

# Robot Dilemmas: Deception and Digital Emotional Labor in Dementia Care Work<sup>1</sup>

## David Redmalm<sup>2</sup>

Associate Professor, School of Health, Care and Social Welfare, Division of Sociology, Mälardalen University, Sweden

### Clara Iversen

Associate Professor, Department of Social Work, Uppsala University, Sweden

## Marcus Persson

Associate Professor, Department of Behavioural Sciences and Learning, Division of Education and Sociology, Linköping University, Sweden

#### Elin Thunman

Associate Professor, Department of Sociology, Uppsala University, Sweden

#### **ABSTRACT**

Based on in-depth interviews with care workers and observational visits to nursing homes, this study investigates how care workers address residents' frequent misperceptions of robot cats and dogs as real animals. The analysis focuses on two aspects: how care workers handle the fact that residents often mistake the robots for real animals, and how their approach to deceptive practices to the robots is related to emotional labor. Three main strategies are identified and explored: telling the truth, remaining vague, and lying. While the first strategy prioritizes ethical guidelines over residents' wellbeing in the moment, the second two strategies are facilitated by physical and verbal cues, as well as storytelling in collaboration with colleagues and residents. Each strategy also entails a dilemma, as each carries its own ethical challenges.

#### **KEYWORDS**

Alzheimer's disease / deceptive practices / dementia / emotional labor / health and welfare technology / lies / lying / nursing / posthumanist theory / science and technology studies

ementia care workers face dilemmas in their work with patients and robot animals. While guidelines, particularly in a Swedish context, are strict about the obligation to be truthful about a robot's capabilities (SMER 2014, p. 60), correcting a patient's belief that a robot cat or dog is alive may cause them distress. In fact, the mimicry of real, living animals—their built-in 'entrapment', which can 'entice and seduce' users (Leeson 2017, p. 30)—is a key characteristic of robot animals (Sharkey & Sharkey 2021; Shibata et al. 1996; Wardle & Derakhshan 2017, p. 20). Studies have suggested that robots can make users with dementia calmer (Birks et al. 2016; Robinson et al. 2016), but their function is not limited to having a soothing effect: robots also engage



<sup>&</sup>lt;sup>1</sup> You can find this text and its DOI at <a href="https://tidsskrift.dk/njwls/index">https://tidsskrift.dk/njwls/index</a>.

<sup>&</sup>lt;sup>2</sup> Corresponding author. E-mail: <u>david.redmalm@mdu.se</u>.



users into interactions and may evoke a spectrum of emotions, including affection for the robots (Chevallier 2022; Persson et al. 2024b). Correcting a false belief—a 'reality disjuncture'—regarding a robot's status can therefore be understood as working against the robot's intended purpose and questioning the patient's competence, and so both lying and telling the truth may have negative consequences for the care relationship. Thus, balancing moral and practical implications of pursuing truth in the face of reality disjunctures constitutes a key aspect of dementia care workers' emotional labor (see Persson et al. 2025; Gwernan-Jones et al. 2020; Hochschild 1983; Lewis 2005).

The guiding principle to be truthful is rooted in general care values concerning patients' autonomy, integrity, self-determination, and equality—values that are legally protected in Sweden. However, guidelines and policy documents rarely address everyday situations. In this article, we present a study on the use of robot animals in care homes for people with dementia, with the aim of identifying care workers' strategies concerning deception, and the emotional labor they perform to balance truth and lies. Drawing on science and technology studies (STS) combined with the sociology of emotion, we show how the robots' affordances present specific dilemmas and how care workers draw on emotions to manage reality disjunctures, In line with Stacey and Suchman (2012, p. 24), the present study aims 'to slow down the rhetorics of life-like machines and to attend closely to the material practices of their realization'. Part of this close study of the use of animal robots in practice is to examine the emotional labor (Hochschild 1983) care workers perform in interactions involving nursing home residents and robots. By taking a posthumanist perspective on care work, we also critically approach norms associated with humanist ideals that may shape dementia care work in problematic ways (Jenkins 2017; Ouinn & Blandon 2020).

The dilemmas related to the use of these robots are connected to a broader challenge concerning deceptive practices in dementia care. Previous research suggests that deceptive practices are widespread in dementia care (see Cantone et al. 2019; Culley et al. 2013; James et al. 2006). Yet, the guidelines about deceptive practices vary across countries. While Sweden's policies on deceptive practices are restrictive, the guidelines are less clear in other Nordic countries. In Denmark, there are many sets of guidelines, but only a few of them discuss ethical aspects of dementia care in-depth, and recommendations concerning dignified behavior and autonomy, for example, vary (Schou-Juul 2023; Skov et al. 2024). The Norwegian strategy for dementia care contains no thorough discussion of ethical dilemmas—the guidelines stress the importance of respecting the way people with dementia experience the world, but the document does not give advice concerning deceptive strategies (The Norwegian Department of Health 2015). In Europe, one of the most elaborate guidelines on lying and deception are found in the UK (Jackman 2020). As the British Newcastle model suggests, lying is justified in select cases if used with caution, and exclusively in the interest of the person cared for (see Kirtley & Williamson 2016). Lying is also described as acceptable if the person with dementia takes the first initiative, for example, by talking about a deceased spouse as if that person were alive. This position can also be found among care ethicists who argue that 'white lies' in dementia care can be justified if they serve the interest of patients and adhere to their meaning-making practices (Matthias 2015; Tuckett 2004).

The current study draws on and contributes to qualitative research on deceptive practices in dementia care by identifying ways in which care staff handle the emotional aspects of robots' ambiguous status. Based on observational visits to nursing homes





and in-depth interviews with care workers, the present study examines the emotional labor involved in balancing truth and lies in interactions involving robots, nursing home residents, and care staff. The analysis shows how practices for managing the reality of robot animals are associated with specific moral dilemmas that care workers who use robots with residents will need to manage emotionally. While existing guidelines may be helpful in providing an ethical-philosophical framework for considering dementia patients' rights, it is difficult to maintain a consistent approach to the use of robots. This highlights the importance of developing a sociological and situational understanding of dilemmas involving robots.

## Lies in dementia care

People with dementia often have difficulties navigating reality (Hydén & Örulv 2006), and many easily feel negative emotions because of external circumstances, such as fear, sadness, and anger (Frezza et al. 2022). Misperceptions and strong emotions are common symptoms of the disease (Verdelho & Goncalves-Pereira 2017), as well as an inability to perform cognitive and physical activities they once carried out regularly (Preston et al. 2007). When caring for someone with dementia, care workers regularly face the dilemma of whether to correct that person's misconceptions to reinforce their autonomy, or to go along with the misconception to protect the person's feelings so as not to cause stress and anxiety (James & Caiazza 2018). This also partly explains the moral distress that many care workers experience in their work with people with dementia (Gwernan-Jones et al. 2020). Deception in dementia care is thus a difficult moral-philosophical problem, with some scholars supporting a moderate use of white lies if it serves the interests of the person cared for, while others dissuade care workers from using any kind of deception with people with dementia (see Tuckett 2004 for a review). Social animal robots are interesting in relation to this dilemma, as they encourage users to interact with them as if they were real animals, which may incite misconceptions about the situation and the robots' true nature (Matthias 2015; Sharkey & Sharkey 2021).

Although studies of dementia care—both of professional care workers and of family carers—point to a widespread use of deception, quantitative and qualitative results vary in the extent and forms of lying. This may have to do with the fact that it is difficult to operationalize deception—to draw a line where truth ends and a lie begins (Seaman & Stone 2017). Quantitative studies conducted in several national contexts have pointed to a widespread use of lies in dementia care. Culley et al. (2013) conducted a study in the UK of psychiatrists providing consultations for people with dementia, and 69% of the respondents had used lies with their patients. In another British study of care staff in nursing homes for older adults, 93.3% stated that there are advantages to lying in dementia care, and only 1.8% claimed that they never used lies (James et al. 2006). Similarly, in an Italian study with nurses working with people with dementia, only one in ten stated that they never engaged in lying when working with people with dementia (Cantone et al. 2019). Although these studies were conducted in different national contexts and differ in their estimations, they all point to a similar pattern: many care workers lie to people with dementia.

Qualitative studies have identified a variety of deceptive strategies used with people with dementia, among both family care workers and professionals. Some strategies



make use of diversion, like using tricks, changing the subject, making up excuses, and distracting (Blum 2014). Others involve secrecy, like not telling, covering up, concealing, and veiling (Seaman & Stone 2017, pp. 69–70). Yet others more explicitly refer to lying, deception, and benign manipulation (Hasselkus 1997). Varieties of 'playing along' or 'following' are also common in the literature, which focus on the agency of the person being cared for (Blum 2014) as well as the vagueness inherent in playful care practices (Iversen et al. 2024).

'Following' as a strategy can be found in some dementia care guidelines. The Mental Health Foundation in the United Kingdom suggests that lying can be an acceptable strategy if it is a matter of a care worker following the initiatives taken by patients, for example, when they engage in fantasies or seem to relive past experiences (Kirtley & Williamson 2016). Notably, the organization's guidelines express skepticism toward the use of robot animals and other kinds of toys that mimic living beings as these may cause confusion—they are not capable of 'following' users but instead impose a false sense of reality on them. The Newcastle Model suggests that lies can be used as 'a positive intervention strategy' if used sparingly (Jackman 2020, p. 2). Corrective 'reality orientations' are avoided since a person with severe dementia may be unable to distinguish between confabulation and reality. Instead, the model uses validation, which means responding encouragingly and empathetically to a person's utterances or behaviors without trying to correct them. Because validations may encourage further 'reality disjunctures'—for example, if a person insists on visiting a long deceased husband—the Newcastle Model recommends the term 'therapeutic lying', which refers to lies used in the interest of the person cared for, as opposed to manipulative lying used to render people passive and more manageable (Jackman 2020).

An alternative approach that also emphasizes the social context of care can be found in a study of how carers responded to reality disjunctures of patients with dementia in acute care (Pilnick et al. 2025). This study found responses ranging from care workers actively challenging the competing reality, to care workers co-constructing patients' realities. Importantly, they show that the middle-ground responses—diverting the interaction to an alternative aspect of reality or finding common ground within the patient's reality—managed distress as well as supported patients' social selves (in contrast to lying, which may support a patient's subjective self).

To conclude, two main deceptive strategies can be found in previous research: one where care workers 'follow' individuals with dementia without correcting them, and another involving straightforward lying. These strategies correspond to the Newcastle Model's validation and therapeutic lying. At the opposite end of the continuum are reality orientation and correction. In the middle ground lie strategies involving remaining vague and finding common ground within the patient's reality—practices that require in-themoment skill and sensitivity. This study contributes to existing research by focusing on how care workers engage in emotional labor and navigate deception in relation to robot animals—a care tool designed to deceive (Shibata et al. 1996; Sharkey & Sharkey 2021).

# Theoretical approach

There has been increased scholarly attention to the way technological devices are used in practice in elderly care, drawing on theories and methods from social sciences in





general, and STS in particular (Cozza 2021; Chevallier 2022; Höppner 2023; Peine & Neven 2020; Persson et al. 2022). The argument is that regardless of how intricately a technological device is designed, the success of its use will depend on how it is deployed in practice—a focus that includes both the users' reception of it and the mediation of care staff between users and technology. The introduction of technological devices into a social context also shapes that context (see e.g. Latour 1987; Law 2004). From an STS perspective, this is why technological devices are regarded as having agency, and therefore, social robots are 'both mirrors and producers of social life' (DeFalco 2020, p. 48).

Some studies of technology and materiality in dementia care take a posthumanist perspective, arguing that the traditional humanist approach in care work comes with problematic presuppositions about who qualifies to be regarded as a human being (see e.g. DeFalco 2020; Quinn & Blandon 2020). Jenkins (2017) suggests that the notion of 'the human' is widely associated with autonomy, agency, and rationality—a view of humanity shaped by Enlightenment philosophy and deeply embedded in Western culture. When human values are pitched against 'cold technology' in care work, this opposition is made possible by humanist preconceptions. However, from a posthumanist perspective, technological equipment cannot be dismissed as *a priori* anti-humanist, and may instead foster 'everyday creativity' (Dyring & Grøn 2022, p. 15) or certain ways of being that might not otherwise have been possible (Höppner 2023; Peine & Neven 2020).

The ideal of the autonomous and rational human is also present in the debate around lying in dementia care, as guidelines dissuading care workers from lying presuppose that those cared for will be able to separate truth from lie—something that may not be possible for a person with severe dementia. Jongsma and Schweda (2017) underline the need for a reverse chronological perspective on lying. Because dementia has a progressive and irreversible course, the choice of whether to use lies must be evaluated not in terms of the possibility that the truth may be revealed in the future, but rather in relation to what the person would have chosen in the past, when they were capable of making such decisions. Therefore, deception in dementia care cannot be dismissed as nothing more than manipulation, but must be understood as a relational and situational phenomenon that may be both benevolent and ethically problematic—the result of the interaction between care worker, the person cared for, and any technological devices involved.

Dyring and Grøn (2022) propose that the negotiation of reality between dementia patients and care staff or relatives can be regarded as an interruptive world-forming event—a world that might be 'co-inhabited' if caregivers are able to respond to the affective force of the possibilities opened up by such an interruption. They describe an encounter during fieldwork in a Danish dementia unit with Ellen and a stuffed toy animal that she takes care of as if it were alive. Instead of correcting Ellen, staff members and relatives partake in a community of care by engaging in the relationship, reinforcing and co-shaping it. In this way, they share a crafted world in spite of their different ontological perspectives (see also Hydén & Örulv 2006). However, as Lukić (2023) points out, dementia care interventions neglect possibilities of 'worlds-making' when focusing exclusively on improving participants' cognitive skills or to lessen symptoms of dementia. Lukić argues for a posthumanist care practice characterized by an exploratory approach to what it may mean to lead a meaningful life with dementia. Interactions with care robots are often evaluated with respect to only a few parameters, such as stress



6

and anxiety reduction, but with a posthumanist approach, robot interactions might be explored as involving such alternative worlds-making practices. There is therefore a need for more detailed qualitative studies of the use of robots in dementia care that focus less on the device's design and medical effects, and more on the range of responses to it that may sometimes and momentarily create a shared world.

The study of emotions is central to such a venture, as it allows for a more fine-grained conceptualization of different kinds of professional deception. Hochschild (1983) showed how flight attendants manipulate their own emotional register to adhere to the wishes and needs of passengers. In contrast to 'surface acting', that is, changing one's demeanor to display a certain feeling, the flight attendants commonly engaged in 'deep acting', or 'emotion work'—they actively tried to change the way they felt to be able to respond with genuinely positive emotional expressions to passengers' negative behaviors—including aggression and sexual harassment. Hochschild refers to paid emotional work as 'emotional labor', and her interviews revealed that flight attendants engaging in emotional labor often became alienated in relation to their own emotions and lost touch with their emotions in their personal lives.

Lewis (2005) has criticized Hochschild's predominantly negative account of emotional labor. In a study of neonatal nurses, she identified a difference between nurses' 'philanthropic emotion management' whereby empathetic emotional displays were offered as supportive 'gifts' to either parents or to colleagues, and a 'prescriptive-professional form of emotion management', in which nurses adhere to emotional norms tied to their professional roles (Lewis 2005, p. 578). Emotional labor aligned with nurses' own values made their work more meaningful and enabled them to give and receive collegial support. We propose that lying and withholding information in dementia care can be understood along similar lines. Lies can be 'prescriptive-professional' if they are used to save time and manage people with dementia, but when used with the person's best interests in mind, they can also be 'philanthropic'—a form of 'compassionate deception' (Skov et al. 2024). Choosing not to disclose the true nature of a robot to a user who enjoys interacting with it under the belief that it is a real animal may thus be regarded as an emotive 'gift'—a therapeutic lie told while prioritizing the best interest of the person cared for. Such decisions are often grounded in caregivers' broader competencies (Persson et al. 2023).

We have argued that with an approach informed by STS and posthumanism, animal robots used in dementia care can be studied as social actors in interactions involving care workers, users, and the robots themselves. Emotional labor plays a key role, as care workers' emotional displays toward both the robots and their users can influence the outcome of these interactions. In the next section, we discuss how we went about studying human-robot relations in dementia care work.

# **Methodological reflection**

We conducted 93 semi-structured qualitative interviews with people working at 13 different nursing homes, lasting between 20 and 70 minutes. The interviews, conducted between 2022 and 2024, concerned digitalization in elderly care. Robots were discussed in around two-thirds of the interviews. The interviewees were mainly nursing assistants and certified assistant nurses, but additional interviewees were conducted with nursing





home managers and staff involved in implementing health and welfare technology in nursing homes. We also conducted participant observations (Emerson et al. 2011) during visits lasting between one and five days at eight nursing homes with dementia care wards. These visits allowed us to observe how robots were used in daily care work.

All interviewees were provided with both oral and written information about the project and were asked to sign consent forms to participate. For observations, a signed consent form was only requested from participants involved in longer verbal interactions where personal information was disclosed and recorded by the researchers. We ensured that patients, staff and visitors we met during fieldwork were informed about who we were and the purpose of our visits. The observations focused on interactions rather than on specific individuals, and we took care not to record unnecessarily extensive information about specific individuals that could be used to disclose their identity (see further Schuster 1996). The research plan was reviewed and approved by the Swedish Ethical Review Authority (registration number: 2020-04661 and 2023-02119-01).

The interview questions addressed the use of technology in care for older people, including a dedicated section on how robot animals were used—specifically in what situations, for what purposes, and how nursing home residents responded to their presence. This portion of the material is the primary focus of the current article. The theme of lying and deception in relation to robots emerged organically during the interviews, as it became clear that residents often treated the robots as if they were real animals. Therefore, following an initial phase of fieldwork, we added questions about the deceptive aspects of the robot animals to the interview guide. While some interviewees explicitly used the words 'lying' and 'deception' when discussing the robots, other expressions were more common, such as 'following' residents or 'joining them in their reality', which is in line with previous research (Blum 2014; Seaman & Stone 2017). We therefore took care to capture the variety of ways in which perceptions of reality were discussed, rather than focusing solely on what care workers referred to as 'lies'.

Our fieldnotes concentrated on when and how technological devices were utilized within the nursing homes, with particular attention to observations involving robots for this study. The notes detailed the physical environment of the nursing homes, the people involved in the interactions and their behavior, the role the robots played, as well as our own reflections related to the events observed (Hammersley & Atkinson 2007). Fieldnotes were taken during fieldwork and expanded immediately after leaving the site. Typically, notes were organized as episodes, including descriptions of the setting, summaries of conversations, and observations of physical interactions. When relevant, we also documented the robots' movements and sounds to better understand how the robots influenced the interactions (see Chevalier 2023). In total, the fieldnotes amounted to approximately 40 pages of transcribed material.

For the analysis, we employed the deductive, 'directed' thematic analysis as outlined by Vaismoradi (2013). As previous research already identified three main approaches to deception—telling the truth, remaining vague, and lying—we used this conceptualization as a starting point for further exploration. However, as the analysis progressed, it became evident that care workers rarely adhered strictly to a single strategy. In accordance with Vaismoradi's recommendation, we refined and revised the initial themes in response to the empirical material, uncovering an underlying dilemma associated with each category. Accordingly, we conceptualized each strategy for handling deception related to robot animals as a balancing act: between truth and distress, vagueness





and confusion, and deception without fostering distrust. These dilemmas are elaborated upon in the subsequent results section.

# Results: Truth, vagueness, and lies

Most previous studies, policy documents, and treatment models identify or propose one or several of the following strategies when caring for people with dementia appear to live in an alternate reality: (1) telling the truth, even if it may cause distress; (2) remaining vague and avoiding correction of misconceptions and confabulations; and (3) actively facilitating or sustaining an illusion. In this section, we show how these three strategies are applied in relation to animal robots, highlighting the dilemma each strategy entails. We also demonstrate how care staff adopt different emotional stances in response to these dilemmas.

## Telling the truth

Telling the truth in dementia care often means choosing a prescriptive-professional approach to the situation at hand. The care workers in the study who chose this approach took a formal stance to the robots and regarded them primarily as technological devices integrated into the daily lives of nursing home residents, which, according to the guidelines, required clear and careful explanation. This stance did not imply that staff were detached or unemotional toward the residents; rather, they deliberately expressed emotions directed at the robots. For example, they refrained from speaking to the robots as if they were alive or engaging with them in ways that might suggest sentience.

Only a few of the care workers we spoke to said that they consistently explained the true nature of the robots to patients—they underlined that they always inform nursing home residents that the robot animals are indeed robots when introducing them. Those who took the time to provide such explanations shared the view that it would be ethically wrong to lie to them about a device provided by the nursing home. From this perspective, the patient's vulnerability and dependence on the care workers serve to justify a commitment to truth-telling—it is therefore possible to speak of this approach as a prescriptive-professional form of emotional labor, in line with Lewis's (2005) concept.

One assistant nurse, who also worked as a coordinator for introducing technological equipment in care homes, emphasized that care workers should at least initially explain to users how the robots function, to avoid actively misleading them. She explained that 'first of all, I would introduce the [robot] cat to one person at a time', highlighting that to introduce a robot properly, the best way is to get to know the care recipient personally. She gave one example of how to do this: 'Look here, this is new technology, it's a robot that looks like a cat, do you want to pet it? Feel it, there, it can turn around!' However, she also admitted that she would talk about the robots as real living animals, saying things like 'Look at the beautiful cat!,' and petting it 'as if it were a real cat', as she put it. Even in those moments she would find a way of telling the user that it is a robot—not a real cat—once the user had become interested in the robot. Despite engaging playfully with the resident, she prioritized truth-telling over simply maintaining the interaction.





A complicating issue with telling the truth—explaining to residents that the robots are technological devices programmed to respond to them—is that it does not necessarily guarantee transparency. Several assistant nurses noted in interviews that residents with short-term memory loss often forget what they have been told about the robot and continue interacting with it as if it were real—or lose interest altogether if they were not initially engaged. The assistant nurse and technology coordinator who stressed the importance of transparency also remarked, 'you could be introducing this [robot] cat several times a day because they have forgotten what it is and why it's there'. Truth-telling must therefore always be understood in relation to the temporality of dementia (see Jongsma & Schweda 2017).

For most care workers we spoke to, repeatedly explaining to users that the robots are 'just robots' was not a viable option. Such repetition would disrupt the interaction by shifting the residents' focus away from the potentially enjoyable engagement with the robots toward an abstract discussion about their technical functioning. Consequently, when information about the robots must be reiterated continuously, the strategy of truth-telling was abandoned on emotional grounds—due to the stress it would cause. One assistant nurse even described this behavior as 'cruel', framing it as an emotionally harmful action contrary to the essence of care. She likened repeatedly exposing the robot's mechanical parts, such as removing the fur cover to show the power button or battery slot, to sitting next to someone in the cinema who insists on explaining in detail how the film's special effects are made.

Even if care workers explain to users repeatedly that the robots are 'just robots', the robots themselves are designed to challenge that description through their capacity for what Leeeson (2017) terms 'entrapment'. Previous research has shown that people with dementia tend to engage more actively with robot animals than regular stuffed toy animals (Moyle et al. 2016). This is considered an advantage over traditional stuffed animals, as one assistant nurse explained:

We used to have regular stuffed cats. So after all it's good that it makes sounds and moves. Because it's like a real cat. So it's good with technology so that it feels a little bit more like a real one.

The robots' programmed behavioral patterns are designed to sustain users' attention. Even if a care worker informs the user once that the device is a robot, the persistent meowing or barking encourages ongoing interaction as if it were a real animal.

However, sometimes the animatronic features were not necessary for a robot to create the illusion of a living being. In a few nursing homes, staff noticed that the robots' barking and meowing caused stress for some residents, who felt compelled to respond whenever the robots sought attention. As a form of emotion management, staff had chosen to set the robots to silent mode—or simply turn them off—and found that it worked just as well. During fieldwork, one of us met a resident whose robot had been permanently switched off, according to staff members. The woman praised her cat, saying that it is so nice and calm and never makes any fuss. In her room, she kept a bowl of water and cat food for it. This shows that even in the absence of deceptive movements or sounds, the robots do not become more 'honest'—they can still be part of residents' confabulations.





In sum, telling the truth in accordance with guidelines can be understood as adopting a prescriptive-professional emotional approach to the robots. While this approach prioritizes transparency over fostering a meaningful human-robot interaction, it is not necessarily emotionally detached—care workers still perform emotional labor by attending to the individual wishes and needs of residents when introducing the robots. However, truth-telling can be 'cruel': repeatedly trying to convince a resident who is unreceptive that a robot is not real may increase stress and confusion rather than reduce it. Moreover, the robot's capacity to deceive depends heavily on the context and the user; even when robots are turned off, they may still play a role in residents' confabulations. Consequently, the decision to tell the truth presents a dilemma—following guidelines may be the correct procedure, but it may not always be feasible or in the best interest of the resident to remain strictly truthful.

# Remaining vague

A second strategy was to remain vague regarding the robot. An assistant nurse captured this strategy when she talked about the advantages of 'playing along' when residents interact with robots, because explaining how the robot works may worry those who believe that the robot is a real animal. With Hochschild's dramaturgical approach, it might be tempting to view 'playing along' as surface acting in interaction with the robot—the care workers are aware that they are performing an act. But the fact that it is often described as an empathetic and attentive 'following' of the patient suggests that the emotionally engaged care worker is performing deep acting in interaction with the resident. In this vein, care workers also talked about the need to see the world through patients' eyes, or adopting their 'way of thinking', their 'world' or 'worldview'. Here, the nursing home resident is not passively managed by the care worker; instead, the resident is seen as actively choosing some actions and viewpoints over others, and it falls to the care worker to follow along. This becomes apparent in an interview with three assistant nurses, in which they jointly articulated this approach:

A: It's not a matter of tricking anyone, because it's like

B: for their wellbeing

A: Yeah

B: they feel good

C: Yes, it's their reality

A: Yeah, not ours

The moral problem of manipulation is here contrasted with the emotional advantages of following patients in their reality. However, it is difficult to be consistently vague, as vagueness may create confusion.

During our fieldwork, we soon realized that when residents talked about their robot animals like this in such appreciative terms, as real living animals, it would have been nearly impossible to point out that their robots were, in fact, not living at all. On several occasions, when a resident talked about a robot they were petting as a real animal, we responded supportively, only to realize afterwards that we had been complicit in making the animals feel like real animals to the resident. Such responses could be





subtle. As noted in our fieldnotes, a woman who constantly carried around a robot dog in her walker often reacted when the robot made a barking sound: she opened her mouth and would look up, wide-eyed, with a surprised expression. Meeting her gaze empathetically, with a similar expression of wonder, served as emotional validation, as she would then smile and pet her dog. This is something that the staff members regularly did: by responding to the robots as if they were real, and treating the robots with affection—petting them, seeking eye contact, or speaking softly—they engaged in emotional performances toward the robots for the residents' sake.

Robots often got dirty, and sometimes they broke down. One assistant nurse who had a resident in her ward who was very attached to her robot dog explained that, 'in her world it is a real dog, and it's her dog', and suddenly taking the dog away would cause 'chaos'. But finding an appropriate moment for that could be tricky as she kept her robot with her at all times. In this case, the staff replaced it temporarily with an identical one of the same model—complete with the same fur coating—shared by the entire elderly care home. Additionally, they also replaced the robot on two other occasions when it broke down. This is an example of how emotional labor can be quite elaborate—and quite practical. The staff managing the exchanges engaged in emotional performances, pretending nothing had happened to manage the resident's emotions. And even if it demanded an effort, the staff members never told an outright lie when replacing the dysfunctional dog.

The fact that the symptoms of people with dementia usually fluctuate also made it difficult to remain consistently vague. Several care workers noted in interviews that people with dementia have 'good days' and 'bad days', and their capacity to communicate, and the quality of their short-term memory, change from day to day. To present a robot to a person with dementia successfully, a skilled care worker needs a basic understanding of the fluctuating character of the condition, as the robot may work very well with a patient one day, while fail to fulfill its purpose the next. Experienced care workers who know their patients well will know when to follow the patients' way of using the robots, or when it is a good day to tell the truth.

To remain vague about the robots' ontological status is far from a passive endeavor. To play along often involves emotional labor and a thorough understanding of the person cared for—both that person's history and their status and mood for the day. Related to this strategy, we could also recognize the dynamics of emotional labor: instead of responding to the robots as technological devices, care workers would modify their own behavior in accordance with the users' emotional stance towards the robots, and treat the devices as if they were real animals. The dilemma here is that 'vagueness' is not a simple or safe middle ground to avoid both the potential confusion caused by telling the truth and the ethical ambiguity of telling lies.

## Lying

In the previous section, we showed that the line between following users and actively creating an illusion of a living animal can be blurry. However, sometimes care workers actively and consciously engaged in creating this illusion without waiting for the residents' initiative. Some staff members talked about this way of approaching the robots as 'white lies'. One interviewee said that it was not even a matter of white lies, but 'plain



12

lies'. But as an assistant nurse pointed out, acting as if a robot animal is real comes off as a relatively innocuous form of deception compared to other commonly used lies. During interviews, we heard many anecdotes about occasions on which care staff had used white lies in situations not involving robots, such as lying about a resident receiving visitors soon in order to convince them to take a shower, or bending the truth to make residents take their medication.

Several staff members agreed that in busy situations, telling a lie is a quick way to comfort someone while still tending to the urgent matters at hand. Physical cues were sometimes used to pique residents' interest in the robots, such as moving the robot cat or dog gently to make it seem alive. In one dementia care home, the staff had developed a special method of gently tossing cat robots up into a resident's lap so that the robot appeared to actively seek contact with the resident—a strategy that had proven successful. These are not examples of 'playing along,' but rather active attempts to animate the robot. However, with regard to the robots, the lies that staff members told were mainly intended to maintain the bond between resident and robot. One assistant nurse explained:

They [residents] regard them as living. If I were to say, like, but that's not a real one, then they would've been like, 'What?!' Then they get more stressed so you have to talk with it as if it was real and like 'Have you fed it today then?' 'Yeah he's eaten loads of food' they can say then.

Active pretending was often employed when residents had come to 'adopt' a robot animal—some residents became so attached to their animals that they considered them their very own pets. Staff members then made efforts to maintain this sense of a human-animal bond. At one care home, a woman adopted a robot dog and several other stuffed animals in a similar manner, although they were originally purchased for use by the entire ward. A care worker at the nursing home explained: 'When we tried to move them out again, she came out and like "Oh, look, there's my dog" and then she took it back again.' In such cases, staff members often reached a mutual agreement to participate in the confabulation and refer to the robot animal as belonging to the resident who had adopted it.

Such synchronized stories could become important not only to individual residents but also to a ward as a social collective. Stories sometimes evolved around the robots through interactions between staff and residents, and individual 'cats' and 'dogs' sometimes acquired their own backstories—accounts of how these 'animals' ended up in the nursing home and how the residents became their guardians. Props were sometimes used as well; both staff members and family members brought food, bowls, necklaces, and leashes for the robots. Such actions were active attempts to enhance the sense of having a companion animal, going far beyond a relatively passive 'following'. Instead, these engagements can be seen as creative, collaborative attempts at an alternative 'worldsmaking' (Lukić 2023). One woman became so attached to a robot cat that was owned by her nursing home that, when she passed away, 'the cat joined her on her final journey', as an assistant nurse who used to care for the woman put it. Staging the relationship between resident and robot was not a matter of mere surface acting. The emotional labor of encouraging the relationship between robot and nursing home resident continued after the resident had passed away, which indicates that the joint emotional labor in





making a robot 'come alive' is meaningful not only to residents but also to staff members themselves. As one assistant nurse explained: 'They are real cats and dogs to us too—when they are real to the residents, they have to be that to us too'.

However, lies can also backfire. An assistant nurse described one occasion which she had heard about from a colleague in which a lie was exposed. A resident was handed a robot cat as if the cat were alive, without proper instructions. After looking at and petting the robot for a little while, the resident remarked that the cat's ears had a somewhat plastic feel to them and suggested taking the cat to a veterinary clinic. Upon closer inspection, the resident realized that the robot was not a real animal. The assistant nurse explained that the resident became upset and asked 'Why are you trying to trick me?' This episode may serve as a cautionary tale against deceptive strategies. At the same time, several of the interviewed caretakers pointed out that dementia often causes passivity, so without an active intervention by the staff, the robots would risk remaining on the shelf, collecting dust. Usually, only the residents who had 'adopted' a robot animal used them spontaneously.

Using lies in relation to robots could consist of both physical cues used by care staff to animate the robot, and of stories and ways of talking about the robot animal that allowed it to become someone's pet. The dilemma related to lying is that although lies are often told with the nursing home resident's best interest at heart, there still seemed to be a consensus that residents would be hurt if the truth came out. Lying thus always comes with a significant risk, even when done with the best of intentions.

## Conclusion

We have studied three different strategies regarding truthfulness and lies in dementia care work involving robots, and the emotional labor involved in these strategies. The first strategy, telling the truth, meant that care workers prioritized providing information over fostering emotional connection, and followed guidelines on transparency in dementia care over prioritizing the resident's immediate wellbeing. This was not necessarily an emotionally detached strategy, as it also involved being attuned to the resident's abilities and needs. Telling the truth came with a dilemma: even when attempting to be completely transparent, residents might still misunderstand or forget instructions. In addition, the robots themselves called for attention—sometimes even when they were turned off. This meant that it was difficult even for those who strictly tried to follow the guidelines to remain completely truthful (see SMER 2014).

The second and third strategies involved more extensive emotional labor (Hochschild 1983). Remaining vague meant that care workers observed how residents used the robots and played along if residents appeared to think that the robots were real animals. This strategy was not a passive following but a way to actively manage residents' emotions—to allow residents to find comfort in a social robot while at the same time avoiding the potential ethical ambiguity that lying might imply. Care workers here performed emotional labor and acted as if the robot was a real animal in need of attention and affection for the benefit of residents. The dilemma in relation to vagueness is that being vague may create confusion, and by extension, lead care workers to resort to outright lies about the robot. In other words, it is a challenge to remain consistently vague (see James et al. 2006).



\$

Lying was the third strategy and could involve physical cues, for example, animating the robot to make it 'come alive' and using verbal prompts, such as repeating and elaborating on the pet's background to talk about it with residents as if it were a living being with a history. Telling lies demanded more intensive emotional engagement as care staff needed to tell convincing and consistent stories—sometimes in collaboration among staff members in acts of creative worlds-making (Lukić 2023). The dilemma in relation to telling lies is that lies may be exposed, which could create confusion and, by extension, put residents' trust in staff members at risk.

The fact that each strategy entailed a dilemma highlights the limitation of the truthvagueness-lie schema often found in research on deceptive practices in dementia care. When staff members use vagueness and lying in order to support the potential creative outcomes of residents' use of the robots, it may not align with a simplistic correspondence theory of truth, but it may be more truthful in relation to the staff members' values and their professional role. Thus, rather than asking if staff members' use of robots is truthful, one should ask whether it contributes, as Dyring and Grøn (2022, p. 18) put it, to 'composing a metastable community of care that co-configures new meaningful possibilities for inhabiting a shared world'. In other words, the question is whether the deceptive practice involving a robot is a way to distance oneself from residents and to manipulate them into certain behaviors, or if it aims at creating shared meaningful and emotionally attuned experiences (see further Persson et al. 2024a). Indeed, emotional attentiveness plays a central role in all three strategies: a commitment to protecting vulnerable nursing home residents from deceit, an attunement to the patient's reality, or efforts to maintain a safe environment. In this way, care workers regularly orient to an emotional rather than factual truth, meaning that they approach the robots in terms of their emotional significance rather than technical construction. This may explain why the emotional labor performed in relation to robots seemed to be a meaningful 'philanthropic labor' to many of the interviewees (see Lewis 2005).

Previous research often describes deception in the interest of those being cared for based on an absolute distinction between truth and lie: 'therapeutic lying' (Jackman 2020), 'compassionate deception' (Skov et al. 2024), and 'playing along' (Blum 2014). 'Therapeutic lying' implies that there is a more honest way of approaching nursing home residents with dementia, and, as Murphy (2024, p. 61) points out, 'playing along' can risk sounding infantilizing, neglecting the resident's experience and eliding 'the genuine overlap in phenomenal worlds that can occur in the context of caregiving for those with dementia'. In contrast, when we consider strategies related to deception as dilemmas, we emphasize that each strategy can be understood as a balancing act aimed at finding a 'true' commonality based on patients' actions and accounts (see also James & Caiazza 2018; Pilnick et al. 2025). While each strategy comes with the risk of creating confusion and distress, and may be used instrumentally to find pragmatic shortcuts and facilitate care work, they can also create new possibilities for 'being-with dementia' (Murphy 2024, p. 67)—'world-forming events' (Dyring & Grøn 2022) or acts of 'worlds-making' (Lukić 2023) beyond a simplistic correspondence theory of truth.

Another contribution of this study to research examining deception in dementia care is our focus on robots that in themselves encourage deceit. On one hand, lies about robots may be seen as less serious than other lies because they concern fun and entertainment rather than active decision-making on serious topics, for example, concerning treatment (see Redmalm et al. 2024). On the other hand, 'fun and entertainment' are





key to residents' social relationships, and feeling deceived in this area may cause damage to the patient's social self (see Pilnick et al. 2025). For instance, previous research (Chevallier 2022; Iversen et al. 2024) suggests that the vagueness involved in encouraging playfulness with robot animals can produce a dilemma of inclusion with patients who do not wish to play: patients should be able to opt out of activities and various forms of entertainment, but part of care workers' job is to include patients in health-promoting activities. In the present study, many interviewees describe how they actively enact a reality where robot animals are treated as pets. This work clearly requires a balancing act not to take motivation too far. Thus, in dementia care work, there should be room to continuously discuss and evaluate how the strategies involving robots work with and for different residents (see Jackman 2020). Likewise, it is also important to encourage discussions concerning forms of pragmatic lying more generally. Many instances of deception that we saw focused on practical necessities and institutional routines. Such routine, offhand lies are clearly not attempts at creating shared worlds and may instead be viewed as a warning sign of institutional problems where care workers' ability to provide high-quality care is impeded.

Approaching the use of robots in dementia care as digital emotional labor provides a language that can be used to highlight the emotional rather than the factual aspects of the use of social robots. The different robot strategies can then be understood as care workers' balancing acts between truth and lie—acts aimed at finding an emotional common ground with the persons they care for. Although the efforts carried out to enable the perception of the robots as real animals were generally said to be performed with the residents' best interest at heart, all three strategies generated different kinds of dilemmas. Therefore, further sociological and situational, context-sensitive qualitative studies are needed to better understand the use of social robots in care work.

# Acknowledgments

The authors want to take the opportunity to thank the two anonymous reviewers for their helpful comments, especially concerning co-inhabited worlds and the limitations of the truth-vagueness-lie schema. This work was supported by Afa Insurance in Sweden (Grant no. 220257).

## References

- Birks, M., Bodak, M., Barlas, J., Harwood, J. & Pether, M. (2016). Robotic seals as therapeutic tools in an aged care facility: a qualitative study. Journal of Aging Research: Article ID 8569602. https://doi.org/10.1155/2016/8569602
- Blum, N. S. (1994). Deceptive practices in managing a family member with Alzheimer's disease. Symbolic Interaction, 17(1): 21–36. https://doi.org/10.1525/si.1994.17.1.21
- Cantone, D., Attena, F., Cerrone, S., Fabozzi, A., Rossiello, R., Spagnoli, L. & Pelullo, C. P. (2019). Lying to patients with dementia: Attitudes versus behaviours in nurses. Nursing Ethics, 26(4): 984–992. <a href="https://doi.org/10.1177/0969733017739782">https://doi.org/10.1177/0969733017739782</a>
- Chevallier, M. (2023). Staging Paro: The care of making robot(s) care. Social Studies of Science, 53(5): 635–659. https://doi.org/10.1177/03063127221126148





- Cozza, M. (2021). Elderliness: The agential inseparability of ageing and assistive technologies. In Peine, A., Marshall, B. L., Martin, W. & Neven, L. (Eds.), Socio–Gerontechnology: Interdisciplinary Critical Studies of Ageing and Technology, pp. 70–84. London: Routledge. <a href="https://doi.org/10.4324/9780429278266-6">https://doi.org/10.4324/9780429278266-6</a>
- Culley, H., Barber, R., Hope, A. & James, I. (2013). Therapeutic lying in dementia care. Nursing Standard, 28(1): 35–39. https://doi.org/10.7748/ns2013.09.28.1.35.e7749
- DeFalco, A. (2020). Towards a theory of posthuman care: Real humans and caring robots. Body & Society, 26(3): 31–60. https://doi.org/10.1177/1357034X20917450
- Dyring, R. & Grøn, L. (2022). Ellen and the little one: A critical phenomenology of potentiality in life with dementia. Anthropological Theory, 22(1): 3–25.
- Emerson, R. M., Fretz, R. I. & Shaw, L. L. (2011). Writing Ethnographic Fieldnotes. Chicago: University of Chicago Press. https://doi.org/10.7208/chicago/9780226206868.001.0001
- Frezza, G., Veldhuis, J. & Burgers, C. (2022). Expressing negative emotions as a key to living with and coping with dementia. SSM Qualitative Research in Health, 2: Article 100129. https://doi.org/10.1016/j.ssmqr.2022.100129
- Gwernan-Jones, R., Abbott, R., Lourida, I., Rogers, M., Green, C., Ball, S., Hemsley, A., Cheeseman, D., Clare, L., Moore, D. A., Hussey, C., Coxon, G., Llewellyn, D. J., Naldrett, T. & Thompson Coon, J. O. (2020). The experiences of hospital staff who provide care for people living with dementia: A systematic review and synthesis of qualitative studies. International Journal of Older People Nursing, 15(4): Article ID e12325. <a href="https://doi.org/10.1111/opn.12325">https://doi.org/10.1111/opn.12325</a>
- Hammersley, M. & Atkinson, P. (2007). Ethnography: Principles in Practice. Third edition. London: Routledge. <a href="https://doi.org/10.4324/9781315146027">https://doi.org/10.4324/9781315146027</a>
- Hasselkus, B. R. (1997). Everyday ethics in dementia day care: Narratives of crossing the line. The Gerontologist, 37(5): 640–649. https://doi.org/10.1093/geront/37.5.640
- Hochschild, A. R. (1983). The Managed Heart: Commercialization of Human Feeling. California: University of California Press.
- Hydén, L-C. & Örulv, L. (2006). Confabulation: Sense-making, self-making and world-making in dementia. Discourse Studies, 8(5): 647–673. https://doi.org/10.1177/1461445606067333
- Höppner, G. (2023). Distributed age(ing): Features of a material gerontology. Journal of Aging Studies, 67: Article 101185. https://doi.org/10.1016/j.jaging.2023.101185
- Iversen, C., Persson, M. & Redmalm, D. (2024). Playful framings of social robots in dementia care: Reconsidering the principle of transparency in interactions with robot animals. Ageing & Society, 45(8): 1585–1606. https://doi.org/10.1017/S0144686X24000539
- Jackman, L. (2020). Extending the Newcastle Model: How therapeutic communication can reduce distress in people with dementia. Nursing Older People, 32(2): 33–41. <a href="https://doi.org/10.7748/nop.2020.e1206">https://doi.org/10.7748/nop.2020.e1206</a>
- James, I. A. & Caiazza, R. (2018). Therapeutic lies in dementia care: Should psychologists teach others to be person-centred liars? Behavioural and Cognitive Psychotherapy, 46(4): 454–462. https://doi.org/10.1017/S1352465818000152
- James, I. A., Wood-Mitchell, A. J., Waterworth, A. M., Mackenzie, L. E. & Cunningham, J. (2006). Lying to people with dementia: Developing ethical guidelines for care settings. International Journal of Geriatric Psychiatry, 21: 800–801. <a href="https://doi.org/10.1002/gps.1551">https://doi.org/10.1002/gps.1551</a>
- Jenkins, N. (2017). No substitute for human touch? Towards a critically posthumanist approach to dementia care. Ageing & Society, 37(7): 1484–1498. <a href="https://doi.org/10.1017/S0144686X16000453">https://doi.org/10.1017/S0144686X16000453</a>
- Jongsma, K. & Schweda, M. (2018). Return to childhood? Against the infantilization of people with dementia. Bioethics, 32(7): 414–420. https://doi.org/10.1111/bioe.12458
- Kirtley, A. & Williamson, T. (2016). What is Truth?. An Inquiry about Truth and Lying in Dementia Care. London: Mental Health Foundation.





- Latour, B. (1987). Science in Action: How to Follow Scientists and Engineers Through Society. Cambridge, MA: Harvard University Press.
- Law, J. (2004). After Method: Mess in Social Science Research. London: Routledge. <a href="https://doi.org/10.4324/9780203481141">https://doi.org/10.4324/9780203481141</a>
- Leeson, C. (2017). Anthropomorphic robots on the move: A transformative trajectory from Japan to Danish healthcare. PhD thesis, Faculty of Social Sciences, University of Copenhagen.
- Lewis, P. (2005). Suppression or expression: An exploration of emotion management in a special care baby unit. Work, Employment and Society, 19(3): 565–581. <a href="https://doi.org/10.1177/0950017005055673">https://doi.org/10.1177/0950017005055673</a>
- Lukić, D. (2023). Dementia as a material for co-creative art making: Towards feminist post-humanist caring. Journal of Aging Studies, 67: Article 101169. <a href="https://doi.org/10.1016/j.jaging.2023.101169">https://doi.org/10.1016/j.jaging.2023.101169</a>
- Matthias, A (2015). Robot lies in health care: When is deception morally permissible? Kennedy Institute of Ethics Journal, 25(2): 162–169. https://doi.org/10.1353/ken.2015.0007
- Moyle, W., Bramble, M., Jones, C. & Murfield, J. (2016). Care staff perceptions of a social robot called Paro and a look-alike plush toy: A descriptive qualitative approach. Aging & Mental Health, 22(3): 330–335. https://doi.org/10.1080/13607863.2016.1262820
- Murphy, A. (2024). The spirited interworld: Caregiving and the liminal phenomenology of dementia. Puncta, 7(1): 57–68. https://doi.org/10.61372/PJCP.v7i1.5
- The Norwegian Department of Health (2015). Demensplan 2020. (Dementia Care Plan 2020). Policy document published by the Government of Norway, Ministry of Health.
- Peine, A. & Neven, L. (2021). The co-constitution of ageing and technology—A model and agenda. Ageing & Society, 41(12): 2845–2866. <a href="https://doi.org/10.1017/S0144686X20000641">https://doi.org/10.1017/S0144686X20000641</a>
- Persson, M., Iversen, C. & Redmalm, D. (2025). Robot animals and the emotional labor of caregivers. In Johnson, E. (Ed.). How That Robot Made Me Feel. Cambridge, MA: The MIT Press, pp. 107–125. https://doi.org/0.7551/mitpress/15314.003.0007
- Persson, M., Redmalm, D. & Iversen, C. (2022). Caregivers' use of robots and their effect on work environment: A scoping review. Journal of Technology in Human Services, 40(3): 251–277. https://doi.org/10.1080/15228835.2021.2000554
- Persson, M., Ferm, L., Redmalm, D. & Iversen, C. (2023). Working with robotic animals in dementia care: The significance of caregivers' competences. Nordic Journal of Working Life Studies, 13(3): 49–69. https://doi.org/10.18291/njwls.136521
- Persson, M., Iversen, C. & Redmalm, D. (2024a). Making robots matter in dementia care: Conceptualising the triadic interaction between caregiver, resident and robot animal. Sociology of Health & Illness, 46(6): 1192–1211. <a href="https://doi.org/10.1111/1467-9566.13786">https://doi.org/10.1111/1467-9566.13786</a>
- Persson, M., Thunman, E., Iversen, C. & Redmalm, D. (2024b). Robotic misinformation in dementia care: Emotions as sense-making resources in residents' encounters with robot animals. Frontiers in Sociology, 9: Article 1354978. <a href="https://doi.org/10.3389/fsoc.2024.1354978">https://doi.org/10.3389/fsoc.2024. 1354978</a>
- Pilnick, A., O'Brien, R., Beeke, S., Windeatt-Harrison, I., Bridgstock, L. & Harwood, R. H. (2025). 'I want to get out ... I've got a child at home': Intersubjectivity, reality disjunctures and distress in the care of people living with dementia in the acute hospital. Social Science & Medicine, 369: Article 117805. https://doi.org/10.1016/j.socscimed.2025.117805
- Preston, L., Marshall, A. & Bucks, R. S. (2007). Investigating the ways that older people cope with dementia: A qualitative study. Aging & Mental Health, 11(2): 131–143. <a href="https://doi.org/10.1080/13607860600844572">https://doi.org/10.1080/13607860600844572</a>
- Quinn, J. & Blandon, C. (2020). Lifelong Learning and Dementia: A Posthumanist Perspective. Springer Nature. https://doi.org/10.1007/978-3-030-42231-8



18

- Redmalm, D., Iversen, C. & Persson, M. (2024). Can robots lie? A posthumanist approach to robotic animals and deceptive practices in dementia care. Journal of Aging Studies, 71: Article 101272. <a href="https://doi.org/10.1016/j.jaging.2024.101272">https://doi.org/10.1016/j.jaging.2024.101272</a>
- Redmalm, D., Persson, M. & Iversen, C. (2023) Robotic animals in dementia care: Conceptions of animality and humanity in care organizations. In Hamilton, L. & Tallberg, L. (Eds.), The Oxford Handbook of Animal Organization Studies: A Critical Reader in Ethics, Business and Society. Oxford: Oxford University Press, pp. 409–424. <a href="https://doi.org/10.1093/oxfordhb/9780192848185.013.27">https://doi.org/10.1093/oxfordhb/9780192848185.013.27</a>
- Robinson, H., Broadbent, E. & MacDonald, B. (2016). Group sessions with Paro in a nursing home: Structure, observations, and interviews. Australasian Journal on Ageing, 35(2): 106–112. https://doi.org/10.1111/ajag.12199
- Schou-Juul, F., Nørgaard, S. & Lauridsen, S. M. R. (2023). Ethical issues in dementia guidelines for people with dementia and informal caregivers in Denmark: A qualitative thematic synthesis. Dementia, 22(1): 28–45. https://doi.org/10.1177/14713012221131856
- Schuster, E. (1996). Ethical considerations when conducting ethnographic research in a nursing home setting. Journal of Aging Studies, 10(1): 57–67. <a href="https://doi.org/10.1016/S0890-4065(96)90017-1">https://doi.org/10.1016/S0890-4065(96)90017-1</a>
- Seaman, A. T. & Stone, A. M. (2017). Little white lies: Interrogating the (un)acceptability of deception in the context of dementia. Qualitative Health Research, 27(1): 60–73. <a href="https://doi.org/10.1177/1049732315618370">https://doi.org/10.1177/1049732315618370</a>
- Sharkey, A. & Sharkey, N. (2021). We need to talk about deception in social robotics!. Ethics and Information Technology, 23: 309–316. https://doi.org/10.1007/s10676-020-09573-9
- Shibata, T., Inoue, K. & Irie, R. (1996). Emotional robot for intelligent system-artificial emotional creature project. In Proceedings 5th IEEE International Workshop on Robot and Human Communication, RO-MAN'96 TSUKUBA, Tsukuba, Japan (pp. 466–471). https://doi.org/10.1109/roman.1996.568881
- Skov, S. S., Jensen, A. M., Rasmussen, G., Folker, A. P. & Lauridsen, S. (2024). Compassionate deception: An ethnographic study of how and why health professionals and family members lie when caring for people with dementia in Danish nursing homes. SSM Qualitative Research in Health, 6: Article 100457. https://doi.org/10.1016/j.ssmqr.2024.100457
- Stacey, J. & Suchman, L. (2012). Animation and automation—The liveliness and labours of bodies and machines. Body & Society, 18(1): 1–46. <a href="https://doi.org/10.1177/1357034">https://doi.org/10.1177/1357034</a> X11431845
- Statens Medicinsk-Etiska Råd (SMER) (2014). Robotar och övervakning i vården av äldre Etiska aspekter. (Robots and surveillance in the care of elderly—Ethical aspects). Report no. 2014:2. Stockholm: SMER.
- Tuckett, A. G. (2004). Truth-telling in clinical practice and the arguments for and against: A review of the literature. Nursing Ethics, 11(5): 500–513. <a href="https://doi.org/10.1191/0969733004ne7280a">https://doi.org/10.1191/0969733004ne7280a</a>
- Vaismoradi, M., Turunen, H. & Bondas, T. (2013). Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. Nursing & Health Sciences, 15(3): 398–405. https://doi.org/10.1111/nhs.12048
- Vandemuelebroucke, T., Dierckx de Casterlé, B. & Gastmans, C. (2018). The use of care robots in aged care: A systematic review of argument-based ethics literature, Archives of Gerontology and Geriatrics, 74: 15–25. https://doi.org/10.1016/j.archger.2017.08.014
- Verdelho, A. & Gonçalves-Pereira, M. (Eds.). (2017). Neuropsychiatric Symptoms of Cognitive Impairment and Dementia. Springer International Publishing AG. <a href="https://doi.org/10.1007/978-3-319-39138-0">https://doi.org/10.1007/978-3-319-39138-0</a>.
- Wardle, C. & Derakhshan, H. (2018). Information Disorder: Toward an Interdisciplinary Framework for Research and Policy Making. Strasbourg Cedex: Council of Europe.

