the illness, and thus, care work can involve both threats and violence from residents. "We are spat at, torn, kicked, beaten, and have things thrown at us," as one caregiver says (Ida, Home 2). On this note, there is a need for non-pharmacological methods that can serve as alternatives to medications in dementia care. The use of animal-assisted interventions[37] and plush toys[38] have been discussed as alternatives. However, animals demand attention and care and can cause allergic reactions, and toys do not offer responsiveness. Therefore, robot animals are increasingly explored as potential tools for distraction from challenging behaviors, for example, restlessness, sadness, and distress.[39] During our visits, we observed interactions involving pets and plush toys and noted distinctive ways in which robots were used. Much of this distinctiveness had to do with the way robots are responsive but in a way that can be anticipated and adjusted. In contrast to pets, robot animals can, for example, have their barking turned off, and in contrast to plush toys, caregivers can build an atmosphere of wonder and surprise around robot animals.[40]

Much of the caregivers' daily work and routines built on the idea of creating a calm environment. Quite often during the visits, we observed how the caregivers sat down with residents who were upset—holding their hands or placing an arm around them. In interactions with the robot animal, we see that the robot is used to calm residents, but here, increased distance is often involved. For instance, in figure 5.1, sketched from a screenshot from our video recordings, we can see the caregiver toning down her emotions and decreasing her physical engagement with the robot, as well as with the resident (resting her arm on the chair instead of on the resident's shoulder),

FIGURE 5.1
Drawing of a calming situation involving the robot cat.

which means that the caregiver does not pat the robot cat and avoids interacting with the robot. Instead, the caregiver attempts to get the resident to interact with and focus on the robot cat (see figure 5.1).

When assuming a calming role, the caregiver typically sits down diagonally opposite the seated resident and can, therefore, focus both on the robot and, more importantly, on the face of the resident.[41] This seating arrangement can be performed in different ways but is always marked by a certain physical distance between the caregiver and resident. It also involves low-key emotional expressions by the caregiver. Emotional labor can in this way involve bodily position: by placing herself in relation to the robot cat and the resident and responding to their (re)actions in a calm manner, the caregiver constructs a situation in which the robot is acted upon in the role of a soothing cat. Emotional labor can, of course, also involve verbal cues. Diana (Home 2) describes using words, movement, and touch when trying to get an agitated resident to focus on the robot cat:

> With some people you may really need to say, "come and sit here now" and then you put it (the robot) in their lap, then they are like "ooh." It's a lot about breaking, to divert is a lot of what it's about. . . . And we know that touch is very important, regardless of whether it is from a human or from an animal.

In this sense, the caregivers talk about robot cats and dogs as a valuable help for distracting and calming purposes, especially during afternoons and evenings which is the time when the anxiety and worries start to kick in for most of them. As Julia (Home 1) says:

> In the afternoon when she (resident) gets upset and anxious she starts shouting. Then you can put the cat in her lap and walk around with her in the wheelchair. That makes her very calm. Otherwise, there is nothing that helps. . . . but when she has the cat, it is only the cat that she cares about.

These examples highlight how the caregivers use robot animals to divert residents from anxiety and challenging behaviors. The physical presence of the robot, as something you can place in an agitated person's care, may be a key ingredient in this—the robot can invoke similar responses as a pet (or a person) but does not run the risk of getting hurt. To succeed in this work the caregivers must also manage their emotional expressions. Trying to calm down a person who is caught in an emotional state of anxiety and worry is not an easy task. The caregivers need to display calm, showing the resident that things are under control and that there is nothing to worry about. This can be performed in different ways. For instance, we observed how the caregivers started to speak more slowly, in a gentler voice, when they sensed that the resident was starting to become wound up. As one caregiver (Karen, Home 2) said, "It is important not to reinforce anything when you notice that someone is worried." Maya (Home 5), a caregiver who is rather new at the job, explained, " It takes a while before you learn how you should act because you still must be calm and not show that you get scared." Many of the other caregivers say the same thing—it is crucial to never reinforce the residents' worries, to stay calm, and to not get caught up in the residents' emotions. Sometimes, caregivers run into a stalemate, where it seems like everything that the caregiver does is wrong. Then, "sometimes it's just enough to change face" and let someone else try, as Nina, an assistant nurse, explains (Home 4). A person who enters fresh into the situation will have some distance from what is happening, and the resident will begin to pay attention simply because of the change. The physical distance that the robot animal affords caregivers can be one part of this. By giving the robot animal the leading role and offering presence—someone to touch and be responsible for—the caregiver takes a supporting role that allows for a more relaxed interaction. The robot may then also become the "fresh face" that leads the resident out of stalemate.

One caregiver (Liam, Home 5) tells us about a resident having a real cat of her own that lives with her in her room. He explains that "I've been told many times that I'm killing the cat, kidnapping the cat, being mean to the cat, all that stuff but it's just a way to communicate their worries. . . . it's just an excuse for how they feel, and you must respond to it in a professional manner." And by a professional manner, the caregiver means a calm manner without getting caught up in the residents' fantasies and worries,

thus, not becoming invested. The caregivers' emotional labor is based on their ability to imagine the resident's situation without adopting their feelings and simultaneously showing a calm and secure face, talking to them, and telling them what will happen without revealing any personal stress or anxiety.[42] Liam adds that a robot cat would probably not have made the patient quite as upset. A real cat can run away or stay hidden and will not always be ready to sit still in your lap and purr, unlike a robot cat that purrs "on demand." Thus, more accurately put, robot cats and dogs are not really mimicking real cats and dogs. Instead, animal robots have a "history"; they can be seen as materializations of the robot designers' specific ideas of appealing traits in some cats and dogs, while other, less pleasing traits are excluded from the design.[43]

THE INVIGORATING ROBOT

In this section, we examine the role of the robot animals as invigorating rather than soothing. Used in this way, the robot can stimulate and encourage activity among residents.[44]

The caregivers act upon robot animals in invigorating roles in a multitude of ways. For instance, they can continually present conversational stimulus, resume broken threads of conversation, encourage the resident to stroke the robot's fur, comment on its forms of expression, and invite the person to interpret them ("Do you think he likes that?"). In fact, it is the caregivers who create the mediatized situation involving the robot and residents. This is clear in how caregivers use robot animals to reinforce their own emotions and express them by being physically active with the robot, patting and playing with it. In addition, the caregivers are engaged in the interaction with the robot cat—using it as a conversational stimulus to encourage the resident to interact with the robot (see figure 5.2).

By drawing on bodily and verbal cues, and by positioning herself in between the robot and resident in an active way—acting and responding to the resident's (re)actions—the caregiver constructed a situation in which the robot was acted upon in the role of an invigorating cat. In line with previous research, the caregivers informed us that the robot cat was used to enrich social interaction, for example, through conversations about previously owned cats and other memories that were evoked by talking about the robot cat.[45] As one caregiver (Olga, Home 1) says:

> We take it and go to them and put it on their lap and talk about cats, or we put it on the table a little like that, so that they can feel it. Then they get to pet it and we talk about their old cats that they had.

FIGURE 5.2
Drawing of a stimulating situation with the robot cat.

Olga described how robots are used as a material participant in conversation with the caregiver. The robot's sheer physicality is difficult to ignore, but it is the caregivers who use this physicality by placing the robot on the residents' lap or on a table in front of them. The difference between this way of using the robot and the one we depicted earlier (the soothing robot animal) is that the caregiver does not hand over the leading role to the robot animal. Having initiated interaction with the resident using the robot animal, the caregiver remains in charge of the interaction and uses the robot as a conversation stimulus—as social fuel for the ongoing interaction between caregiver and resident. This way of using the robot bears similarities to what Pfadenhauer and Dukat describe as acting as "a participant in the interaction with the resident," contrary to acting as "an observer of the residents" when using robot animals or using the robot as a buffer and calming device in situations where residents might be upset, as described previously.[46]

These different uses of robot animals not only encourage residents to engage in different activities but also demand different emotional management of the caregiver. The next excerpt involves a caregiver (Penny, Home 3) who is trying to engage two residents, sitting by a table, in interaction with the robot cat:

Penny: We're having so much fun!

Resident 1: No.

(The caregiver laughs and turns to the other resident instead.)

Penny: This is fun. Are you having a nice time?

Resident 2: You bet!

Penny: Good to hear. Have you seen this?

(The caregiver pats the robot cat.)

Robot cat: Meow!

In this example, the caregiver used the robot cat—more or less successfully—as an object around which to come together and share joy. The caregiver did not ask the residents if they wanted to use the robot; instead, she stated how much fun it was. Failing to engage the first resident, the caregiver quickly turned to another resident who was more receptive. While a negative response, such as the first resident's, could have been treated as a "downer," the caregiver can, thus, be understood as performing emotional labor, sustaining the initial presentation of "having fun." The cat's role in this was to provide an object that could still participate with its own contributions—its physical appearance, sound, and movements—which the others together can observe, touch, and comment on. In this emotional labor, the reinforcement of emotions is a key element, as opposed to situations where residents need soothing. This can, for example, be accomplished with a happy, loud voice, as we see in the next example (Home 3):

Penny: He (refers to the robot) is talking to you!

Resident: Prrrr . . . (Imitating the cats' purring sound)

Penny: Hear how he's talking to you . . . he purrs.

Resident: Yes, it's funny.

Penny: Look! He comes closer to you (pushes the robot closer to the resident)

Robot cat: Meow!

Penny: Oh, how he's talking to you!

The caregiver uses words and tone of voice to call attention to the robot cat but also pushes the robot closer to the resident trying to get the resident to touch the robot. In this way, the caregiver works hard to get the resident interested in the robot cat by heightening her own emotions, acting astonished at the robot cat's abilities. By exaggerating their own emotions—expressing happiness and surprise—the caregivers work to evoke similar emotions in the

resident. To further encourage the resident to engage in interaction with the robot, the caregiver sometimes speaks through the robot: "'Pat me, pat me,' says the cat" (Ruby, Home 3). In doing this, the caregivers use the "evocativeness" of the robot cat to spark a feeling, a thought, or a memory in the resident and that they will respond to the caregivers' attempts to initiate an interaction.[47]

The caregivers' exaggeration of verbal expressions of joyfulness was often followed up by corporeal expressions such as smiling and laughing while talking to the residents and trying to get them to interact with the robot. By sounding as well as looking happy, the caregiver is both telling and showing the residents how to understand the situation as fun.

EMOTIONAL LABOR IN THE AGE OF ROBOTIZED CARE

By using the concept of emotional labor to analyze how the caregivers use robot animals in relation to the residents we can see that it is a required skill to express and regulate one's emotions, according to the purpose of interaction as well as to the residents' mood. Our analysis emphasizes the importance of being attentive to the residents' responses when using robot animals. It should be noted that people with dementia may react in different ways to the robots, depending on individual preferences and on how far the illness has progressed. According to some of the caregivers, it can be difficult to use the robot animal if the residents are "too alert" (Home 2, Caregiver 6) and understand that the robot animal is a machine. However, other caregivers said that some residents used the robots while knowing that on some level that they were not real. This places great demands on the caregivers to use the robot animals, including expressing and regulating one's emotions, according to the needs of each resident. Although we have shown that caregivers have different stances toward technology backstage, a central finding is, therefore, how their frontstage emotional labor depends on the situation and the needs and wishes of the residents.[48] This attentiveness can be exemplified in the following example:

> Should you be strict, or should you be happy, or how should you be? Towards Gunnar (resident) I must be in different ways all the time because he is in different ways all the time. So sometimes it's appropriate to be happy and cheerful, but sometimes he thinks that it wasn't so fun, and then you must tone down yourself. (Sonia, Home 2).

This also means that robot animals should not be understood as an engineered panacea—robots will work differently with different persons, and

sometimes the impact even varies with the same person. And as several of the interviewees pointed out, as dementia is a degenerative disease, even someone who dismissed the robots as toys may have a change of heart and may begin treating the robots as if they were real animals.

We have also seen indications of how the caregivers, when talking among themselves, expressed different emotions connected to different types of technology. While it may be easier for the caregivers to integrate technological devices that adhere to established values of care work, devices that threaten or compete with such values might be more difficult to accept.[49] In this chapter, we have discussed this as the importance of using technological devices in ways that make them meaningful to the caregivers. But we also recognize a further need to pursue the meaning of technology in care work further in future research.

Emotional labor is central in care, related to being present for another person. Thus, care ideals come to life in caregivers' attempts to flexibly respond to residents' current situation. In this work, the robot animals seem to work as an extension that can create a buffer between caregivers and residents' agitated behavior. Robot animals may also be used to accentuate or share an emotional state, initiated by the caregiver. Questions about less humanized ways of working when technology is involved may be more warranted when robots are used as a replacement for human contact. We saw some examples of how robot animals were used in a soothing way, moving the focus from the caregiver to the robot. The use of robots was usually combined with emotional labor—for the robots to work, caregivers also needed to be able to manage their emotions, minimizing their own overt emotional reactions. While this may seem like a replacement of human interaction with robotic devices, human caregivers were usually present while keeping to the professional ideal of staying calm. Ethics of care require caregivers to adopt a certain level of emotional distance from the cared-for persons—something that robot animals here can help to enable.[50] In our analysis, it is clear that technology use requires skilled care workers to make sense of and proffer certain uses of robot animals.

Our findings thus corroborate previous research[51] showing that the use of robots is related to their meaning for participants. Focusing on emotional labor, we offer insight into the way caregivers are involved in this process and how robot animals can be used as resources in this work. From our analysis, we suggest that robot animals can actualize and provoke traditional care ideals and emotional regimes, which may be renegotiated, or at least discussed and reestablished in relation to the use of robots.

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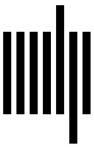

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