CAREBOTS AND THE VIRTUE OF CARE

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Submitted to the School of Clinical Medicine, Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, in fulfilment of the requirements for the degree Master of Science in Medicine, in the field of Bioethics and Health Law

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Date: 07/07/2021 **Word Count:** 37,790

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ACKNOWLEDGEMENTS

I would like to express my very profound gratitude to both my supervisors for their patience, immense knowledge, unfailing support and continuous encouragement throughout the process of writing this dissertation. This accomplishment would not have been possible without all their guidance. Thank you, Dr Coates and Prof Wareham. I would also like to thank both anonymous examiners for providing valuable and constructive feedback.

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ABSTRACT

The rapid growth and progress of artificial intelligence (AI) ensued striking developments such as carebots with the great capacity to complete intended tasks without human interference through machine- and deep-learning. This advanced capacity may potentially replace human caregivers with carebots in healthcare contexts, especially where human and financial resources are insufficient. However, before welcoming such potential replacement, it is necessary to question what kind of care is ethically essential in healthcare contexts and if carebots can provide this sort of care when/if they replace human caregivers. The significance of human care is highlighted by the argument that it is not morally defensible to replace human caregivers with carebots to provide care as they cannot possess the virtue of care, which is essential to providing good care. In support of this conclusion, I first argue that carebots cannot care in the same way that humans can, although they may act as though they care through emotional computing. Carebots lack the virtue of care because it requires caregivers to respond to the feelings and the suffering of the care recipient through affection, sympathy and empathy. I then argue that the virtue of care is the master virtue required in caregivers to promote good health. It follows both arguments that it is ethically essential for caregivers to possess the virtue of care and that only human caregivers can have this virtue. Consequently, it would be ethically unacceptable to replace human caregivers with carebots.

KEYWORDS: *carebots; caregivers; care recipients; virtuous care; virtue ethics; care ethics; deception; dignity; well-being; affection; sympathy; empathy*

1. INTRODUCTION

1.1 Background literature

The rapid growth of artificial intelligence (AI) holds great potential to mitigate some of the most pressing challenges within healthcare settings (Vallor, 2011). AI is a constellation of technologies allowing machines to emulate human capabilities through advanced levels of intelligence accompanied by the capacity to learn from experiences and adapt over time (University of Pretoria, 2011). Progress in AI has resulted in the development of carebots that complete intended tasks without human interference through machine- and deep-learning (Hersh, 2015; Pendleton *et al.,* 2017). Carebots may assist, support or substitute human caregivers in caring for and monitoring the health of care recipients who are vulnerable and need care (Stahl & Coeckelbergh, 2016). For instance, the elderly, terminally-ill and severely or permanently handicapped.

Key reasons for the development of carebots include reducing healthcare costs, resolve issues regarding the current lack of human and healthcare resources, and reducing physical and psychological strain on human caregivers within healthcare settings (Stahl & Coeckelbergh, 2016; van Wynsberghe, 2013). Other reasons include the capability of carebots to provide care recipients with companionship and to fulfil daily care tasks such as feeding, bathing and walking with or lifting those care recipients who are unable to do so themselves. Additionally, carebots can serve as a reminder to take medication and/or dispense medicine at the required dosage and time (Stahl & Coeckelbergh, 2016; Vallor, 2011; van Wynsberghe, 2013).

Carebots designed to complete intended tasks without human intervention depend on three key components: perception, decision and actuation (Stahl & Coeckelbergh, 2016; van Wynsberghe, 2013). These components are grounded on AI, involving sensors as input devices, an embedded system with higher authority functionality for task execution through data analysis and a motor for motion, respectively (Stahl & Coeckelbergh, 2016; van Wynsberghe, 2013). With this capacity level, carebots may entirely replace human caregivers in caring for care recipients from any category (Stahl & Coeckelbergh, 2016; van Wynsberghe, 2013). This may potentially mitigate the imbalanced ratio of care recipients to human caregivers (van Wynsberghe, 2013).

It is estimated that four out of every five care recipients in Japan's healthcare settings will be under some sort of robotic care within the next few years (Neumann, 2016). Currently, most elderly patients in Japan are assisted by RIBA, a carebot that provides interactive body assistance, such as lifting or setting patients down from beds and wheelchairs (Neumann, 2016). Also, the Sanyo Bath Robot and Cody Robot, which are both physically assistive carebots, provide hygienic care for patients, while in Ireland, Stevie II, a socially assistive carebot with advanced AI features assists in general caring practices (Neumann, 2016).

The increasing implementation of carebots into healthcare settings around the world and the intense research dedicated to developing completely autonomous carebots in the near future has led to substantial debates about the ethics of employing carebots (van Wynsberghe, 2013). One common argument for carebots is by Parks (2010), who emphasises how carebots may reduce the burden of care on caregivers, or how surrendering caring practices to carebots would allow caregivers to willingly choose to give care as opposed to making it feel like a duty (Vallor, 2011).

A common argument against the use of carebots is that of Ienca *et al* (2016), where they question the responsibility for any potential harm caused to the vulnerable through the potential malfunctioning of carebots. Another argument against carebots is presented by authors Sharkey and Sharkey (2012), as well as, Sparrow and Sparrow (2006). These authors focus on the potential infringement of privacy by allowing carebots to monitor and store data regarding the vulnerable. Similarly, Torresen (2018) argues that since carebots may be prone to hacking, the data collected and stored in audio and visual form may be retrieved, leaked and abused, violating the care recipient's privacy and possibly resulting in the reprogramming of carebots for misuse and harm.

However, although these arguments are very much ethically significant and may raise their own ethically complex issues, they are not focused on or addressed in this dissertation. Rather, the focus is on another issue that has received significant attention in the debate on the ethics of using carebots, that is, whether carebots can provide ethically acceptable care for care recipients within healthcare contexts.

In this regard, Sparrow and Sparrow (2006) argue that using carebots to provide emotional care and companionship for care recipients would be deceptive because they would be falsely led to believe that they can have some sort of a relationship with carebots

(Coeckelbergh, 2012; Sharkey & Sharkey, 2012). This may deceive them either consciously or unconsciously through having confidence in the anticipated capacity of the robot to genuinely care. This may result in care recipients merely feeling cared for, as opposed to truly being cared for, which therefore, denies them their human dignity (Coeckelbergh, 2012; Hersh, 2015; Wachsmuth, 2018). These writers claim that the incapacity to apprehend the world correctly is an isolation from reality resulting in a moral failure because human well-being is not served by deception of any sort (Coeckelbergh, 2012; Sharkey & Sharkey, 2012).

Similarly, Feil-Seifer and Matarić (2011) claim that the underestimation or overestimation of the carebot's capabilities may also result in deception that impedes informed decisions. They argue that the deception involved may be inevitable until care recipients become familiar with and thoroughly understand carebots and their abilities (Feil-Seifer & Matarić, 2011). Sharkey (2014) also argues that carebot users are being deceived about their true nature and that a misconception of the carebot's technical abilities exists because of the care recipient's vulnerability, causing them to defectively understand the abilities of carebots.

Parks (2010) adds that this deception may harm the dignity of the care recipient, which leads Sharkey and Sharkey (2012) to claim that the use or implementation of carebots ought to genuinely benefit the vulnerable, as opposed to merely reducing the care burden on caregivers as if these care recipients were mere objects. Failing to achieve this would imply that humans are considered simply as a means to an end, rather than ends in themselves (Parks, 2010; Sharkey & Sharkey, 2012). This misidentification of humans as a mere means to an end leads to objectifying them and disregarding their need to be respected in their autonomy and dignity (Parks, 2010; Sharkey & Sharkey, 2012). A sense of lost autonomy and dignity is indicative of a sense of lost freedom and privacy (Parks, 2010; Sharkey, 2014).

Contrastingly, Decker (2008) argues that from time to time it may be necessary to limit the freedom of the vulnerable in order to protect their health, for example, in cases where they refuse their medication. Coeckelbergh (2010) and Parks (2010) recognise that a deceptive experience may also have a positive impact and propose that attention should be given to understanding how these virtual experiences with carebots disengage the vulnerable from reality, rather than the idea of deception itself. Coeckelbergh (2010; 2015) also puts forward that interactions with carebots could generate a new means of engaging with reality, thereby allowing care recipients to fulfil capabilities like control over their environment, which may increase their sense of autonomy and self-respect.

The key questions underlying the literature just outlined are what kind of care is ethically essential in healthcare contexts and are carebots able to provide this sort of care if or when they replace human caregivers? (Baecaro *et al.*, 2018; Coeckelbergh, 2015). It is clear from the above account that these questions remain controversial. This dissertation intends to defend particular answers to these controversial questions by clearly addressing whether robotic care is adequate for healthcare settings.

1.2 Research question and thesis statement

This dissertation is purely normative, whereby I consider and construe key literature and theoretical frameworks, along with defining and applying certain concepts. I address the research question: "Is it morally defensible to replace human caregivers in healthcare settings with carebots to provide good care for care recipients?" I argue that it is not morally defensible because carebots cannot possess the virtue of care, which is essential to good healthcare, even if they (carebots) may act as though they care.

1.3 Rationale

The rationale for this dissertation is to highlight the significance of human care in healthcare settings and potentially inform appropriate regulatory frameworks in accordance with ethics.

1.4 Research aim and objectives

I aim to articulate and defend the above-mentioned thesis statement through fulfilling the three objectives below:

i. To differentiate between the sorts of care that human caregivers and carebots are capable of providing.

ii. To argue that carebots cannot possess the virtue of care although they may act as though they care through emotional computing.

iii. To argue that care is the master virtue required in caregivers within healthcare settings to promote the well-being of care recipients and that emotional computing is insufficient care.

1.5 Argumentative strategy

The overarching claim that I defend in this dissertation is that it is not morally defensible to replace human caregivers in healthcare settings with carebots to provide good care for care recipients because carebots cannot possess the virtue of care, which is the master virtue required in caregivers.

Premise one

My first premise is that carebots cannot possess the virtue of care although they may act as though they care. I defend this premise with two key claims in chapter three, whereby I clarify what sort of care carebots are capable of and what the virtue of care involves, thereby showing how these sorts of care are distinct and what carebots fail to possess in the virtue of care (Wachsmuth, 2018).

First, I argue that carebots are merely capable of synthetic care, which means that they act as though they care through the illusion that they respond to the feelings and the suffering of the care recipient (Wachsmuth, 2018). This response involves providing physical assistance, virtual emotional labour through emotional computing, and virtual social interactions allowing carebots to recognise and simulate emotions (Baer, 2015; Coeckelbergh, 2012; Sparrow & Sparrow, 2006; Steyl, 2019).

Second, I argue that the virtue of care requires the caregiver to genuinely respond to the care recipient’s feelings and suffering through friendly affection, sympathy and empathy (Steyl, 2019; Wachsmuth, 2018). The term friendly affection is used to indicate that the affection referred to is not meant in any romantic sense. This requires the caregiver to be capable of experiencing true emotions, which is only truly present in humans because they can manifest a range of emotional involvement (Sparrow & Sparrow, 2006).

Premise two

Moreover, having established that human caregivers, but not carebots, can possess or exercise the virtue of care, I move on to defending my second premise in chapter four and five. I claim that the virtue of care is the master virtue required in caregivers within healthcare contexts to provide good healthcare to care recipients, thereby enhancing their well-being (Coeckelbergh, 2012; Sharkey & Sharkey, 2012; Torresen, 2018; Wachsmuth, 2018).

I first defend this premise in chapter four by claiming that carebots may mislead some care recipients into believing that they are truly cared for, thereby disrespecting them as individuals since it is a form of deception that undermines human dignity (Coeckelbergh, 2012; Sharkey & Sharkey, 2012; Torresen, 2018; Wachsmuth, 2018).

In chapter four, I draw from Baer (2015), Sinclair *et al* (2018), and Sharkey and Sharkey (2012) to claim that having carebots act as though they care is much like treating people as mere objects. This also undermines their dignity since only their physical needs are attended to over their emotional and social needs. Some care recipients may be aware that carebots cannot genuinely care, which may cause them to feel neglected or unworthy of having their emotional and social needs met. This may be harmful to their mental health and may indirectly affect physical health (Pearce *et al.*, 2012).

Second, I further defend this premise in chapter five, through the claim that providing adequate emotional care to the care recipient is ethically essential to providing good healthcare, which targets physical, psychological and social needs, to promote or enhance well-being. This can only be truly executed by human caregivers through the virtue of care (Pearce *et al.*, 2012). This is essential to good healthcare, not additional to or independent from it (Baer, 2015; Pearce *et al.*, 2012; Sinclair *et al.*, 2018).

While scientists intend for carebots to potentially model emotions someday, based on recent technological advances, carebots do not appear to be capable of true caring in the near future (Sparrow & Sparrow, 2006; Wachsmuth, 2018). So, this dissertation focuses on current carebot capacities. Hitherto, I have introduced and indicated the area of research focus for this dissertation, and have indicated the rationale, aims and objectives, and argumentative strategy. This dissertation comprises six chapters in total. Below, I give an overview of the remaining five chapters to follow.

1.6 Overview of chapters

In the following chapter, I focus on the concepts of virtue and care. The aim of chapter two is to develop and clarify the conception of the virtue of care that is applied throughout this dissertation, to justify employing it, and to shed light on its application to care. I discuss the common concept of care and good care, how the ethics of care assigns a general ethical role to care, key notions from virtue ethics, the virtue of care and its application to care within healthcare contexts.

In chapter three, I clarify why carebots are incapable of possessing the virtue of care and establish that only human caregivers hold the capacity to potentially possess or exercise it. Through this, I indicate how the care provided by carebots is distinct from the virtue of care and that their care does not provide what is required by this virtue. I discuss the key elements of the virtue of care and indicate how humans generally meet these, while carebots fail to and compare these two sorts of care. My key argument in this chapter is that carebots cannot care in the same way that humans can, although they may act as though they care.

Chapter four focuses on deception and the aspects of dignity that are under threat in the context of robotic care, thereby illustrating how deceit and undermined dignity negatively affect the care given to care recipients. I discuss the concepts of deception, dignity and dignified care, and its relations to well-being. Three key claims are made to support objective three in validating robotic care as insufficient care. First, deception from carebots would undermine the dignity of care recipients (Sparrow & Sparrow, 2006). Second, carebots would undermine the care recipient’s dignity by failing to properly foster their independence and failing to emotionally engage with them (Zardiashvili & Fosch-Villaronga, 2020). Third, carebots would undermine the care recipient’s dignity by making them feel as though they are undeserving of authentic care or as though they are being treated as objects (Sharkey, 2013).

Chapter five focuses on how caregivers who exercise the virtue of care partake in upholding the care recipient’s dignity, thereupon improving their well-being. Here, I draw a connection between the arguments made in this chapter and the preceding one, chapter four. I discuss the different subsets of well-being and its relation to the virtue of care. I make two key claims to further support objective three in validating the virtue of care as the master virtue required in caregivers to promote the care recipient’s well-being. First, I claim that when care recipients feel genuinely cared for and cared about by their caregivers, their overall well-being is fostered. Second, I claim that the virtue of care is required for caregivers to adequately care for and care about care recipients.

Lastly, in chapter six, I summarise key points and arguments made in this dissertation, and discuss some important implications of robotic care within healthcare contexts, followed by concluding remarks.

2. UNDERSTANDING CARE AND VIRTUE

2.1 Introduction

My key claim in this chapter is that the virtue of care is required for a caregiver to adequately address the care recipient’s physical, mental and social needs through friendly affection, sympathy and empathy. My key argument supporting this claim is that the general notion of care is different from the virtue of care, also referred to as good care (Steyl, 2019). This relates to my overarching claim by demonstrating that this difference in conceptions of care entail that good care ought to be the gold standard for moral action and is ethically essential and acceptable to expect as a good standard for professional care. By moral action I mean giving the ideal form of care to all those in need of care.

The previous chapter introduced the focus of the research and concisely laid out the argumentative approach to be employed throughout this dissertation. I now focus on the concepts of virtues and care. Care is fundamentally perceived as goodwill and is often compared with virtue; however, questions surround the notion of care as a potential virtue since a fine line exists between the theories of virtue and care ethics (Steyl, 2019). Given this, I clarify what the concepts of virtue and care both entail, thereby demonstrating any parallel relations between the two to elucidate a particular idea of the virtue of care.

This chapter aims to clarify and motivate the conception of the virtue of care that is applied throughout this dissertation. I discuss care in general and its relevant distinctions, how the ethics of care assigns a general ethical role to care, the key notions of virtue ethics, the virtue of care conception that is applied throughout this dissertation and, finally, how it applies in healthcare contexts.

2.2 The concept of care

The role of this section is to offer a clear understanding of the general notion of care and its distinctions, namely caring *for* and caring *about* a care recipient. These distinctions form both part of good care, but can also be treated individually. Understanding how these form part of good care offers insight into the focused-on concept of the virtue of care, which is addressed in detail further down this chapter in section 2.5.

Care extends across cultures drawing humans into relations with one another, allowing it to be viewed from two key lenses, one, the caregiver, and two, the care recipient (Princeton, 2015; Steyl, 2019). A relation of care is traditional to humans, whereby a caregiver addresses a perceived need of the care recipient based on the particularities of the relationship and the context (Princeton, 2015). This implies that care may also be tied to a line of work within a healthcare setting, often involving expectations from the caregiver to act or feel in certain manners aligning with a particular profession, such as a nurse (Bastawrous, 2013). For the purpose of this dissertation, when referring to any sort of care, it is with reference to care within the healthcare context. Care is not limited to voluntary or relational efforts and may include paid work (Held, 2006).

A caregiver may be defined as either a lay, sub-professional or professional who is in a position at a certain point in time to consciously and intentionally offer care to another individual in proximity (Bastawrous, 2013). On the other hand, a care recipient may be defined as an individual who receives direct help or support from a caregiver in proximity to meet one or more of their human needs, regardless of an existing or non-existing relationship with the caregiver (Bastawrous, 2013; Reblin, 2013). However, it is important to note that caring does not, by default, imply curing because curing is not always possible, while caring always is (Barcaro *et al.*, 2018). Curing alludes to the complete restoration of health by means of actions that concern the practical dimension of meeting needs through surgical procedures, therapy and pharmaceuticals amid others (Barcaro *et al.*, 2019).

Caring is a universally capacious notion largely accepted as an act of benevolence and is generally comparable with virtues like love and charity because of their intersecting frontiers (Steyl, 2019). Given this multi-notion of care, various understandings of this concept exist; however, care remains a fundamentally contested notion containing ambiguities in the various definitions that attempt to capture its essence aptly (Princeton, 2015; Steyl, 2019).

These variations relate care to either an innate quality, value, virtue, emotion, skill or an activity/practice of sentiment (Kalfoss & Cand, 2016; Princeton, 2015). Although one may unconsciously care for another, for the purpose of this dissertation, only conscious care is taken into account. That is, the human caregiver is in a state of awareness concerning his/her own emotions, intentions, choices and actions when deciding to care for or meet the needs of a care recipient (Kalfoss & Cand, 2016; Princeton, 2015).

Caring is a conscious act of nurturing and skilful practices, processes and decisions, wherein the caregiver’s intrinsic motivation and action aim to benefit the care recipient in meeting their needs in hopes of their flourishing (Princeton, 2015). Human flourishing aims to uphold, protect, restore and/or enhance the human experience of living through fundamental elements (VanderWeele, 2017). By this I mean a predisposed cognisance of a care recipient’s given need, a willingness to address that need, the competency to effectively address that need by quality care and a well-informed response from the caregiver in the event of potential exploitation of care practices (VanderWeele, 2017).

Virginia Held recognises care as a collection of responsive activities and values that direct normative verdicts; and caring as an intrinsic character trait enabling one to respond to the needs of others and receive their reaction(s) (Held, 2006). This implies that care may be both an extensive universal practice and value that ties in with all aspects of life, depicting social relations, rather than individual dispositions (Steyl, 2019). Furthermore, Michael Slote and Selma Sevenhuijsen recognise care as a communicative skill of moral reasoning involving empathetic acknowledgement and attention to others (Hamington, 2015; Steyl, 2019).

While James Rachels recognises care as a motive, Diemut Bubeck recognises care as an emotive interaction with others (Bubeck, 1995; Rachels, 1999). According to Nel Noddings (2002), caring is an engaging activity, whereby the caregiver withdraws away from selfish motives to act in the best interests of the care recipient as a result of innate emotive responses and recollections of also being cared for. Noddings (2002) adds that humans yearn and venture towards care, thereby encouraging one to be moral in hopes of experiencing its reciprocity. Milton Mayeroff (1971) holds that caring is essentially assisting others achieve their potential for a fulfilled and meaningful life, thereby allowing them to become who they intend to become (Steyl, 2019). Realising the impact of care on someone stems from the universal experience of being cared for by one and being able to partake in caring for another (Noddings, 2002).

2.2.1 Caring *for* and caring *about*

In this section, I briefly discuss the relevant distinctions of the caring concept to provide further clarity on what this idea entails. Two key distinctions of care include caring *for* and caring *about*, which both provide relief from some form of distress experienced by care recipients (Noddings, 2002). Comprehending this is important in further understanding the virtue of care and what each distinction allows caregivers to offer (Sinclair *et al.,* 2017).

These two distinctions of care are strongly separated by attitudes, feelings and mental states (Marcum, 2012). Caring *about* takes a static form in care, while caring *for* takes a dynamic form (Sinclair *et al.*, 2017). Briefly, caring *about* another refers to a mental or subjective state of concern, while caring *for* refers to an action or activity that serves to uphold the interests of the care recipient (Marcum, 2012).

Caring *about* a care recipient is recognised as the passive application of care, which serve as the grounds to cultivate further concepts and intentions of care (Sinclair *et al.,* 2017). Caring *about* care recipients encourages the involvement or emergence of emotions and to some degree, allows partiality to occur towards care recipients (Sinclair *et al.,* 2017). It allows a caregiver to exhibit deep and authentic compassion, sympathy and empathy towards a care recipient (Sinclair *et al.,* 2017). Caring *about* care recipients enable them to enjoy a deep and emotionally rewarding experience upon having their needs addressed (Sinclair *et al.,* 2017).

Conversely, an emotive component is not strictly required for caring *for* to be exercised because a caregiver is still able to act in ways that may support the survival, progression and role of the care recipient in society (Sinclair *et al.,* 2017). Caring *for* is the practical application of care involving actions of care; it is interactional, enabling the care recipient to respond to and accept the care from the caregiver (Cekaite & Bergnehr, 2018; Sinclair *et al.,* 2017). It can be exercised with or without specific attitudes, feelings and mental states toward a care recipient, for example, emotion is not essential for a caregiver to address any basic physical needs (Marcum, 2012; Sinclair *et al.,* 2017).

Although caring *about* and caring *for* function best in partnership, it is not always the case as some caregivers may care *for* their care recipients without actually caring *about* them (Sinclair *et al.,* 2017). For this reason, these two ideas can be treated separately; however, good care necessitates an unbroken partnership between the two.

The blending of both caring *for* and caring *about* allows for synchrony between a caring activity and caring attitude toward a care recipient, thereby resulting in the provision of good care through holistic care practices (Marcum, 2012; Steyl, 2019). This means that both thoughts and actions involved in care practices are intertwined and directed towards ends, which promote and manifest values as each care practice overlaps and builds onto another practice (Barcaro *et al.*, 2018). This connects all care practices in the overall process of care for a care recipient (Barcaro *et al*., 2018).

Caring *for* is the catalyst through which caring *about* works (Sinclair *et al.,* 2017). However, merely caring *for* care recipients inevitably disregards their emotional or mental needs and focuses purely on addressing physical needs through acts of care, which may be performed devoid of any altruistic emotions, thoughts, desires and intrinsic motivation towards them (Sinclair *et al.,* 2017). The idea that care can be an activity or a virtue may be linked to the idea of caring *for* and caring *about* as it embodies both active and passive forms of care. Care as a virtue embodies both caring *about* and caring *for*, while care as an activity only embodies caring *for* (Sinclair *et al.,* 2017).

Merely caring *for* care recipients appear to be the first and most common resort or approach in cases of care taking, thereby demonstrating inadequacies and the ensuing need for good care (Sinclair *et al.,* 2017). The concept of good care is discussed in section 2.5 as the focused-on conception of the virtue of care.

2.3 Ethics of care and its assigned central ethical role to care

Having discussed care in general and its relevant distinctions, I now discuss the ethics of care and how it assigns a central ethical role to care. This section forms part of the required structure in clarifying and motivating the specific conception of the virtue of care applied throughout this dissertation. This section motivates the ethical role/duty assigned to caregivers by the concept of care, placing significance on reciprocal relationships.

Steyl (2019) presents a version of care ethics with an overview of the key elements within its framework. The central tenets of this theory's framework attributes value to caring relations, applies contextual sensitivity to moral decision-making through particularism and regards emotions morally significant when responding to care recipient's needs (Steyl, 2019).

The ethics of care approaches morality and judgement by accepting both natural and ethical care as its basis and moral imperative (Maio, 2018). Natural care is attributed to affection for those that the caregiver holds personal relations, while ethical care is attributed to a sense of compelled response to another person's predicament, including acquaintances and unfamiliar persons (Monchinski, 2010; Noddings, 2013). This theory places moral significance on human-to-human relationships and strives to maintain these social relations through promoting the well-being of the affiliates thereof (Monchinski, 2010; Noddings, 2013).

Emphasis is placed on care as the foundation in response to the needs of individuals with whom one might have existing relations or individuals in proximity where a potential relationship may develop (Monchinski, 2010; Noddings, 2013). Though the scope of care for a single caregiver cannot stretch enough to allow everyone to be cared for, a caregiver is required to be continually set to care for others in proximity, including reliant and vulnerable individuals outside their personal domestic sphere (Schulz & Eden, 2016).

The inclination to care brings about a sense of duty in agents who seek morality, thereby assigning a general ethical role to care (Noddings, 2013). The duty to care for acquaintances and unfamiliar persons is limited as the theory sets out that relationships must be existing or have the potential to form and must have the potential for reciprocity (Noddings, 2013). Relations play a significant role in the ethics of care because humans are social beings, inevitably part of relationships in which survival or flourishing cannot be fully accomplished alone (Steyl, 2019).

Both relations of partiality and impartiality can simultaneously relate to care in terms of philia or friendly affection (Noddings, 2013). This is because it involves attending to the needs of another and puts forward the idea of regarding another agent as another self, thereby allowing care to take place through interaction, altruism, and collaboration within informal friendships of some sort, with either loved ones or compatriots (Noddings, 2013). Friendships encompass the essence of care (Noddings, 2013).

The care perspective leans towards a concept of humans in a state of interdependence by emerging from or returning to states of relation through birth and old-age, illness or disability, respectively (Steyl, 2019). Human relations help fulfil one’s purpose because of the inbuilt ideal of social functioning (Steyl, 2019). So, the moral significance of care ethics is grounded on the commonly shared dependency within human relations, where dependency launches at birth and is eventually trailed by the potential surrender to disability, illness or frailty. This socially shaped relation between caregivers and care recipients is formed to address basic needs, which allow caregivers to develop moral commitments (Steyl, 2019).

This theory defends care as a moral imperative and moral good, denoting excellence within personal or non-personal relations that pursue care as a primary moral goal because it adds objective or subjective value to its affiliates (Steyl, 2019). However, care as a moral idea and an ethical ideal may raise concern for some because of the lack of moral credit, bringing about an increased need for moral scrutiny and evaluation of caring relations (Noddings, 2002; Steyl, 2019). This can be interpreted as care ethics prioritising the enhancement of human morality and relations over right action, thereby valuing particularism and allowing contextual sensitivity (Noddings, 2002; Steyl, 2019). This is because human relations often constitute caring, allowing duties to develop from vulnerability and emotional relations (Steyl, 2019).

Additionally, the theory of care ethics acknowledges the moral value of particular emotions that require nurturing because emotions also hold power to resolve dilemmas between moral demands (Noddings, 2002; Steyl, 2019). Emotions may yield one's attention to morally applicable aspects in a given scenario, which may in turn, yield a fitting response (Steyl, 2019). Emotions allow for engrossment between the caregiver and care recipient, where the caregiver utilises emotions to enhance their ability to imagine and understand the care recipient's emotional spectrum for a given scenario (Noddings, 2002: Steyl, 2019). This involves caring for the care recipient without any projections, but through mentally immersing into their realm, which may then emotionally drive the caregiver to alleviate any distress or induce a desire to care (Steyl, 2019). Well-calibrated emotions allow for an adequate response to the needs or distress of care recipients in the context of dependency relations (Noddings, 2002; Steyl, 2019).

Care ethics disregards the idea that morality in total ought to be impartial as partiality does not entail moral defectiveness, but rather acknowledges a duty one may feel compelled to fulfil because of a relation with another (Steyl, 2019). Impartialism can also be built into care ethics with partialism as its basis, where impartiality can be a means to a partialistic end. For example, the impartial right to life protects loved ones from the harm of other less cared about individuals (Noddings, 2002; Steyl, 2019). As for impartial relations, emotions like empathy explain obligations to distant others (Steyl, 2019).

Following the above discussion of the ethics of care, next, I discuss key notions within the virtue ethics theory. The virtue of care, as the very term implies, comprises components of both virtue and care, thereby also requiring a discussion of virtues from relevant key ideas within its theory that are central to the conception of the virtue of care applied throughout.

2.4 Virtue ethics

The purpose of this section is to provide an understanding of virtues and virtue ethics, which is later united with the concept of care and care ethics in section 2.5 to formulate a strong conception of the virtue of care, which is essential for the overarching claim going forward.

The key elements of this theory include virtues, practical wisdom, intrinsic motivation and eudaimonia or human flourishing, which together hold a collective relationship with one another (Steyl, 2019). The virtue ethics theory is frequently labelled ‘agent-centred’ because the agent is the primary object of moral evaluation through their character traits that embody their actions (Steyl, 2019).

Virtue ethics allows an individual to selflessly, pragmatically, and impartially recognise and respond to situations in accordance to establish rightness and/or goodness (Steyl, 2019). It embodies the idea that goodness comes before rightness, but that rightness can only be defined in relation to goodness (Steyl, 2019). This means that an account of what makes an action right cannot be given until what is good has been established (Steyl, 2019). It derives its account of right action from prior notions of good character in an independent account of human flourishing (Mitchell, 2015). The criterion for right action is a regulative ideal, entailing that a person has internalised conceptions of excellence in such a way that they are able to adjust their motivation and conduct to conform with or be in harmony with that standard (Mitchell, 2015).

A virtue is an exceptional characteristic that is deep-seated within a person and is connected to one’s excellent actions, thoughts, feelings, desires and intentions (Mitchell, 2015). Virtues do not emerge by nature, nor contrary to nature, but rather as a prospect to be an acquired quality through habituation (Steyl, 2019). Virtues make their possessor a good human through sufficiently attuned actions, desires, emotions and thoughts (Steyl, 2019).

Virtues cannot simply be attributed to individuals as a result of a single or series of witnessed ‘virtuous’ actions without cognizance of their motivation for those actions (Mitchell, 2015). Virtues are meant to be repeated and practised towards completion to correct regions of character that falls short of excellence (Mitchell, 2015). It arises primarily out of experience and is different from mere routine, thereby utilised to decipher the morally correct response in a given scenario (Mitchell, 2015). This actively demonstrates that the moral quality of an action stems from the motivation of the individual, making the individual who possesses the virtue(s) moral in both their act and intention because of their inclination towards the most excellent course of action (Mitchell, 2015). Emotions also hold moral significance as they are in some measure linked to intrinsic motivation (Mitchell, 2015). Emotions often influence the moral choices made by individuals, relating to virtues in the sense that virtuous traits may begin to be nourished or developed from those emotions that motivate moral action. Though some individuals may have good intentions, they may simultaneously lack practical wisdom because of under-developed virtue(s) (Mitchell, 2015). Moral action that is motivated by emotion is then complemented by practical wisdom, which serves as a guide.

Furthermore, virtues are required for humans to live humanly flourishing lives and feature an important link to intrinsic goods, without which eudaimonia or a flourishing life would not be possible (Mitchell, 2015). A flourishing life or one that has reached a state of eudaimonia is characterised by a sort of contentment through the possession and expression of virtues, enabling humans to live in accordance with God’s will and goodness (Steyl, 2019). Humans are social creatures by nature, both sociality and relationships with other humans are significant for proper human flourishing (Steyl, 2019).

Practical wisdom enables one to act morally in a given situation through two key components, namely lived experiences and the ability to prioritise vital aspects of a given event (Mitchell, 2015). This allows one to apply this knowledge correctly, ensuring that their good intentions are suitably fulfilled through virtues, thereby empowering them to live morally (Mitchell, 2015). Practical wisdom enables a virtuous person to be cognizant of the potential consequences of their actions and to prioritise the key rudiments in given circumstances so that the ‘right motivations and actions’ manifest (Mitchell, 2015).

So, a virtuous agent is competent in properly calibrating their processes, actions, desires and emotions to further goodness and achieve a state of flourishing (Steyl, 2019). This agent holds certain standing commitments, which need not always be consciously formulated or applied, but which will govern and shape their motivations and actions (Mitchell, 2015).

The basic similarities between virtue and care ethics are that both theories reject the notion that the substance of morality ought to be represented by stringent moral rules (Mitchell, 2015). Both theories do not instantly consider an action virtuous or caring, without initial awareness of the individual’s character and reason behind the action taken, as well as the emotions involved and intended beneficiary of the action, respectively (Mitchell, 2015; Steyl, 2019). Both offer emotions, particularism and reasoning a place in moral theorising (Mitchell, 2015; Steyl, 2019).

Given these basic similarities between virtue ethics and the ethics of care, a common ground may be found between the foundational claims of these two theories, thereby offering a central point for both frameworks. Next, I present and flesh out the primary relevant concepts and address its significance within the key argument of this chapter.

2.5 The virtue of care and its significance

The function of this section is to clarify and motivate the particular conception of the virtue of care to be applied in evaluations of carebots. This conception aims to assist in providing a clearer basis for both moral enquiry and evaluation of good care, which are crucial for application in healthcare contexts (Mayeroff, 1965; Noddings, 2013).

The virtue of care is essentially framed as an exclusive virtue that emphasises excellent emotional and physical responsiveness that embodies all elements of good care (Steyl, 2019). Briefly, this conception holds care as a virtue and encompasses a virtue framework that is employed over a general ethics of care framework because it provides a clearer basis for both moral enquiry and evaluation of good care (Mayeroff, 1965; Noddings, 2013). This particular conception of the virtue of care is synonymous with good care and utilised interchangeably throughout this dissertation.

According to Steyl, care can be acknowledged in three different manners, that is, i.) care is not at all a virtue, ii.) care is in some measure a virtue operating collectively with other virtues or iii.) care is exclusively a virtue (Steyl, 2019). However, I merely unpack the third notion of care as an exclusive virtue, which is key to the arguments made going forward.

First, it is crucial to continuously keep the mere notion of care and the virtue of care separate from one another, as the mere idea of care does not equate to good care, while this conception of the virtue of care embodies the complete elements of good care (Jimenez, 2016; Sinclair *et al.,* 2017; Steyl, 2019). The reason for this is that although the widespread understood notion of care may likely occur naturally, good care, however, simply does not (Sinclair *et al.,* 2017; Steyl, 2019).

Given the building blocks of virtue ethics, virtues are intended to correct areas of character that fall short of excellence by means of instilled notions, customs, practices or attitudes by persistent instruction (Jimenez, 2016; Steyl, 2019). This defends the idea that the virtue of care itself is not an innate disposition because accepting it as one would imply that good care is naturally present and possibly flawless, requiring no habituation for correction (Jimenez, 2016; Steyl, 2019). However, the capacity to perfect care until it qualifies to be a virtue is innate, which actively shows that good care is initially incomplete or non-existent, requiring habituation towards completion or excellence like all virtues do (Steyl, 2019).

Good care brings about the experience of both caring *about* and caring *for* towards care recipients within virtuous caregivers (Jimenez, 2016; Sinclair *et al.*, 2017). Good care is a separate concept from natural care wherein the intentions and actions of a caregiver aim to benefit or relieve the care recipient by reflecting emotions of affection, sympathy, empathy and consideration through nurturing practices and judgements (Mayeroff, 1965; Steyl, 2019). Caring *about* is essential in caring *for* when discussing the virtue of care because it has an opportunity to grow and be nurtured (Jimenez, 2016; Sinclair *et al.*, 2017).

Good care is a virtue that does not occur naturally, requiring habituation towards completion, while the inclination to care may occur naturally, but may be flawed or present in immoral beings (Harris, 2018; Sinclair *et al.*, 2017; Steyl, 2019). Because good care does not occur naturally, it would require a corrective disposition to bring its set of interlocking traits to completion and the human natural inclination to care can be utilised as a starting point (Steyl, 2019). This entails that the natural inclination towards care may serve as the grounds from which the virtue of care may grow towards excellence or moral maturity (Jimenez, 2016; Steyl, 2019). However, this inclination does not automatically suggest that habituation has not already occurred (Jimenez, 2016; Steyl, 2019).

Good care involves a constellation of traits, which altogether are its building blocks, making up one unitary virtue, namely the virtue of care (Maio, 2018; Steyl, 2019). The virtue of care places importance on the kind of person a caregiver should be to care adequately for a care recipient, which highlights character traits as moral currency (Maio, 2018; Steyl, 2019).

Since good care is required for proper human development and partakes in building human relations, it fosters human flourishing, fulfils virtue's standard and is thus, a virtue (Harris, 2018; Steyl, 2019). Virtuous caregivers are drawn to and invested in the flourishing of others and are essentially motivated to respond to their needs, which institutes certain ends as good in the interests of the care recipient, thereby stimulating certain responses attuned with the caregivers' values to achieve those ends (Maio, 2018; Steyl, 2019). As a result, virtuous caregivers would care both *for* and *about* a care recipient (Harris, 2018; Steyl, 2019).

A truly caring response emerges from good care, which is unique, individualised, and demonstrates a deep understanding of the care recipient's experience and presented need (Steyl, 2019). Each unique case of care would require a separate moral evaluation to determine the moral weight and urgency of the need (Steyl, 2019). Given the relational variability and distinctiveness in needs of various cases of care, during ethical decision-making involving good care or virtuous caregivers, needs cannot be sorted into hierarchies where some needs invariably take precedence over other needs (Steyl, 2019).

The virtue of care expresses conscious conduct of the caregiver towards the care recipient in response to their needs while maintaining feelings, motives, actions and a frame of mind cultivated from friendly affection, sympathy and empathy (Steyl, 2019). Failure to address needs adequately from all three departments may negatively affect both proper human development and the formation of human relations, thereby affecting flourishing (Harris, 2018). Moreover, the virtue of care operates through practical wisdom and also governs or collaborates with a customised set of qualities and capacities, such as attentiveness, responsiveness and respect to meet the objectives of care-giving (Jimenez, 2016; Steyl, 2019).

Friendly affection involves expressing kind-heartedness, warmth, and friendship towards care recipients and allows caregivers to support and encourage them through responding by way of relational understanding and action that promotes their well-being (Sinclair, 2017). It is essentially motivated by love and altruism, and non-conditional and action-oriented responses (Barcaro *et al.*, 2018; Sinclair, 2017).

Sympathy is an emotional response to an emotional state and is felt from a third-person perspective, thereby emotionally sharing the care recipient's distress to a limited extent (Dal Santo *et al.*, 2013; Hardy, 2019). Sympathy is an affective response of pity, which encourages one to enter into a mode of problem-solving (Hesse & Rauscher, 2018; Sinclair, 2017).

Empathy as an emotive capacity to feel with and co-experience emotions with people within appropriate circumstances and relationships (Vallor, 2011). Empathy is a cognitive trait of understanding, enabling caregivers to comprehend the care recipient's subjective experiences (Hesse & Rauscher, 2018). This allows for the comprehension of their needs, concerns, distress, thoughts and emotions (Baghramian, 2019; Dal Santo *et al.,* 2013).

Attentiveness aims to recognise a moment in time when a need arises and to address that need appropriately (Alac, 2016). This means being able to notice what needs attention and when to address it in the best interest of the care recipient (Klaver & Baart, 2011). This involves attentiveness to the emotions, actions, behaviours, tone of voice and words of the care recipients (Bawa *et al.,* 2015; Klaver & Baart, 2011).

Responsiveness is action-oriented and intends to address the need or distress that is presented by the care recipient (Hersh, 2015). The mere response to the care recipient’s distress or needs does not ensure that the care recipient will find relief or feel that their need has been adequately addressed (Hesse & Rauscher, 2018). Responsiveness is not merely acting on the need and requires an understanding of it to respond better (Hesse & Rauscher, 2018).

Respect encourages a caregiver to regard a care recipient as another self (Hesse & Rauscher, 2018). To treat them as ends in themselves and not as a means to ends, and with dignity that is non-conditional (Bangerter *et al.,* 2016; Donaldson, 2017). Respecting the preferences, feelings and beliefs of the care recipient yields a platform where trust can be built or strengthened (Bangerter *et al.,* 2016; Koskenniemi *et al.*, 2015).

Overall, the ingredients of the virtue of care include friendly affection, sympathy and empathy which, along with the objectives of care, namely attentiveness, responsiveness and respect, are central elements of good care, possessed by virtuous caregivers (Jimenez, 2016; Steyl, 2019). This enables them to interact and treat care recipients as dignified individuals requiring support and comfort (Steyl, 2019). These operate together to equip a virtuous caregiver in addressing the care recipient’s physical, mental and social needs (Jimenez, 2016; Steyl, 2019).

Furthermore, attentiveness, responsiveness and respect are merely good traits sprouted from the virtue of care and not moral excellences on their own (Steyl, 2019). This is because i.) good care deduces these traits from itself for virtuous use and, ii.) immoral individuals are also capable of possessing these traits, namely attentiveness, responsiveness and respect, making them rather morally neutral perceptual capacities on their own (Steyl, 2019).

Mere actions that correlate with, foster or resemble the virtue of care do not simply qualify as such (Steyl, 2019). Acts of care ought to emerge from a collaboration of certain character traits of good care in order to make the grade (Steyl, 2019). Not all care can qualify as the virtue of care because a criterion exists in order for care to be considered good (Jimenez, 2016; Sinclair *et al.,* 2017). So, the general idea of care and good care are two distinct concepts (Harris, 2018; Sinclair *et al.,* 2017; Steyl, 2019).

Although natural inclinations to care require fine-tuning and, in some cases, may undergo corrective function, it would not be considered a virtue unless it meets the description of good care (Harris, 2018). This illustrates that not all fine-tuning of care will meet the standard of care as a virtue through the lengthy process of certain engrained patterns of feelings, thoughts, motives, actions and mentality (Steyl, 2019). While the natural human inclination towards care is offered an opportunity to evolve into good care, it is not always guaranteed or fully achieved (Harris, 2018). So merely claiming that natural care is a virtue presents dissonance, yet claiming that good care is a virtue is more precise and ethically reliable.

Having clarified the focused-on conception of the virtue of care, I now turn to the next theme where I discuss its importance and application to professional care within healthcare contexts. Understanding the particular conception of the virtue of care provides a better understanding of the significance of good care within healthcare contexts, discussed below.

2.6 The virtue of care and its application to professional care

Care is crucial to any clinical situation or healthcare context since a pliancy of moral prominence may visit the caregiver, which may not always result in moral action taken (Sinclair *et al.,* 2017). Accordingly, differentiating between the largely accepted notion of care and good care is significant because in professional care, questioning what kind of care is ethically vital in upholding, protecting, enhancing and/or restoring the human experience of living, is both permitted and required (Maio, 2018; The President's Council on Bioethics (PCB), 2005). Accepting that good health entails "a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity" also stimulates the question of ethically essential care in varying contexts (World Health Organization (WHO), 1946).

This allows for a better understanding as to what is ethically appropriate or reasonable to accept and expect from caregivers engaging in professional care within healthcare contexts (Harris, 2018; Maio, 2018; PCB, 2005). Relations between caregivers and care recipients may differ from close, distant, to non-existent and the quality of care given may be compromised by caregivers that lack the virtue of care (PCB, 2005). A morally ideal caregiver would care both *for* and *about* a care recipient (Harris, 2018; Steyl, 2019).

Given the connection between physical health and emotional/mental health, adequate emotional care given to a care recipient may result in improved outcomes of their physical health and a reduced risk of experiencing psychosocial distress (Harris, 2018). Apart from the obvious significance of addressing one's physical needs, addressing emotional needs hold greater significance (Harris, 2018).

On the one hand, professional care provided by caregivers that lack the virtue of care merely fulfil the objectives of care through care practices or activities (Steyl, 2019; PCB, 2005). This idea of care as an activity entails no emotional investment in the care recipient, nor is it obligated by the caregiver to generate acts of care that promote their physical survival, progression and capabilities, while reducing pain and suffering (Maio, 2018; Steyl, 2019; PCB, 2005). However, this may not entirely achieve eudaimonia for care recipients (Maio, 2018).

On the other hand, professional care provided by caregivers that exercise the virtue of care experience true emotions, deep feelings and reciprocity of feelings, which provide for moral intrinsic motivation during the fulfilment of the objectives of care (Steyl, 2019; PCB, 2005). This includes genuine emotions, intrinsic motivations and practical acts of care (Steyl, 2019). The right motive contains an affectionate, sympathetic and empathetic emotional response during the fulfilment process of the objectives of care, which essentially involve addressing the physical, psychosocial and social needs of the care recipient through promoting their survival and progression, while reducing distress (Maio, 2018; Steyl, 2019; PCB, 2005).

Regarding caregivers that exercise the virtue of care and caregivers that do not, both ends of the care spectrum can be appreciated as routes that yield positive health outcomes through the fulfilment of the care objectives (PCB, 2005). Yet, only one is morally desirable and can fully attain human flourishing for care recipients, that is, good care (Steyl, 2019).

2.7 Conclusion

This chapter focused on virtue and care ethics, as well as the concepts of virtues and care. The aim of this chapter was to develop and clarify the conception of the virtue of care that is applied throughout this dissertation, substantiate using it and clarify its application to professional care. I discussed the concept of care, the general ethical role that care ethics assigns to care, and key concepts from virtue ethics. Understanding the focused-on conception of the virtue of care is required to understand the key arguments in the chapters to follow.

To sum up what has been argued so far, care is largely accepted as an act of benevolence, but the general notion of care and good care are two distinct concepts. The virtue of care is synonymous with good care, does not occur naturally, and requires a corrective disposition to bring its set of interlocking traits to completion. It is vital for living a well-rounded, flourishing life, holding character traits as its moral currency.

The virtue of care is required for eudaimonia and reliant on practical wisdom for caregivers to aptly and consciously conduct themselves through friendly affection, sympathy and empathy for the benefit of the care recipient. The feelings, motives, actions and mentality of the caregiver would form from these emotions and would be complemented by traits such as attentiveness, responsiveness and respect to address various physical, mental and emotional needs. The idea that care can be an activity or a virtue may also be linked to the idea of caring *for* and caring *about*. However, when analysing care as an activity separately from virtue, it exposes care as an activity by practical execution of actions or the mere fulfilment of basic care objectives without involving the complete emotional processes of care as a virtue.

A caregiver in possession of the virtue of care holds certain standing commitments relating to authentic emotions that govern and shape their motivations and actions. Care as a virtue requires a sufficiency in the capacity of a caregiver to experience true emotions, deep feelings and reciprocity of feelings, along with the right motivation and the fulfilment of basic care objectives. It facilitates the fruitful attainment of care objectives by enabling one to exhibit deep authentic emotions towards the care recipient. This contributes to the overall goodness of the care recipient through sincerely assisting them with relief from unmet needs or suffering.

Caring through the virtue of care ought to be the gold standard for moral action because it carries a sophisticated degree of emotional involvement for adequate emotional growth and manifestation. This should be expected as a good standard for professional care that is ethically essential. This chapter relates to the overarching claim of this dissertation through first providing an understanding of the significance of good care within healthcare contexts and understanding that it is different from the universally accepted notion of care. Hereafter, claims are made in the next chapter to strongly link the virtue of care to only human capacities.

Next, in chapter three I claim that carebots cannot possess the virtue of care although they may act as though they care. I demonstrate how only humans are capable of possessing this virtue, but granting this does not imply that all human caregivers are inevitably virtuous.

3. CAREBOTS AND CARE

3.1 Introduction

The key argument in this chapter is that carebots cannot care in the same way that humans can, although they may act as though they care. The key claim supporting this argument is that carebots fail to possess the virtue of care. This relates to the overarching claim of this dissertation by establishing that carebots cannot truly care for care recipients as they cannot provide good care, and contributes to establishing why they cannot replace human caregivers in healthcare contexts.

The previous chapter examined the concepts of virtue and care, where I aimed to set out and justify using the conception of the virtue of care that is applied throughout this dissertation. The preceding chapter laid out a skeleton of concepts concerning the virtue of care that I expand on this chapter. This chapter aims to analyse how care from carebots is different from good human care and how it does not offer what is necessitated by the virtue of care. I also consider and respond to objections against my key argument.

Interest in incorporating machine- and deep-learning algorithms into healthcare is significantly increasing, raising the possibility of replacing human caregivers in healthcare contexts with carebots (Barcaro *et al.*, 2018). This is because their embedded algorithms could enhance their physical capabilities to execute caring tasks devoid of human intervention, while their theoretical capabilities may soon qualify to substitute the judgment of human caregivers (Hersh, 2015; Pendleton *et al.,* 2017). This raises the prospect of transitioning into a post-human era of caregiving, thereby affecting human-to-human care. However, carebots cannot care as humans can because they do not possess the virtue of care (Barcaro *et al.*, 2018; Hersh, 2015; Wachsmuth, 2018).

3.2 The application of the virtue of care to human caregivers and carebots

If human caregivers were replaced by carebots, would they be capable of providing better or poorer care than human caregivers? Human caregivers do not inevitably possess all the particular elements of good care, but they do possess the capacity from which these elements can emerge and ripen, forming the virtue of care (Wachsmuth, 2018). Here, I address this question by highlighting the insufficiency of care delivered by carebots. Below, I briefly recapitulate the concept of the virtue of care before further discussing its requirements and reasons to accept that humans meet these, while carebots do not. Understanding that carebots fail to possess the virtue of care supports the view that it is ethically vital to uphold, protect, enhance, and restore the human experience of living through having human caregivers with the ability to exercise the virtue of care (Steyl, 2019).

Both human caregivers and carebots may offer care, but it does not imply, nor is it correct to assume that the care they offer is, by default, birthed from friendly affection, sympathy and empathy as the virtue of care requires. Together, these key elements govern and shape both motivations and actions relating to care practices to enable caregivers to respond properly to the needs or suffering of care recipients (Barcaro *et al.*, 2018; Sinclair, 2017).

3.2.1 Requirements for the virtue of care

Since virtuous care does not simply occur naturally, the natural human inclination towards care offers the ground for corrective function, where the trait may grow through habituation and moral teaching into a virtue to offer good care (Steyl, 2019). As stated in the previous section, the virtue of care expresses the conscious affectionate, sympathetic and empathetic conduct of the caregiver towards the care recipient in response to their needs (Steyl, 2019). The virtue of care is required for eudaimonia and operates through practical wisdom, governing a customised set of qualities and capacities, such as attentiveness, responsiveness and respect to meet the objectives of care giving (Barcaro *et al.*, 2018; Steyl, 2019).

The virtue of care also requires that caregivers attend to each care recipient individually as unique cases, rather than cohorts of categorised needs to be addressed altogether (Barcaro *et al.*, 2018; Steyl, 2019). It requires caregivers to act for the best interests of the care recipient through apt and conscious motives, aspirations, emotions and thoughts sourced from friendly affection, sympathy and empathy to identify, respond and address needs (Alac, 2016). This enables the caregiver to be intrinsically immersed in care interaction unravelling pathways for true caring and deep feelings where reciprocity of feelings or emotional exchange is expected to also take place (Marcum, 2012).

Reciprocity is a primitive biological impulse and unifying feature of all forms of sociality (Sparrow & Sparrow, 2006). It expresses itself as the ability to give and receive emotions in the appropriate circumstances and relations, in an approach that is attuned and suitable to care recipients and their needs (Marcum, 2012; Sparrow & Sparrow, 2006). Reciprocity requires maturation for enhanced understanding of what, how, when, where and whom to reciprocate to (Sparrow & Sparrow, 2006). It is an important tool for sustaining supportive relationships as it facilitates an active caregiver role as opposed to a passive one (Marcum, 2012; Sandoval *et al.*, 2016).

According to Nussbaum, emotions are central to moral judgment and contribute to eudaimonia (Coeckelbergh, 2010). Emotions can be experienced as either attitudes, beliefs or judgments and influences moral judgment through emotional engagement (Coeckelbergh, 2010). The capacity for possessing or experiencing emotions is one of the conditions for moral agency and is dependent on consciousness (Coeckelbergh, 2010). Emotions are key informants on the nature of a given situation (Alac, 2016). Emotions can be analysed through emotional expressions for communication and social coordination or as an organisation of behaviour (Fellous & Arbib, 2005). The first concerns the external features of emotions and is applicable to emotional computing, while the second concerns the internal features of emotions and is applicable to humans (Fellous & Arbib, 2005).

3.2.2 Why human caregivers often meet the virtue of care's requirements

Friendly affection, sympathy and empathy are important for interactions with care recipients and support their recovery (Baghramian, 2019; Barcaro *et al.*, 2018; Steyl, 2019). Since an illness is both a physical and an emotional phenomenon, for a caregiver to address effectively the emotional aspect of needs, the caregiver requires both an understanding of, and the ability to engage with emotional responses (Alac, 2016). True caretaking is merely feasible between and among humans as they can care both *for* and *about* others (Marcum, 2012).

A relationship between a care recipient and caregiver potentially paves a way for true friendly affection, sympathy and empathy to take place by allowing the caregiver to understand the care recipients distress. This response from the caregiver encourages acting for the good of the care recipient by utilising intangible tools such as responsiveness, empathic listening and therapeutic knowledge (Barcaro *et al.*, 2018). Continuous human interaction between caregivers and care recipients gradually allows trust to develop between the two, which in turn, allows more in-depth informational exchange to take place (Barcaro *et al.*, 2018; Steyl, 2019).

Complete reliance on the care recipient's verbal reporting of their needs would not allow for an effective response towards those reported needs, for this reason, a trust-based relationship with care recipients may allow for more in-depth interaction and information exchange (Alac, 2016). Care recipients may also employ several ways to voice their needs or describe its impact on them, such as using various figures of speech, expecting the caregiver to convey its meaning by resorting to shared social assumptions (Alac, 2016).

Only human relationships, such as that between human caregivers and care recipients hold the potential to shape moral decisions through reciprocity (Barcaro *et al.*, 2018). A caring relationship plays an important role in the caregiver's capacity to develop or enhance their practical wisdom to give better-individualised care through increased familiarity with the care recipient's behavioural patterns overtime (Alac, 2016; de Sio & van Wynsberghe, 2016).

This would necessitate that carebots be acquainted with the knowledge and awareness that several elements are interwoven into one another to build the concept of true caring (van Wynsberghe, 2016). Although the basis of such knowledge can be programmed into carebots to filter and advance thier purported knowledge and awareness of the care recipient's common needs, the lack of reciprocity would result in inadequacy in addressing many unmet needs (van Wynsberghe, 2016).

However, needs are capricious in character, unfixed and ever-changing, they are sure to vary over different circumstances and from one individual to the next, requiring competency and cognizance to be possessed by the caregiver (van Wynsberghe, 2016). Competency and cognizance reveal the active role of the care recipient within the process of caring for another through intentional social engagement, thereby introducing reciprocity between the care recipient and caregiver as one or more need(s) are being identified and addressed (van Wynsberghe, 2016).

This reciprocity allows for a better understanding of the multi-faceted, capricious and unfixed needs of care recipients (van Wynsberghe, 2016). Likewise, just as needs are capricious in character, so are caring practices, which differ with each care recipient's specific need (van Wynsberghe, 2016). This supports the requirement that needs be met through reciprocal interaction, where care recipients act with intent to engage in the reciprocal relationship to indicate whether their needs have been met (van Wynsberghe, 2016).

Human caregivers are capable of understanding care holistically as a ground for compassion and fellowship, not merely as a caring practice or treatment (Marcum, 2012). This is because the shared humanity between human caregivers and care recipients allows for the recognition and appreciation of shared experiences, thereby ensuing mutual understanding through their capacities to care about the same or similar things (Marcum, 2012). Human caregivers can relate to care recipients because they possess facsimiles of human emotional fragilities (Marcum, 2012). The awareness of shared frailties may result in the caregiver offering the care recipient relevant wisdom and compassion derived from personal experiences (Alac, 2016; Marcum, 2012).

For human caregivers, imagination and recollections of experiences contribute to their background knowledge, allowing them to better systematise and comprehend knowledge acquired during various single cases, thereby progressing their interpretive skills (Alac, 2016; Marcum, 2012). A caregiver can only truly identify with a care recipient's distress if he/she has also previously suffered similar experience or if the caregiver holds the ability to imagine what that exact distress might be like (Barcaro *et al.*, 2018).

An instance in which a care recipient is vulnerable and dependant on a caregiver offers the opportunity for a relationship and trust to form or be reinforced between the care recipient and the caregiver (de Sio & van Wynsberghe, 2016). Acknowledging human vulnerability is necessary for caring relationships as it allows for efficient judgement to be made and genuine care or treatment to be given (Barcaro *et al.*, 2018; Steyl, 2019).

Human caregivers hold the capacity to deliver individualised care through their ability to make exclusive judgements on single cases of care, apply particular guiding principles to distinctive cases and acknowledge the care recipient's preferences (Coeckelbergh, 2010). Human judgement can be accustomed to essential guidelines in caring practices and adjusted to distinctive needs of individual care recipients (Coeckelbergh, 2010). Human caregivers are capable of responding to characteristics specific to a care recipient when making a professional judgement concerning their care (Coeckelbergh, 2010).

In addition, human caregivers with good social and interactive skills are more likely to understand or identify and address the needs of care recipients since they are more likely to notice subtle nonverbal cues articulated by care recipients (Alac, 2016; Steyl, 2019). Caregivers with good social and interactive skills, and familiar with certain common behavioural patterns in certain care recipients may notice inconsistencies or subtle nonverbal cues, which may likely indicate withheld information (Alac, 2016). Some care recipients may hide their emotions or tend to offer subtle cues of distress or need, for example, a warded off glance or inarticulacy in speech (Alac, 2016; Smith-Morris, 2018).

The importance of good social and interactive skills combined with a relationship between caregivers and their care recipients is linked to the care recipient's verbal reporting of their own needs (Alac, 2016). Some care recipients may understate the burden of their unmet needs, while others may overstate theirs, either because the care recipient may experience uneasiness in revealing any vulnerabilities to the caregiver or simply because of different perceptions regarding the urgency or severity of their needs (Alac, 2016).

When care recipients are open and frank in their verbal accounts of their needs and distress, they subtly invite their caregiver to consult and identify with them (Alac, 2016; de Sio & van Wynsberghe, 2016). This calls for a certain response from the human caregiver, such as empathetic facial expressions or consoling touches, which amplify a care recipients restorative response to care or treatment (Alac, 2016). Touch is the primary non-verbal communication channel for conveying intimate emotions and essential for human physical and emotional wellbeing (Barcaro *et al.*, 2018). Human touch is an instrumental value and an indication of vulnerability, which paves a way for bonds and partiality, thereby reducing the opportunity for objectification to occur between caregivers and care recipients (Barcaro *et al.*, 2018).

Furthermore, human caregivers often offer friendly affection to care recipients by using themselves as an instrument through emotional resonance in the process of relieving suffering (Cekaite & Bergnehr, 2018; Sinclair, 2017). For example, maintaining a positive interactional mode by smiling and laughing with care recipients, readily adjusting to their bodily contact interface, compassionate talk in a soothing mild voice and bodily togetherness (Cekaite & Bergnehr, 2018). This allows for reciprocity like care recipients leaning towards their caregiver until they feel ready to disengage from the embodied co-experience. They often offer sympathy through demonstrative expressions of grandiose gestures or over-expressions of emotion that derive from pity in response to distressing situations (Baghramian, 2019; Hardy, 2019). Human caregivers generally offer empathy through investing emotional energy into interactions with care recipients (Baghramian, 2019; Hesse & Rauscher, 2018). They mentally conceive those feelings and verbalise a perception thereof to offer validation, respect, support and partnership to care recipients (de Sio & van Wynsberghe, 2016; Hesse & Rauscher, 2018).

Human thought is entirely unlike machine thought and the sort of intelligence that technology can achieve (Hersh, 2015). Care recipients would not respond the same way to empathetic expressions, for example, from carebots as compared to human caregivers since their inner workings remain incomprehensible to anyone without the requisite technological background (Barcaro *et al.*, 2018). This supports a context of skilful human interactions to be substituted with carebots that may merely offer technological artifice (Marcum, 2012). Below, I begin the discussion on carebots being incapable of meeting the requirements of the virtue of care.

3.2.3 Why carebots do not often meet the requirements for the virtue of care

The sort of care delivered by carebots simply fails to integrate genuine friendly affection, sympathy and empathy (Baghramian, 2019; Steyl, 2019). These absent features of good care within carebots entail that they cannot truly respond to the distress, needs or emotions of care recipients as they fail to adequately possess abilities such as attentiveness, responsiveness, respect, reciprocity, touch and individuality (Baghramian, 2019; Steyl, 2019). Through emotional computing, which involves machine- and deep-learning, carebots act as though they care by simulating emotions such as friendly affection, sympathy and empathy, and other key components of the virtue of care (Coeckelbergh 2010; Dal Santo *et al.*, 2013).

Emotional computing operates on the principle of imitation rather than creation (Coeckelbergh, 2010; Wachsmuth, 2018). This categorises carebots as virtual subjects with synthetic emotions that imitate human consciousness, emotions, moral agency and responsibility (Coeckelbergh, 2010). Emotional computing does not allow carebots to deliver care as moral actions that develop based on experience or intrinsic motivation (Wachsmuth, 2018). They cannot reflect on their provision of care to recipients of care or understand and engage in any discourse thereof (Wachsmuth, 2018).

The simulation of emotions are not characterised by an orientation toward action or expressions through acts of supererogation or altruism (Sinclair *et al.*, 2017). Simulated affection would fail at developing or nurturing existing virtues or supporting and encouraging the flourishing and well-being of care recipients (Sinclair *et al.*, 2017; Hardy, 2019). Simulated sympathy would fail to act as a reflective and emotional response because carebots cannot pair sympathy with adjustments to emotional responses, understanding, and influence on beliefs and judgments (Coeckelbergh 2010; Dal Santo *et al.*, 2013; Hardy, 2019). Simulated empathy fails to hold a cognitive or emotional feature, and so cannot focus on perspective-taking or compassion (Dal Santo *et al.*, 2013).

Carebots would fail at taking cognizance of the diversity and cultural differences of care recipient’s needs or distress (Tarrant *et al.*, 2014). They would also fail at executing non-judgmental approaches in attempts to address basic and obvious needs or express openness, patience and acceptance within those approaches (Bawa *et al.*, 2015). They cannot successfully give due regard to the feelings, wishes, rights or individual values and traditions of care recipients or even consider their dignity (Sinclair *et al.*, 2017). As a result, carebots would demonstrate standard and systematic attitudes and behaviour as opposed to an individualised approach (Tarrant *et al.*, 2014).

Since carebots do not have the capacity to possess or develop emotions and are not conscious, they are incapable of forming attitudes, beliefs or judgments (Coeckelbergh, 2010). Carebots may only advance their level of emotional computing by better learning to produce the appearance of emotions as both cognition and feelings, making them agents that are morally blind in discerning value and moral concerns (Coeckelbergh, 2010). Carebots do not share a set of emotional frailties with humans, making them inept in responding appropriately with genuine emotion and care (Baghramian, 2019). Their inability to share sets of frailties with humans suggests that they are unable to participate in emotional exchange with care recipients, regardless of their ability to act as though they care through emotional computing (Barcaro *et al.*, 2018; Steyl, 2019).

Carebots are embodied, inanimate communication devices that depend on visual sensors to obtain input that are computed to produce a motor-output (Stahl & Coeckelbergh, 2016; van Wynsberghe, 2013). The physical capacities of carebots depend on three key components, namely perception, decision and actuation, which involve sensors as input devices, an embedded system with higher authority functionality for task execution through data analysis and a motor for motion, respectively (de Sio & van Wynsberghe, 2016). They possess strengths such as the ability to evade human error and inability to feel fatigue, frustration and anxiety; however, all their abilities are executed devoid of genuine emotions, intrinsic motivation and consciousness (Alac, 2016; de Sio & van Wynsberghe, 2016).

Although carebots may be capable of effectively meeting various basic physical needs of care recipients, it appears quite clear that they are unable to do this with needs that can be regarded immaterial, such as emotional, psychological or social needs (Barcaro *et al.*, 2018). Carebots can meet basic physical needs through fulfilling daily care tasks, for example, feeding, bathing, walking with or lifting bed-ridden care recipients, as well as reminding and/or dispensing any required medication at the required dosage and time (de Sio & van Wynsberghe, 2016). Their attempt at meeting the care recipient's social and emotional needs can be achieved through providing companionship by employing voiced communication and emotional computing (Barcaro *et al.*, 2018; Wachsmuth, 2018).

This enables carebots to recognise and express basic emotions in modes that human care recipients can easily grasp (Barcaro *et al.*, 2018; Wachsmuth, 2018). However, having a pre-assembled cognitive package with a model of human emotions is different from human emotions itself because the ability to recognise the emotions of others is acquired from the ability to expressing one's own emotions (Coeckelbergh, 2010; Fellous & Arbib, 2005). Given that carebots cannot possess or experience true emotions themselves, they would fail at completely and adequately recognising the care recipient's emotions, irrespective of their artificially intelligent social sophistication (Fellous & Arbib, 2005). They lack consciousness and feelings, which allows for the mere appearance of emotions (Coeckelbergh, 2010; Wachsmuth, 2018).

Carebots can only care *for* care recipients, as opposed to caring *about* care recipients (Marcum, 2012). For example, the practice of lifting can be effectively performed by carebots as a caring action alone, while human caregivers may perform it as both a caring action and a caring attitude, thereby incorporating both distinctions of the notion of care (de Sio & van Wynsberghe, 2016; Marcum, 2012). When carebots execute tasks aimed at addressing the needs of care recipients, they do not assume all the responsibility that accommodates that specific action like human caregivers normally do, such as attentiveness to the present frailty and vulnerability, fulfilling the action in safe and skilful conducts and distinguishing whether the need has been met (de Sio & van Wynsberghe, 2016).

The carebot's synthetic emotions do not resemble a truly emotional level of experience and are limited to observable behaviour as these are expressed in particularly reduced robotic facial expressions (Becker, 2006; Coeckelbergh 2010; Sparrow & Sparrow 2006). Carebots experience neither the emotions that their expressions convey, nor the physiological reactions that normally accommodate emotions (Becker, 2006; Coeckelbergh 2010; Sparrow & Sparrow 2006). Their expressions of emotion fail to resemble inner life and character, thereby failing to evoke the same level of responsiveness from care recipients as human-to-human interactions because of its artificial and simplified forms of expression (Fellous & Arbib, 2005).

Carebots cannot offer individualised care for each care recipient because they view care recipients through mechanical lenses that align with the inflexibility of their computing, which is encoded into their internal operating system (Coeckelbergh 2010; Wachsmuth, 2018). Carebots have systems grounded on mechanisms that “learn” from current data and so they cannot respond to characteristics specific to individual care recipients when making a judgement concerning the decision-making process of their care (Coeckelbergh, 2010). Carebots are only capable of focusing on existing data regarding particular care recipients and cannot apply particular principles to distinctive cases or overlook the guidelines altogether as an interim measure to best address their needs at an individualised level (Coeckelbergh, 2010).

This implicates that emotional computing has no capacity to allow for any creativity and adaptability when considering the care recipient’s distinctive cases and preferences (Wachsmuth, 2018). For this reason, carebots are unable to make exclusive judgements on single cases of care as they are reliant on their programmed set of medical or caring concepts and algorithms that fail to grasp the virtue of care in its completeness (Barcaro *et al.*, 2018; Wachsmuth, 2018). Their inability to possess facsimiles of human emotional fragilities mean they do not possess the same thought processes and cannot be vulnerable the way humans are, making it unrealistic to even expect individualised care from carebots (Alac, 2016; Steyl, 2019; Wachsmuth, 2018).

They are incapable of possessing human-like interpretive skills and cannot resolve issues that require the application of knowledge gained through socialisation because they lack the resources of human experience (Alac, 2016; Baghramian, 2019; Wachsmuth, 2018). Much of care recipient knowledge and understanding is sourced from socialisation, imagination, and a recollection of individual or past experiences relevant to the case at hand (Alac, 2016). Carebots cannot identify and interpret subtle non-verbal cues or metaphorical responses, and fail to acclimate guidelines specific to needs because they cannot consider the care recipient’s personal and social history as part of the criteria to address current needs effectively (Alac, 2016; Wachsmuth, 2018).

Given that carebots are incapable of social agency, social interaction, social presence and embodied agency, it follows that they are incapable of differentiating themselves from other agents and cannot define their actions as self-generated (Jones, 2017). These incapacities mean that carebots cannot establish interactions or distinguish between social beings, they cannot recognise the dependency of social units on reciprocal expressions, expectations and connections, and cannot facilitate the formation of interactive social units (Jones, 2017).

Carebots cannot perceive care recipients in a shared environment and cannot identify them for communicative encounters because they lack perception and presence (Jones, 2017).

They cannot affiliate with care recipients, exercise practical reason and develop true emotions, which are three interlinked components that endorse the virtue of care (Nussbaum, 2006). This means that carebots are incapable of living with and toward care recipients, recognising and showing concern for them and participate in diverse forms of social interactions (Nussbaum, 2006). They also cannot form conceptions of goodness, partake in critical reflection and have attachments or connections to things and people (Jones, 2017; Nussbaum, 2006).

Additionally, carebots would impede the manifestation and preservation of touch in the healthcare context for the period that the care recipient is under care (Barcaro *et al.*, 2018). Carebots would fail to convey affectionate touching, kindness, participation or various emotional states through kind gestures, glances or eye contact, hugs, gentle strokes and smiles (Barcaro *et al.*, 2018; Cekaite & Bergnehr, 2018). These inadequate expressions may likely feel insincere since they are primary non-verbal communication channels for conveying intimate emotions (de Sio & van Wynsberghe, 2016).

Although friendly affection places emphasis on actions, action-oriented tasks such as feeding care recipients, bathing them, dressing them and so on, does not automatically entail affectionate touch (Parks, 2010). Such tasks can be executed inattentively without emotion, appearing as mere duties that are more mechanical than human and is not associated with caring *about* care recipients (Parks, 2010; Wachsmuth, 2018). Their actions are not motivated by love and cannot qualify as altruistic because behaving altruistically cannot be emotionally rewarding for them as for humans (Aknin *et al.,* 2015).

Carebots are entirely detached and risk treating care recipients as objects (Sharkey, 2013; Sparrow & Sparrow, 2006). They address needs at face value, which encourages potential imprecisions and errors in care because they fail to comprehend and co-experience emotions (Hesse & Rauscher, 2018; Vallor, 2011). Carebots cannot listen attentively by engrossment, cannot accept, validate or respect a care recipient's feelings and thoughts because of their inability to be vulnerable and incapacity for true caring and reciprocity (Baghramian, 2019; de Sio & van Wynsberghe, 2016; Wachsmuth, 2018).

The insufficiency of emotional computing is prominently negative, or in some cases neutral to the care recipient's well-being, while human caregivers in possession of the virtue of care can positively contribute to the well-being of the care recipient. Carebots are unaware of their actions and do not understand the purpose thereof, which hinders proper engagement in reciprocal interaction (de Sio & van Wynsberghe, 2016; Marcum, 2012). Carebots are incapable of attuning to care in this way.

3.3 Potential Objections

In this section, I consider potential objections to the key claim of this chapter and offer counter-arguments. A popular objection against the claim that carebots cannot care in the same way that human caregivers can because they do not possess the virtue of care is that genuine emotion is not required in carebots when providing care for care recipients (Lancaster, 2019). Karen Lancaster (2019) objects to this claim by arguing that human caregivers do not provide a better standard of care than carebots do because human caregivers are also capable of faking emotional care, while still managing to let care recipients feel care.

Lancaster (2019) agrees with authors that argue that carebots cannot reciprocate or truly care for care recipients from emotion, such as Hotzak (2015), Tuisku *et al* (2019), Sparrow and Sparrow (2006), as well as Sharkey and Sharkey (2012). However, she argues that the simulation of emotions is enough for care recipients if they interpret the carebot's behaviour or actions as caring (Lancaster, 2019). Lancer (2019) also claims that codes of conduct for medical professionals do not stipulate how or what caregivers must feel towards care recipients, but rather, how they ought to behave towards them, thereby making the carebots insufficient emotional state irrelevant.

Lancaster (2019) then argues that carebots can provide care as effectively as human caregivers can, despite the absence of true emotions, and that picking human caregivers over carebots could be considered speciesist (Lancaster, 2019). This is because human caregivers are not requested to provide evidence of their true caring emotions for care recipients, rather it is taken at face value even if faked (Lancaster, 2019). This necessitates that carebots receive the same bypass in not having to prove true emotions of care, otherwise human caregivers who pretend to care should be excluded from the classification of carers who genuinely care (Lancaster, 2019).

Contrastingly, having care recipients interpret the carebots behaviour or actions as truly caring entails deception of the care recipient. The deception between the carebot and the care recipient presents at the point of caretaking or rather, the lack of true caring, which results from the absence of the virtue of care (Sharkey & Sharkey, 2012; Torresen, 2018). In response to this claim, I side with prominent authors such as Sharkey and Sharkey (2012), Sparrow and Sparrow (2006) and Torresen (2018) who argue that this translates to a moral failure because human well-being is not served by deception. The concept of deception in care is further addressed in chapter four.

Lancaster (2019) states that physical care without any emotional input is still labelled care because it involves focus on the survival of the care recipient through performing tasks like feeding them, but without experiencing any emotion towards them. It does follow that carebots can provide care as human caregivers do or even likely better care than humans can, only if the sort of care referred to is that which is merely action-based. This concept was addressed in the previous chapter under the concept of care as caring *for*. Carebots possess different physical strengths to human caregivers and are likely to outperform them in given situations; however, although caring *for* and caring *about* can operate individually and collectively, the essence of the virtue of care incorporates both concepts connected as one (Marcum, 2012; Noddings, 2002). For this reason, the sort of care Lancaster refers to is one part of the care that I am focusing on in this dissertation, as opposed to the complete concept of care that I emphasise, namely good care or better known as the virtue of care.

I proceed to conclude by providing a summary of the main points featured in this chapter, followed by a brief overview of the content presented in the next chapter of this dissertation.

3.4 Conclusion

The essence of this chapter was based on the incapacity of carebots to truly care. I aimed at providing an understanding of how carebots are incapable of possessing the virtue and established that only humans hold the capacity to potentially possessing it. I indicated how the care provided by carebots is distinct from the virtue of care and that it fails to meet the requirements of the virtue of care. I indicated how humans generally meet these requirements, and how carebots fail. My key argument here is that carebots are not capable of caring in the same way that humans can, although they may act as though they care.

Carebots are progressively being introduced into different systems of care, making it important to understand the kind of care they can provide to determine whether any deterioration or restoration of current and forthcoming care practices and care standards are projected to occur or potentially occur. Carebots cannot truly experience and express emotions and cannot participate in meaningful social relations and understand or possess the same frailties as humans.

Human caregivers remains the better option in caring practices in spite of foreseen advances in AI. The absence of consciousness and emotions in carebots justifies questioning the purpose of potentially replacing human caregivers with such simulated agents that simply offer artifice in care. This chapter supports the idea that that virtue of care is reasonable to expect from human caregivers as the standard of care in healthcare contexts because this expectation of human caregivers is not too high, but rather reasonable as it ultimately requires caregivers to be entirely genuine in the care they provide.

The simulation of emotionality in carebots is also problematic in terms of potential deception within the realm of caregiving and is discussed in the subsequent chapter, which aims to illustrate aspects of dignity that are under threat in the era and context of robotic care from autonomous robots. The key arguments presented within the following chapter include the concern that deception from carebots undermine the care recipient’s dignity, and fails to foster their independence, adequately engage with them on an emotional level, as well as, induce feelings of objectification in care recipients.

4. DIGNITY IN THE HANDS OF HUMAN CAREGIVERS AND CAREBOTS

4.1 Introduction

The purpose of this chapter is to illustrate the aspects of dignity that are under threat and should be respected in the era and context of robotic care. The reason for this is that the undermined dignity of care recipients may result in their undermined well-being, which ties in with the overarching claim of this dissertation (Steyl, 2019). Undermined dignity and well-being suggests that the different needs of care recipients are not being met effectively, which also indicates that good care is not being delivered from their caregiver (Steyl, 2019; Zardiashvili & Fosch-Villaronga, 2020).

Given the significance of the virtue of care in human caregivers, it is essential to discuss its other key associated concepts, such as the dignity of care recipients. Evaluating the potential impact that carebots may have on dignity contributes toward determining whether carebots can provide ethically acceptable care for care recipients (Steyl, 2019). This is especially vital if carebots are found to provide depriving and degrading treatment that may strip care recipients of their dignity (Steyl, 2019). This makes ethical reflection vital to ensure that the design and deployment of the carebot into healthcare contexts do not impede any practices upholding the dignity of care recipients at such a vulnerable time in their lives (van Wynsberghe, 2016).

Three key claims on how carebots undermine human dignity are presented within this chapter. First, I argue in section 4.4 that deception from carebots would undermine the intrinsic dignity of care recipients (Sparrow & Sparrow, 2006). Second, I argue in section 4.5 that carebots would undermine the care recipient's intrinsic dignity by failing to properly foster their independence and adequately engage with them on an emotional level (Zardiashvili & Fosch-Villaronga, 2020). Third, I argue in section 4.6 that carebots would undermine the care recipient's subjective expressions of dignity by making them feel as though they are undeserving of authentic and genuine care or as though they are being treated as objects (Sharkey, 2013).

The previous chapter held the argument that carebots cannot care in the same way that humans can although they may act as though they care, which is a result of their lack of the virtue of care (Barcaro *et al.*, 2018; Steyl, 2019; Wachsmuth, 2018). In this chapter, I first discuss the two relevant and key concepts of dignity in terms of its relationship to care recipients. I also discuss the concept of dignity within healthcare, present my three key claims, followed by potential objections and counterarguments.

4.2 Dignity

Care recipients are often in positions that require submission towards caregivers in order to receive care, indicating vulnerability and ill-health, which may induce feelings of restriction that represent a loss of control over their environment by means of their emotional, physical and mental health (Jones, 2015). These limitations also challenge the care recipient's ability to recognise or articulate their own dignity overall (Jones, 2015).

Dignity fundamentally concerns some level of authority to be worthy of regard, it holds both the meriting of specific treatment by other individuals and the distinctive behaviours in its accordance (Jones, 2015). However, a lack of clarity exists in terms of established minimum standards for dignity, which appear to hinder recognising any quantifiable measures to indicate its presence or absence (Wainwright & Gallagher, 2008). Given that dignity is a multifaceted notion, it branches out into different sorts, such as inflorescent dignity, dignity of moral stature, dignity of merit, intrinsic dignity, and self-respect or subjective dignity (Jones, 2015).

Inflorescent dignity is attributed to individuals in degrees depending on the level of distinct qualities or excellences of character possessed and is directly proportional to the acquisition or loss of special qualities or excellences (Jones, 2015). The dignity of moral stature is also attributed to different degrees and is subjected to change depending on one's moral standing through character traits, actions, and omissions because of its association to a dignified character (Wainwright & Gallagher, 2008). Dignity of merit exists in degrees that may ebb and flow, and is based on holding certain roles, ranks or formal positions in society, which one may either be born into or earn through acts or achievements of merit unrelated to immoral means (Doris Schroeder, 2010; Wainwright & Gallagher, 2008).

Moreover, intrinsic dignity pertains to all human beings to the same extent and cannot be lost as long as the individual exists, translating to all human life being worthy of regard, irrespective of the presence of cognition or consciousness (Wainwright & Gallagher, 2008). Finally, subjective dignity can be related to the expectation of being treated with increased respect and is easily influenced by behaviour from others that may, for instance, infantilise, disrespect or demean them (Sharkey, 2013).

For the purpose of this dissertation, this chapter merely focuses on i) intrinsic dignity and ii) self-respect/subjective dignity because these are the two most commonly referred to forms of dignity in humanity and are most applicable to this dissertation's theme. The care recipient's intrinsic and subjective dignity are possibly under threat in the era and framework of robotic care within healthcare contexts.

4.2.1 Intrinsic dignity

Intrinsic dignity, also referred to as inviolable or universal dignity, serves as the base of universal human rights (Jones, 2015). Intrinsic dignity designates a value that exists prior to human attribution and can be defined as the dignity inherently ascribed to, and common among all humans, which is independent of the behaviour, beliefs/values, mental, physical and moral capacity or circumstances of the individual (Jones, 2015; Sharkey, 2013; Sulmasy, 2012). Intrinsic dignity warrants equal value to all human life by virtue of their mere existence and holds that it cannot be impacted or created by human choices or views, or any particular set of talents, skills or powers (Sharkey, 2013; Sulmasy, 2012; Wainwright & Gallagher, 2008). So, no care recipient may be treated with less value or regard than another in this sense, which embrace basic human rights (Kinnear *et al.*, 2014).

Intrinsic dignity does not attribute value to an entity based on biological, psychological, social, economic or political conditions because it holds value by virtue of its being, the kind of thing that it is (Sulmasy, 2012). This form of dignity also does not offer a platform for one to make judgements relevant to another's value or self-respect because everyone has been attributed the same sense of dignity and to the same degree (Wainwright & Gallagher, 2008). This allows caregivers of all sort, from professional, sub-professional, to layman, the ability to relate to or identify with care recipients based on this shared concept (Leget, 2013).

All human life is worthy of respect and preservation, which correlates to Article 1 of the Universal Declaration of Human Rights, which states, "All human beings are born free and equal in dignity and rights" (Leget, 2013). This inalienable, inherent worth of each individual demonstrates the pricelessness of a person through declaring that no equivalent substitute exists, thereby suggesting the inherent personhood of humans, and thus, their inherent dignity (Leget, 2013). Personhood entails the elevation of humans above any price or value, requiring that humans be treated as an end in themselves as opposed to a means to an end (Leget, 2013).

So, caregivers that turn a blind eye to all senses of dignity, except intrinsic dignity, make room for their common commitment to care for care recipients in manners that demonstrate sensitivity towards and cognizance of the care recipient's need (Wainwright & Gallagher, 2008). Only acknowledging intrinsic dignity challenges the caregiver's responsibility to care for human life equally, offering care to all, devoid of judgements (Wainwright & Gallagher, 2008). Contrary to intrinsic dignity, other senses of dignity allow for the acknowledgement and admiration of other's accomplishments, thereby offering a platform for one to make judgements relevant to another's value and deserved level of treatment or respect based on various factors, such as the care recipient's social standing or moral character (Wainwright & Gallagher, 2008).

Similarly, although Nussbaum's Capabilities Approach (CA) for dignity is not focused on in this chapter, it is interesting to note that it presents an interpretation of dignity that is connected to dignity and human rights by means of prerequisites for a life worthy of dignity (Sharkey, 2013). The CA places emphasis on a set of 10 central opportunities available to individuals through freedom of choice, demonstrating what individuals can be and do when a threshold level is achieved within each capability, thereby fulfilling the basics of a life worthy of dignity (Sharkey, 2013). The capabilities include life; bodily health; bodily integrity; senses, imagination and thought; emotions; practical reasoning; affiliation; other species; play; and control over one's environment (Sharkey, 2013).

This approach is applicable to all human beings and expresses the relationship between dignity and human rights, irrespective of irrationality, minimal human agency, physical disability or any other factor (Sharkey, 2013). Below, another key form of dignity is expanded on, namely subjectively experienced dignity, which is the second form of dignity focused on in this section. Both senses of dignity play an important role within the key arguments laid down later in this chapter.

4.2.2 The subjective experience of dignity/self-respect

Subjectively experienced dignity implies respect for one's autonomy and entitlement to hold one's own beliefs, attitudes, ideas and feelings without being devalued through degrading or humiliating treatment (Leget, 2013). The experience of one's own dignity is linked to one's self-respect, which can be either strengthening or weakening (Leget, 2013). Various sorts of interactions experienced by care recipients may play a crucial role in the realisation of their dignity, either to a higher or lower level (Leget, 2013). Although their inalienable status remains, care recipients may be handled worse than the basic minimum entailed by human dignity and human rights or treated in manners that disrespect their dignity, thereby creating a sense of lacked self-respect within the care recipients personal experience (Laitinen *et al.*, 2019).

Nordenfelt (2004) describes subjective dignity as a sense of dignity that is focused on self-respect and attributed by oneself through identifying with a certain level of integrity and autonomy (Sharkey, 2013). This sense of dignity can be negatively influenced by external factors, such as injury, ill health, old age, and the behaviour of others by means of humiliation, insolent treatment or objectification where one is treated as an object (Sharkey, 2013). For example, physical and mental illnesses often have the effect of involuntarily changing or spoiling one's identity because one's self-perception and self-conception is altered and defined by the mere illness (Wainwright & Gallagher, 2008).

Subjective dignity can also be taken away from an individual through the negative impact of certain external factors because these factors may interfere with the individual's integrity and autonomy, potentially resulting in an emotional state of dishonour or loss of self-respect (Sharkey, 2013). This is because one feels as though he/she is less worthy and so, in comparison, different from who or what one once was, entailing that subjective dignity resides in the ability of the individual to maintain their personal identity or self-concept after infringement thereof (Wainwright & Gallagher, 2008). Additionally, one's subjective experience of dignity may also be effected through humiliation brought upon by acts of immorality, which may in turn, induce feelings of worthlessness and shame (Wainwright & Gallagher, 2008). Any individual who reveals themselves as immoral in any way may be instantly disgraced by those in their environment, thereby causing the individual to feel a sense of threat in losing their self-respect and stand in dignity (Wainwright & Gallagher, 2008).

Furthermore, allowing care recipients to feel in control of their immediate environment by expressing their own idea of self-respect is not merely related to respecting the independence or autonomy of the care recipient, but also, the care recipient's subjective inner expressions of dignity, which are manifested through their behaviours (Jones, 2015). This does not entail that dignity is identified with or attributed to autonomy or capacity, but rather that their expressions or manifestations of self-respect and dignity should be acknowledged and encouraged by the caregiver through allowing care recipients to feel in control of their immediate environment (Jones, 2015). This is because failure to do so serves as an injustice towards care recipients as concern for their dignity is not merely based on respect for preferences in the process of care or cultivating opportunities for eudaimonia, it is also about the overall acknowledgement of the care recipient's human dignity and respect owed to them as a human being (Jones, 2015).

Complications with this sense of dignity arise as an individual's self-perception can be deceitful or not shared by their surrounding environment, which may result in societal attempts to adjust or correct this self-interpretation (Leget, 2013). Another issue with subjectively experienced dignity is that it holds connections to the other forms of dignity by means of one's understanding of the notion itself (Leget, 2013). This is because self-judgement is grounded on the background of a cultural horizon in terms of self-interpretation, thereby achieving one's own notion of dignity during one's lifetime (Leget, 2013). A key disadvantage of fully accepting this account of dignity is the fact that all humans are inevitably open to impermanent mental or physical states, either through, for example, old-age, ill-health, injury or genetic inheritances, translating to the inevitable possibility of losing one's dignity or identity (Wainwright & Gallagher, 2008).

Since all individuals are generally dependent on one another, tightly associating the care recipient's dignity with their independence to carry out tasks or abilities disguises the reality of human dependence (Jones, 2015). Humans hold an innate impetus to associate with and depend on each other (Jones, 2015). However, disability and dependence are generally associated with a loss of dignity or self-respect, and a loss of respect from others (Jones, 2015). Associating disability and dependence with a loss of dignity and respect entails a moral failure because all humans, including caregivers and care recipients, are susceptible to disability, dependence on others, and other human conditions causing a state of vulnerability or frailty at some point in their lives (Jones, 2015).

In this section and the previous one, I have discussed intrinsic dignity and subjective dignity/self-respect in order to provide a clear understanding of the two key forms of dignity for this dissertation. Following this, I move on to discussing dignity in relation to care. Both intrinsic dignity and subjective dignity/self-respect are interwoven into the fabric of dignified care, which hold the potential to allow the care recipient's dignity to flourish within healthcare contexts. Understanding how carebots fail to protect and support human dignity within care contexts reveal how they may undermine it due to their incapability for the virtue of care. This, then portrays how merely virtuous human caregivers are capable of protecting and supporting human dignity. Below, I discuss how dignity may generally be upheld, furthered or fostered in healthcare contexts.

4.3 Dignity in care

Dignity is often considered the backbone of care that underpins the key roles of caregivers (Kinnear *et al.*, 2014; Smith-Morris, 2018). Maintaining one's dignity while under the care of a caregiver is of paramount importance to care recipients and treating them in a dignified manner, which may positively influence their treatment and social outcomes (Kinnear *et al.*, 2014). The notion of care within the healthcare context is sculpted on a foundation of attending to the needs of care recipients and is linked to acknowledging and respecting a care recipients intrinsic dignity or subjective inner expressions of dignity through expressing various signs and actions (Jones, 2015).

Although respect may be expressed differently, virtuous caregivers would aspire to show respect for the care recipient's dignity in an honourable sense through providing the platform for them to voice their needs, followed by the venture to listen attentively and attend to their voiced needs (Jones, 2015). Virtuous caregivers would also aspire to conduct themselves through dignified motives that drive actions and choices from genuine affectionate, sympathetic and empathetic emotional responses towards the experiences, needs, feelings, and suffering of care recipients (Smith-Morris, 2018; Wachsmuth, 2018). This entails that there is a sufficient capacity for true caring, deep feelings and reciprocity of feelings, rather than simulated expressions of care (Wachsmuth, 2018). Reciprocity occurs between the caregiver and care recipient in real-time by verbal and non-verbal cues (Sharkey, 2013).

A large body of research reveals that according to care recipients, factors such as respect, privacy, communication and being treated as an individual form part of the significant aspects of receiving care in a dignified manner (Kinnear *et al.*, 2014). From a caregiver's frame of reference, this would implicate delivering care that is centred on and actively engages care recipients, promotes their individual identity, independence and autonomy, engenders respect and effective communication, and is overall holistic (Kinnear *et al.*, 2014). The proper delivery of care that considers and upholds dignity is often influenced by the attitudes, skills, and behaviour of caregivers, as well as educational, cultural, and organisational factors that may enable or hinder the delivery process (Kinnear *et al.*, 2014).

Generally, dignified care in the health context requires professional and sub-professional caregivers to respect all lives as per their professional ethics and by common morality because of the widespread consensus that all human life holds the same degree of dignity (Sharkey, 2013; Wainwright & Gallagher, 2008). As for layman caregivers, common morality also requires them to respect all human life equally, regardless of any conditions that a care recipient may suffer from (Wainwright & Gallagher, 2008).

One study executed by Baillie *et al* (2009) identified that care recipients feeling valued, in control, and comfortable devoid of embarrassment throughout their course of being cared-for, contributed to an enhanced sense of wellbeing and respect for dignity (Kinnear *et al.*, 2014). According to Cairns *et al* (2013), caregivers are likely to perceive or define dignified care in terms of certain components of their relationships with care recipients (Kinnear *et al.*, 2014). Key elements of such caregiver and care recipient relationship include, most importantly, the care recipient being treated as an individual, followed by being able to maintain their privacy, feeling respected and involved in decision-making (Cairns *et al.,* 2013; Kinnear *et al.*, 2014). This study also revealed that other components of dignified care such as physical caring tasks or actions, for example, assisting care recipients to bathe, dress, eat or take medication, were insignificant as compared to the key components (Cairns *et al.,* 2013; Kinnear *et al.*, 2014).

In addition to the perceptions of what dignified care entails for care recipients and caregivers, for caregivers to successfully deliver dignified care devoid of breaches, it is essential to also entirely grasp a professional and humane understanding of dignity through the care virtue (Kinnear *et al.*, 2014). Dignified care can be understood as care that is strongly centred on the care recipient and focuses on more than merely recognising and responding to their needs and preferences to better empower them and support their independence (Sharkey, 2013; Wainwright & Gallagher, 2008).

A threat to the widespread notion that all human life holds the same degree of dignity are caregivers who lack the virtue of care because they may violate the care recipient's dignity through different perceptions of dignity (Jones, 2015). These different potential perceptions contain the view that various care recipients possess different levels of human dignity, or none at all, depending on the caregiver's judgement alone (Jones, 2015). This exemplifies a moral failure, which is later expanded on.

This patient-centred care is not merely a product of dignified care, but is also produced by moral agency since only moral entities can serve as carriers of moral obligations towards others (Sharkey, 2013; Wainwright & Gallagher, 2008). Since carebots are not moral agents and are unable to provide dignified care through the virtue of care, they would be unable to provide patient-centred care by addressing the individualised physical and emotional needs of care recipients (Sharkey, 2013; Wainwright & Gallagher, 2008; Yew, 2020).

Carebots would be unable to truly understand the essence of treating a care recipient as an end in itself and would, therefore, lack the capacity to act so (Yew, 2020). This universal principle cannot be captured by AI algorithms (Yew, 2020). Carebot would have to first identify the objectives of their own acts, evaluate other moral entities attempting to attain the same objectives through like manners in comparable scenarios, and lastly, comprehend human psychology, all of which they are entirely unequipped for and incapable of (Yew, 2020).

Dignified care from human caregivers offers care recipients the potential to experience the virtue of care, supporting and reciprocating true emotion devoid of deception and insolence towards the care recipient’s self-respect/subjective expressions of dignity (Wainwright & Gallagher, 2008; Sharkey, 2013). This enables the experience and exchange of friendly affection, sympathy and empathy between the care recipient and caregiver (Wainwright & Gallagher, 2008; Sharkey, 2013; Steyl, 2019). This also involve caregivers acknowledging the inherent value of their care recipient, which is independent from their behaviour, beliefs/values, mental, physical and moral capacity or circumstances (Jones, 2015; Sharkey, 2013). Dignified care also promotes respect for the autonomy and entitlement of the care recipient where they may hold and express personal beliefs, attitudes, ideas and feelings without feeling devalued through insolent and humiliating treatment (Leget, 2013).

In one manner, dignified care supports the self-respect of care recipients by assuring them of the true and genuine care that they are worthy of without carrying out any behaviour or actions that resemble or endorse the objectification of care recipients (Cairns *et al.*, 2013; Kinnear *et al.*, 2014). Dignified care also allows caregivers to foster the independence of care recipients and adequately engage with them on a deep emotional level of guilelessness, thereby recognising and embracing their dignity (Cairns *et al.*, 2013; Kinnear *et al.*, 2014).

However, it is important to note that not all human caregivers would be able to offer care recipients the potential to experience genuine care, emotional reciprocity (friendly affection, sympathy and empathy), and adequacy in having their needs met because not all human caregivers are virtuous. Rather, all human caregivers have a similarity in being able to possess the virtue of care or true moral-emotional capabilities, whereas carebots of the foreseeable future can merely simulate such, failing to truly possess even the potential thereof (Coeckelbergh, 2010).

Again, although the CA for dignity is not focused on in this chapter, some of its components overlap with the two key senses of dignity of this dissertation, namely intrinsic and subjective dignity. In terms of Nussbaum's CA, a dignified life is one where an individual achieves a threshold level of the 10 central capabilities afore-mentioned (Sharkey, 2013). That is, life; bodily health; bodily integrity; senses, imagination and thought; emotions; practical reasoning; affiliation; other species; play; and control over one's environment (Sharkey, 2013). The intersections between the CA and intrinsic dignity are most evident with the central capabilities of life, bodily health and bodily integrity, while the intersections with subjective dignity are most evident with the central capabilities of control over one's environment, bodily integrity, bodily health, imagination, thought and emotions.

Interestingly, these intersections from a dignified life may also bring about progressive and respectable care through connections to intrinsic and subjective dignity, which may shine light on the potential for improved access to some central capabilities of the care recipient, thereby approaching dignified care. The likely impact of carebots on the dignity of care recipients appear generally positive as carebots may increase a care recipient's access to some central capabilities (Sharkey, 2013). When considering care recipients that are vulnerable through physical limitations, such as disability, injury or fragility, carebots could improve their "bodily integrity" through increasing their ability to move from place to place (Sharkey, 2013). As a result, this may then improve the care recipients control over their environment since the carebot may be used as a means for mobility.

In this section, I have discussed the concept of dignity in care in order to provide clarity on how dignity may generally be upheld, furthered or fostered in healthcare contexts. The following section concerning potential deception from carebots addresses the first of the three key arguments presented in this chapter, illustrating aspects of dignity that are under threat within the era of robotic care and through what means this threat occurs. This highlights the importance of reconsidering and re-evaluating carebot implementation, as well as, potentially developing or amending relevant policies to uphold human dignity through care.

4.4 Deception and dignity

This section addresses the concern that deception from carebots may undermine, deny or fail to respect or regard the dignity of care recipients (Coeckelbergh, 2012; Sparrow & Sparrow, 2006; Wachsmuth, 2018). The deception between the carebot and the care recipient presents at the point of caretaking or rather, the lack of true caring, which results from the absence of the virtue of care (Sharkey & Sharkey, 2012; Torresen, 2018). This arises as carebots act as though they care through care tasks, emotional simulation and synthetic companionship, in which some care recipients may falsely believe that they could develop some sort of relationship with the carebot (Sharkey & Sharkey, 2012; Torresen, 2018).

Although an exhaustive conceptual analysis of the phases of care and needs fit outside the scope of this chapter, a brief overview thereof is helpful in understanding the connection between care delivered by carebots and the potential accompanying deceit and erosion of the care recipient's dignity (Sharkey, 2013; Sparrow & Sparrow, 2006).

The phases of care that a carebot would need to achieve include identifying an existing need through attentiveness, assuming responsibility to address the particular need, possessing the capability to take relevant action(s) to meet the need, and appraising the effectiveness of the overall care provided through reciprocity of effective communication (van Wynsberghe, 2016). Both elements of attentiveness and responsiveness are significant human domains (Sharkey, 2013). These phases of care uncover the emotional incapacity of carebots related to the absence of the virtue of care, causing them to unsuccessfully fulfil the set criterion of good care by default (Sharkey, 2013; Sparrow & Sparrow, 2006).

As carebots can merely simulate human emotions, they also pave way for deceit to occur by potentially leading care recipients to inaccurately apprehend the world, which alludes to a moral failure (Sharkey & Sharkey, 2012; Sparrow & Sparrow, 2006; Torresen, 2018). This moral failure undermines human dignity because human well-being is not served by deception, delusion or separation from reality (Sharkey & Sharkey, 2012; Sparrow & Sparrow, 2006; Torresen, 2018).

This potential deceit is based on misconceptions of the emotional components of care from the care recipients perspective, namely that affection, sympathy and empathy are being experienced or exercised by the carebot during the process of responding to their unmet need(s) (Sparrow & Sparrow, 2006). Sparrow and Sparrow (2006) support this through their argument that using carebots to provide emotional care and companionship for care recipients could mislead them into believing that they can have some sort of a relationship with the carebot.

Given the reciprocal nature of a caring relationship, false impressions of genuine care and feelings may be induced amongst care recipients through the unrealistic projected emotions of carebots (Sharkey & Sharkey, 2012; Torresen, 2018). Carebot algorithms for building care relationships fail because care recipients require customised care, which can only be adequately achieved through human caregivers as the relationship between caregivers and care recipients requires constant refining to accommodate their capricious needs (Sharkey & Sharkey, 2012; van Wynsberghe, 2016).

While social relations are marked by reciprocity, relations with carebots are, neither mutual nor symmetric (Fiske *et al.*, 2019). Consequently, if care recipients develop an insincere synthetic connection with carebots, this may affect their human-to-human relationships, their agency, identity and self-consciousness, extending in manners from health reductionism to intrusions on human comprehension of what it means to be human (Fiske *et al.*, 2019; Zardiashvili & Fosch-Villaronga, 2020).

Additionally, any form of attachment to carebots entail deceit, and this potential deception, whether conscious or unconscious, may also impede informed decisions (Sparrow & Sparrow, 2006). This may arise from either an underestimation or overestimation of the carebot’s capabilities, such as care recipients having confidence in the carebots anticipated capacity to genuinely care for them (Feil-Seifer & Matarić, 2011; Sparrow & Sparrow, 2006). During the period of being under robotic care, deception may persist until care recipients become familiar with and thoroughly understand the capabilities of carebots (Feil-Seifer & Matarić, 2011; Sharkey, 2014). This is because care recipients are in a state of vulnerability as they seek care and relief from unmet needs or distress (Feil-Seifer & Matarić, 2011; Sharkey, 2014).

As a result, their state of vulnerability may falsely lead them to believe that the carebot truly cares for them, which may then harm their dignity (Parks, 2010; Sharkey & Sharkey, 2012; Torresen, 2018). The carebot poses a threat in possibly interfering with the care recipients establishment of trust and bonds (van Wynsberghe, 2016). In some cases, loved-ones of care recipients might feel that a loss of dignity and some form of humiliation would occur upon witnessing ongoing interactions of the care recipient with carebots, that is, the sight of such interactions as if they were real might reduce the appearance of dignity in the eyes of the witness (Sharkey, 2013).

Conversely, some care recipients may be aware that carebots do not genuinely care or act caringly from intrinsic motivation, which may then induce feelings of inattention as their emotional needs would be disregarded, thereby harming their health and well-being (Pearce *et al.,* 2012). This is particularly true for their psychological health (Pearce *et al.,* 2012). Neglected care recipients might also engage in interactions with carebots, attempting to build some connection with them, but would feel humiliated as a result because of their awareness of the limitations of carebots (Sharkey, 2013).

The care recipient desires honest care and companionship, not simply the idea of being cared about as these beliefs are false (Coeckelbergh, 2012; Wachsmuth, 2018). Contrastingly, this is precisely what is absent from the carebot's set of capabilities in conjunction with its incapacity to possess the virtue of care (van Wynsberghe, 2016). Carebots offer a platform for fraudulent emotional interaction where care recipients may falsely mistake one-way emotional affectivity as mutual, resulting in potential deception (Laitinen *et al.*, 2019).

The harmful emotional consequences that may arise from such deception are bothersome especially for care recipients such as children and demented elders, who may be unaware of the quality of their interactions (Laitinen *et al.*, 2019). An exception can be made for care recipients incapable of or lacking the intention to participate in this sort of reciprocity, for example, unconscious individuals that are coma-induced, infants, and other similar cases because they cannot engage in such interactions at a certain point or period of time in their lives (van Wynsberghe, 2016).

Since this potential deception stems from the carebot's simulations of human emotions, their mirage of responses to the feelings and suffering of care recipients are devoid of any intrinsic motivation, authentic emotional involvement and expression, and emotional reciprocity (Sharkey & Sharkey, 2012; Torresen, 2018; Wachsmuth, 2018). This shallow care merely involves physical assistance through acts of care, computer-generated companionship, and the false manifestation and engagement of human emotions (Sparrow & Sparrow, 2006; Baer, 2015; Smith-Morris, 2018).

Caregivers experiencing and reciprocating emotions are intertwined with their thought processes and actions required to successfully comprehend and address their needs (van

Wynsberghe, 2016). This interrelatedness suggests that true care is a multi-faceted set of activities and emotions, rather than exclusively one or the other as true caring extends beyond simple action-based caring in typical care contexts (van Wynsberghe, 2016).

For this reason, should human caregivers be replaced with carebots, the quality of care would be measured by more than their mere level of efficiency. This is because a set criterion ensuring that care recipients receive care devoid of potential deceit would need to be met before carebots can be ethically accepted as part of caring practices (van Wynsberghe, 2016).

So, even if some care recipients are aware of this false care from carebots and may accept it, genuine care is still ethically essential in the promotion/provision of good healthcare (Coeckelbergh, 2012). This is further established through the final key argument in section 4.5, where it is argued that inadequate emotional engagement demoralises the subjective dignity of care recipients, resulting in feelings of objectification and unworthiness of true care (Sharkey, 2013).

Since deception harms dignity, the use or implementation of carebots ought to genuinely benefit the care recipient by, for example, meeting the needs of care recipients to a satisfactory level and contributing towards character development through the reciprocity of the relationship between the two parties (Sharkey & Sharkey, 2012). However, because this cannot be accomplished by carebots given their emotional and social inadequacies and incomprehension of human frailties, care recipients cannot genuinely benefit from carebots in ways that appropriately meet their needs (Sharkey & Sharkey, 2012).

Deception from carebots entails their incapacity to adequately engage with care recipients on an emotional level and fail to foster their independence properly, thereby possibly undermining and disrespecting their intrinsic dignity (Sparrow & Sparrow, 2006; Sharkey, 2013; Zardiashvili & Fosch-Villaronga, 2020). Hence, the subsequent key argument on inadequate emotional engagement and uncultivated independence builds on from the first regarding the potential deception from carebots (Sharkey & Sharkey, 2012; Torresen, 2018).

In this section, I have discussed how the potential deception from carebots may undermine the dignity of care recipients. My key argument is that vulnerable care recipients may be deceived into thinking that carebots truly care for them and that they may have some sort of caring relation with carebots. I now proceed to presenting my second key concerning emotional disengagement from carebots and how this undermines the care recipient’s dignity.

4.5 Emotional disengagement and dignity

This section addresses the concern that carebots would undermine care recipients intrinsic dignity by failing to properly foster their independence and adequately engage with them on an emotional level (Zardiashvili & Fosch-Villaronga, 2020). It is known that all humans possess intrinsic dignity merely by being human, regardless of distinct cases where some individuals lack the mental or physical capacity to maintain their dignity independently (Sharkey, 2013). Although intrinsic dignity is timeless, some forms of treatment are inconsistent with this inherent worth, thereby possibly undermining or jeopardising it (Zardiashvili & Fosch-Villaronga, 2020).

Given the inability of carebots to adequately engage with care recipients on an emotional level, they risk dehumanising care practices by eliminating the ‘human’ element from care (Zardiashvili & Fosch-Villaronga, 2020). As a result, this increases and intensifies the care recipients risk of loneliness by diminishing human-to-human contact, depriving emotional needs, and suppressing their independence, especially during the process of receiving care (Zardiashvili & Fosch-Villaronga, 2020).

The incapacity of carebots to comprehend human frailties trails from their absence of both human consciousness and emotions, inhibiting any genuine emotional and social engagement with care recipients (Yew, 2020). For this reason, all acts of care from carebots are mere simulations of human emotions through emotional computing, thereby giving the illusion that they are able to respond to the needs of care recipients (Yew, 2020). This may also be referred to as shallow care as these manual care tasks or activities executed by carebots are devoid of all emotional, intimate and personal engagement (Borenstein & Pearson, 2010).

Examples of such tasks include carebots bathing, feeding, giving medicine to, transporting, taking the temperature of care recipients and so on (Laitinen *et al.,* 2019). Even in cases where carebots utilise their advanced ability to identify conversational cadences and mimic human dialogue to provide care recipients with synthetic companionship through natural-language processing (NLP) within AI’s machine-learning, their simulated communication remains devoid of all emotional, intimate and personal engagement (Aknin, 2015; Adamopoulou & Moussiades, 2020; Borenstein & Pearson, 2010).

Regardless of the carebots ability to discover, translate, extract, and store new patterns in data without any prior information or training to produce relevant reactions to spoken or written prompts, which are inspired by the human brain, carebots cannot evolve into emotional entities themselves (Adamopoulou & Moussiades, 2020; Coeckelbergh, 2010). Carebots cannot listen effectively to the care recipient's voiced needs to accurately decipher the qualitative data and open-ended responses, especially with care recipients who struggle to verbally express themselves (Jones, 2015).

Carebots lack consciousness and emotions, and so, require ready-made cognitive packages built into their systems or algorithms known as neural networks to allow for the imitation of human dialogue perfected with imitated human emotions (Adamopoulou & Moussiades, 2020; Coeckelbergh, 2010).

Because of this, their shallow care comprised of synthetic companionship and mere physical tasks and/or activities of caretaking fails to amount to genuine caretaking, as they cannot meet standard basic conditions for having emotions (Coeckelbergh, 2010). True emotions, such as empathy, sympathy and affection are absent, which are not only deep human needs, but also, a key element in allowing care recipients to feel emotionally cared-about (Laitinen *et al.*, 2019). Carebots are incapable of mentally transitioning themselves into imagining the true experience of another individual's situation (Laitinen *et al.*, 2019).

Emotions are a defining element of the human condition since humans are, by nature, social beings with an innate emotional need to belong (Laitinen *et al.*, 2019; Vallor, 2011). So, the absence of genuine emotional interaction from carebots would undermine the dignity of care recipients as exclusive robotic care would amount to the complete neglect of their emotional needs or shortfall in being met (Vallor, 2011). Carebots would deprive care recipients of receiving care within an emotional and social environment to meet their needs, which would be detrimental to their physical and mental health, thereby undermining or failing to facilitate their human intrinsic dignity (Laitinen *et al.*, 2019; Vallor, 2011).

Distinct human emotional needs that allow emotive vulnerability to occur, which cannot be fulfilled by carebots include the care recipient's need for emotional affirmation and emotional recognition as unique individuals living in sovereignty (Laitinen *et al.*, 2019). One form of misrecognition of individual uniqueness for care recipients involves the provision of standardised treatment and care through a one-size-fits-all approach, dismissing individual features, preferences and desires in relation to particular needs (Laitinen *et al.*, 2019). This lack of social and emotional engagement not only compromises human intrinsic dignity through promoting decreased human-to-human contact, but may also, intensify the care recipient’s risk of loneliness within healthcare settings and increases dependency on carebots (Laitinen *et al.*, 2019; Zardiashvili & Fosch-Villaronga, 2020).

The ability to experience and respond to emotions is only truly present in evolved biological entities that possess the same limitations and frailties as humans because human caregivers can manifest a range of emotional involvement in response to a need or difficulty of the care recipient (Sparrow & Sparrow, 2009). Carebots have rather been designed to act as though they care through emotional computing as a manner of convenience for caretaking practices within healthcare settings (Coeckelbergh, 2012; Wachsmuth, 2018).

Carebots are incapable of truly grasping the essence of the universal principle to treat an individual as an end in itself and therefore, lack the ability to do so (Yew, 2020). Accordingly, carebots would fail to properly recognise care recipients as vulnerable beings with physical, emotional and social needs, as likely autonomous entities with agency, and as rational subjects of experience, feeling and thought (Laitinen *et al.*, 2019). This is because carebots cannot recognise the objectives of their own acts, cannot assess the means or conducts of others attempting to attain the same objectives in comparable situations, and cannot grasp human psychology (Laitinen *et al.,* 2019; Yew, 2020).

The case against carebots inadequately fostering the independence of care recipients refers to the potential dependency on them possibly ensuing from care recipients experiencing sensations of lost control over their environment (Laitinen *et al.*, 2019; Yew, 2020). Since human beings are born dependent, the likelihood of returning to a state of dependency exists through the vulnerability of ageing, long-term or short-term impairment and ill-health (Parks, 2010). As care recipients seek care and relief from their suffering and unmet needs, a state of vulnerability is certain (Feil-Seifer & Matarić, 2011; Parks, 2010; Sharkey, 2014). However, the concern resides in the potential for care recipients to build an over-reliance on carebots during their period of being under the care of carebots and also, might suffer from over-attachment to them (Yew, 2020).

This concern is demonstrated in common cases where children separated from their robot companions exhibited suffering through distress and grief (Yew, 2020). Long-term effects of the over-reliance or attachment to carebots from children may hamper the development of their interactive abilities, especially when human guidance is absent since caregiving teaches elements such as reciprocity and empathy (Yew, 2020). This single illustration revealing the likelihood for over-reliance or attachment to carebots is not limited to children, but all vulnerable beings, although to different extents.

In some cases, vulnerable adult care recipients may impede the improvement of their own state of health or well-being through negating to fulfil or act on something independently (Yew, 2020). Humans have long displayed an inclination towards attaching to inanimate objects or entities, such as robotic systems, which will only further and progressively complicate human relationships with intelligent and autonomous devices (Fiske *et al.*, 2019).

Given the carebot's inadequate capacity to emotionally engage with or cultivate the independence of care recipients, they may possibly begin to feel degraded to the status of a mere object undeserving of sincere human care, thereby undermining their subjective dignity (Zardiashvili & Fosch-Villaronga, 2020). The subsequent claim centres on the demoralisation of the care recipient's subjective dignity through inadequate emotional engagement from carebots, causing potential feelings of objectification and unworthiness of true care amongst care recipients (Sharkey, 2013).

This key claim extends from the previous regarding the potential demoralisation of and disrespect towards the care recipient's intrinsic dignity (Zardiashvili & Fosch-Villaronga, 2020). Hence, both these key arguments initiate from the potential deception of carebots (Coeckelbergh, 2012; Sparrow & Sparrow, 2006; Wachsmuth, 2018).

In this section I have argued that carebots would undermine the care recipient's intrinsic dignity by failing to properly foster their independence and adequately engage with them on an emotional level. This is because treatment from carebots are inconsistent with their inherent worth, which may jeopardise their dignity by dehumanising care practices. Care recipients may have their emotional needs, independence and sociality deprived.

4.6 Objectification and dignity

This section addresses the concern that carebots may undermine the self-respect of care recipients by making them feel as though they are undeserving of "true/genuine care" or as though they are being treated as objects (Sharkey, 2013). The implementation of carebots as a replacement for human caregivers ought not to be for the mere reason of reducing the care burden on caregivers as this would lead to objectifying care recipients while disregarding their needs and right to be respected in their autonomy and dignity (Sharkey & Sharkey, 2012). A sense of lost autonomy and dignity indicates a sense of lost freedom of choice and also portrays that care recipients are simply considered as an end to a need, rather than ends in themselves (Sharkey & Sharkey, 2012).

Objectification entails treating an individual as though they lack autonomy or self-determination (Nussbaum, 2009). Carebots risk objectifying care recipients by challenging their autonomy or failing to empower it in cases that infringe or disregard their privacy and consent, and involve manipulation and coercion (Vandemeulebroucke *et al.*, 2018). In robotic care, assistance and monitoring can subtly transform into manipulation and coercion, which risks endorsing the potential objectification of care recipients (Fiske *et al.*, 2019). Carebots would also be incapable of truly respecting care recipients for making their own decisions, encourage participation in decisions around their own care, offer individualised care related advice and overall stimulating a sense of purpose in all aspects of care (Sharkey, 2013).

As carebots fulfil their assistive duties during the process of care, they could negatively impact or undermine the care recipient's subjective inner expressions of dignity in ways like not obtaining permission from the care recipient before executing certain actions (Sharkey, 2013). An example of this would be when carebots attempt to move, lift or transport care recipients as if they are objects of some sort, mirroring the image of a child-like interaction in manner (Sharkey, 2013). Another example includes cases where an intellectually disabled care recipient fails to comprehend the essence and use of carebots, thereby failing to empower their autonomy through their inability to provide full informed consent (Vandemeulebroucke *et al.*, 2018). Carebots may also offend the subjective dignity of care recipients, especially adult and elderly care recipients, if they interact with them in an impartial manner and address them objectively (Sharkey, 2013).

Carebots would also miss or inaccurately pick up on non-verbal cues of the care recipient, which would then lower the quality and accuracy of addressing needs (van Wynsberghe, 2016). This potentially makes care recipients feel unworthy of receiving true care, encompassing emotional needs. So, carebots could negatively impact the self-conception or subjective dignity of the care recipient for a time period, depending on the ability of the care recipient to maintain his/her initial image of identity or self-concept after feeling undermined through humiliation and/or disrespect during the process of receiving care or treatment (Sharkey, 2013).

Although carebots may not exhibit the negative aspects of human behaviour, they remain poor substitutes for human company and are incapable of true compassion and empathy or understanding (Sharkey, 2013). Also, the replacement of human caregivers with carebots might result in a reduced amount of social contact experienced by care recipients during the process of their care or the process of needs being met (Sparrow & Sparrow, 2006). This might also result in the failed assumption that the care recipient's need for human-to-human interaction can be met through utilising the companion skills of the carebot, which also removes the freedom of choice from the care recipient, thereby disrespecting the care-receipt's autonomy and self-respect or subjective dignity (Sparrow & Sparrow, 2006).

Diminished human-to-human contact then increases and intensifies the risk of loneliness amongst care recipients by increasing dependency on carebots, and inducing potential negative effects on their identity, agency and self-consciousness (Zardiashvili & Fosch-Villaronga, 2020). Being human involves at least two features, namely identity and community. The former involves the perception of an independent and distinguishable individual capable of making choice, while the latter involves the perception of an individual contained within an interconnected network of people caring for one another (White & Parotto, 2019). So, if a facet of the community feature is removed, the dehumanisation of care practices risks challenging the legal concept of dignity (White & Parotto, 2019).

However, the diminished level of human contact that care recipients may experience might intrude on some of their abilities in terms of emotions and affiliation (Sharkey, 2013). A life unacceptably impoverished is equivalent to one without human companionship, hence a socially isolated life, which is also known to have serious negative health implications (Sharkey, 2013).

Since emotions refer to the ability to fulfil emotional development and connect to things and people beyond oneself, the diminished level of human contact would allow for connections with carebots, which may be linked back to potential deceit as these connections would be false (Sharkey, 2013). This also entails that the emotional capabilities of the care recipient would not be given the chance for utilisation or application to its capacity (Sharkey, 2013).

Similarly, as affiliation refers to the ability to participate in various forms of social interaction, to treat others with equal value, and be treated with equal value, the care process taken over by carebots would not allow for the care recipients and carebots to treat one another with the same value (Sharkey, 2013). This unequal relationship of reciprocity is due to carebots not being capable of understanding the concept of value or worth, let alone the concept of true caretaking. Carebots are also incapable of being sensitive towards demonstrating respect in an honourable or culturally specific way while still acknowledging or bearing witness to the dignity of the care recipient (Jones, 2015).

Having carebots act as though they care is much like treating people as mere organisms because only their physical needs would be met, rather than their emotional needs (Baer, 2015; Sinclair *et al.*, 2018). This risks dehumanising care practices since dignity as a value entails that care recipients cannot be treated like objects, especially because human-to-human care often involves the transference of emotions, thoughts, and feelings between the care recipient and caregiver (Baer, 2015; Dworkin 2011; Sinclair *et al.*, 2018). The dehumanisation of healthcare practices suggests treating care recipients as though they lack the mental capacities that usual rational and healthy individuals relish (White & Parotto, 2019).

Likewise, research has suggested that such transferences might occur towards carebots, which ties into the previous two key arguments concerning the carebots inadequacy to emotionally engage with care recipient and potential deception in having care recipients believe they may have a reciprocal relationship with carebots (Sparrow & Sparrow, 2006; Wachsmuth, 2018; White & Parotto, 2019; Zardiashvili & Fosch-Villaronga, 2020).

Given that carebots of the near future can merely simulate emotional capabilities, they would also fail at processing emotional transferences and threaten the subjective dignity of care recipients, making the human element in care even more vital (Coeckelbergh, 2010; Fiske *et al.*, 2019; White & Parotto, 2019).

In this section, I have argued that carebots may undermine the self-respect of care recipients by making them feel as though they are undeserving of “true/genuine care” or as though they are being treated as objects. This disregards their needs and right to be respected in their autonomy and dignity, which portrays that care recipients are simply considered as an end to a need, rather than ends in themselves.

The following section provides a summary of the presented content above, which includes briefly digesting the three key arguments presented above to demonstrate how each one of the three ties into the other.

4.7 Potential objections

Several apparent plausible claims exist for replacing human caregivers with carebots within healthcare contexts, which serve as potential objections to arguments against this idea. This section addresses relevant key objections to the three arguments made above, which include the concern that i) deception from carebots would undermine the dignity of care recipients (Sparrow & Sparrow, 2006). ii) Carebots would undermine the care recipient's intrinsic dignity by failing to properly foster their independence and adequately engage with them on an emotional level (Zardiashvili & Fosch-Villaronga, 2020). iii) Carebots would undermine the care recipient's subjective expressions of dignity by making them feel as though they are undeserving of authentic and genuine care, ensuing feelings of objectification (Sharkey, 2013).

One of the general arguments supporting the replacement of human caregivers with carebots includes that carebots would add value in very busy healthcare contexts where time restrictions concerning time spent per care recipient are imposed as a result of the pressure experienced by numerous caregivers (Jones, 2015). The reason for this claim is that carebots would not have time restrictions imposed on them, which would allow them more time to express synthetic interest and the mere appearance of their willingness to listen, which may in turn, cause the care recipient to feel seen and heard, thereby seemingly addressing an aspect of their emotional needs (Jones, 2015).

It is also argued that carebots would provide more stable care, for example, devoid of cruelty and unkindness, which is sometimes brought about by human caregivers as a result of feeling overworked, stressed and tired (van Wynsberghe, 2016). An example of such includes a scenario where a human caregiver feels overwhelmed or angry and snaps at vulnerable care recipients, most likely frail older persons (van Wynsberghe, 2016). So, facilitation by robotic care would be better than human care in which the care recipient would potentially be subjected to the control of insensitive, disinterested or unpleasant human caregivers (Sharkey, 2013; van Wynsberghe, 2016).

Arguments against the case of carebots being deceptive include that, although any emotions will not be reciprocated, the mere simulation of emotional care is sufficient for being a good carer primarily because of its behaviour because care recipients generally judge human caregivers by the same criterion - their behaviour (Lancaster, 2019). This is because not all human caregivers provide their care recipients with true and sufficient emotional care, yet if some care recipients falsely feel cared-for by such a human caregiver, one would not generally label the care recipient delusional for feeling that way (Lancaster, 2019). Therefore, it is biased to make such a claim about a care recipient who feels cared-for by a carebot (Lancaster, 2019).

It is also argued that human caregivers are also found to fake their emotions at times, that is, they appear to emotionally care for care recipients when they actually feel indifferent to them or dislike them (Lancaster, 2019). For this reason, critics against carebots on the grounds of deceptive emotional care ought to criticise human caregivers on the same bases (Lancaster, 2019). Just as carebots are excluded from the category of entities who truly care, such human caregivers would also have to be excluded during the periods they portray false emotions for the sake of their job (Lancaster, 2019).

If deception is wrong then the same level of condemnation should exist for human caregivers and carebots because human caregivers who portray false emotions of care present more cause for concern than carebots do (Lancaster, 2019). So, it is not deceptive to accept care at face value because if an environment feels like one of care then it is one of care (Lancaster, 2019). Just as unequivocal evidence is not necessitated of the inner mental states and emotions of human caregivers, but rather, accepted as portrayed, so should the case be with carebots (Lancaster, 2019).

Arguments against the case of carebots and their incapacity to genuinely respond to or reciprocate feelings includes that carebots might learn to decode the speech of care recipients with linguistic impairment (Laitinen *et al.*, 2019). Another claim is that, through machine- and deep-learning, carebots also have the potential capacity to learn to identify, adapt, and personalise actions according to different care recipients and needs (Laitinen *et al.*, 2019). It is also argued that carebots are able to assist care recipients extend a range of capabilities through facilitating their independence by means of increased mobility (Sharkey, 2013).

Carebots could also be used to improve the care recipient’s access to different forms of communication, especially older adults (Sharkey, 2013). This is what is meant by synthetic communication, which may be beneficial to those especially with dementia and Alzheimer’s because social interaction, although synthetic, aids in reducing the care recipients stress and anxiety levels (Sharkey, 2013). Accordingly, it is claimed that carebots combat loneliness as they could act as the interface connects care recipients with relatively little human contact to their society or environment (Coeckelbergh, 2015).

Apart from carebots being programmed with the ability to engage in some conversation, they may also offer care recipients some entertainment, which may not only serve as a distraction from their loneliness, but also reduce some negative emotions (van Wynsberghe, 2016). Carebots can also encourage social interaction and can act as social facilitators by creating more opportunities to engage therein (Sharkey, 2013).

Coeckelbergh also puts forward that interactions with carebots could generate a new means of engaging with reality, thereby allowing care recipients to fulfil tasks for themselves through the carebots, which may then increase their sense of autonomy and self-respect (Coeckelbergh, 2010; Coeckelbergh, 2015). As carebots fulfil their assistive, monitoring and supervising and companionship related duties, they also increase the care recipient's feelings of control over their current setting and decrease their level of dependence on others during their period of robotic care (Sharkey, 2013). The promotion of independent living by carebots is also claimed to lessen the burden of care on the falling figures of human caregivers, which then entail that human caregivers may redirect their focus, time and effort to more urgent cases of care, such as emergencies (Sharkey, 2013; van Wynsberghe, 2016).

Whereas carebots would takeover, for example, the toileting and feeding needs of care recipients to improve their lives and reduce both their physical and mental stress (Sharkey, 2013; van Wynsberghe, 2016). Carebots may also assist in reducing stress and anxiety amongst care recipients by promoting the idea of play through increasing the likelihood of them laughing, playing and enjoying recreational activities (Sharkey, 2013). This may also allow care recipients the opportunity to develop attachments to carebots without having their emotions blighted (Sharkey, 2013).

Furthermore, one claim against the case of carebots undermining the care recipient's subjective dignity include situations where care recipients may feel embarrassed to be cared-for by a human (Sharkey, 2013). This embarrassment could be brought about by feelings of an undignified and dishonourable exposure of privacy to another human or a loved-one that is a caregiver (Sharkey, 2013). For example, a physically incapacitated care recipient who would want to maintain their dignity and integrity through preventing their loved-ones from seeing them in inoperable instances where they may be unable to control their environment, such as the inability to fulfil lavatory needs (Sharkey, 2013).

This can be understood as the value of privacy, so carebots would be able to prevent such embarrassment for care recipients who feel this way (Sharkey, 2013). The carebot may utilise its advanced abilities to determine when the care recipient should, for example, be lifted, fed or changed, and at what speed, from which angle, and also, with or without synthetic social interaction (Sharkey, 2013).

However, just as intrinsic dignity is available to all from birth and requires to be upheld, regardless of short-, medium- or long-term care, rational or irrational beings, and neonates, the young and elderly, likewise, the chance for care recipients to potentially experience the virtue of care during their period of receiving care should also be available to all. This, again, is an experience that carebots cannot offer or even potentially offer as this advanced technology does not allow for such sophisticated means of processing and computing in caretaking, and lack the capacity to participate in reciprocal interaction with human care recipients. All of which are potentially accompanied by human care through virtuous human caregivers.

The failure to adequately engage with care recipients on an emotional level through empathetic, sympathetic, and affectionate encounters, entail that the intrinsic dignity of care recipients would continue to be undermined until otherwise (Laitinen *et al.*, 2019). So, to equally respect the dignity of all care recipients, they should all be given the chance to potentially experience the virtue of care from their human caregivers, irrespective of the inability to guarantee a definite experience thereof.

Given this emotional inadequacy, carebots cannot emotionally engage with or cultivate the independence of care recipients, which then fails at addressing their emotional needs, thereby failing to uphold their intrinsic indignity. Care recipients may then begin to feel as though their emotional needs are unworthy of being met, resulting in overall feelings of unworthiness for genuine care. This may then cause care recipients to feel objectified, which also entails the disregard for the autonomy of care recipients, thereby challenging their subjective dignity. The significance of addressing the emotional needs of the care recipient includes that most individuals who require healthcare are also vulnerable and likely to have considerable emotional needs, which adequate healthcare is required to address in the best interests of all care recipients (Pearce *et al.*, 2012).

An attachment in which care recipients may want to develop with carebots is harmful and delusional. This incorrect grasp of reality renders a moral failure, thereby undermining or disrespecting the care recipient's dignity because human well-being is impeded by deception. This may persist until the care recipient develops an understanding and familiarity with carebots and their capabilities.

The shaping and reshaping of the relationship between the care recipient and caregiver are as capricious in character as the care recipient's needs, necessitating customised care (Sharkey & Sharkey, 2012; van Wynsberghe, 2016). This demonstrates human ability to constantly refine approaches to meet needs and reshape relationships, as opposed to the limited algorithms of technological care (Sharkey & Sharkey, 2012; van Wynsberghe, 2016).

Addressing the emotional needs of the care recipient may result in a significantly reduced risk of experiencing psychosocial distress and indications, such as physical pain (Pearce *et al.,* 2012). Satisfactory emotional care given to care recipients may result in improved outcomes of their physical health because of the link between physical and mental health (Pearce *et al.,* 2012). As poor mental health may negatively impact physical health, attending to the care recipient's emotional needs is essential to good healthcare and is not additional to or independent of good healthcare, but rather a part of good healthcare (Baer, 2015; Pearce *et al.,* 2012; Sinclair *et al.,* 2018). This is further elaborated on in chapter five where I claim that the virtue of care is the master virtue in fostering the care recipient's well-being.

Below I provide concluding remarks and a brief introduction to the succeeding chapter concerning the virtue of care as the master virtue essential in caregivers to provide good healthcare for care recipients, thus improving their well-being.

4.8 Conclusion

The implementation of carebots as a replacement for human caregivers ought not to be for the mere reason of reducing the care burden on caregivers. It may seem plausible to replace human caregivers with carebots in healthcare contexts where a high number of care cases are ranked at the lower end of a hierarchy of urgency to allow human caregivers to effectively focus on more urgent or life-threatening cases of care ranked at the upper end of the hierarchy. However, carebots would not be able to respect human dignity in an honourable sense.

The purpose of this chapter was to illustrate aspects of dignity that are under threat in the context and era of robotic care, thereby calling for an in-depth evaluation of the impact of carebots on human dignity within healthcare settings to determine whether carebots can provide ethically acceptable care for care recipients that upholds their dignity. Hence, carebots provide deprived and degrading treatment, which may strip care recipients of their dignity. A better understanding of the various senses of dignity is achieved, assisting in the understanding of how human dignity can be influenced by carebots within the healthcare context. Core discussions first covered the two key notions of dignity, namely intrinsic dignity and self-respect/subjective dignity, followed by the concept of dignified care.

The reflections provided in this chapter offers insights into the impact of carebots and their capabilities on resulting care practices. The crucial notion of this chapter holds that carebots have a negative impact on the dignity of care recipients by means of undermining it through different manners, such as potential deception, inadequate emotional engagement, and objectification of care recipients because of their absence of the virtue of care.

Three key arguments were presented. The first involved the concern that deception from carebots would undermine the dignity of care recipients. The second involved the concern that carebots would undermine the care recipient’s intrinsic dignity by failing to properly foster their independence and adequately engage with them on an emotional level. The final involved the concern that carebots would undermine the care recipient’s subjective expressions of dignity by making them feel as though they are undeserving of authentic and genuine care or as though they are being treated as objects. Lastly, I presented potential objections to the ideas that the use of carebots is deceitful, undermines the intrinsic and subjective dignity of care recipients through inadequate emotional engagement and failure to adequately cultivate independence, and objectification brought about by feelings of unworthiness for genuine care, respectively.

These three key claims illustrate the aspects of dignity that are under threat in the era and context of robotic care, which reveal that undermined dignity of care recipients may result in their undermined well-being. Undermined dignity and well-being suggests that the different needs of care recipients are not being met effectively, which also indicates that good care is not being delivered to the care recipients from their caregiver. This supports the overarching claim that carebots cannot provide good care for care recipients and so, should not replace human caregivers.

No guarantee of upheld dignity in healthcare can be given to the cluster of care recipients whose care is delivered by human caregivers. However, the mere exposure to this potential avoids segregating care recipients into bias-like clusters where one group is possibly exposed to the kind of care that upholds their human dignity and is ethically essential in healthcare contexts, while the other not. The inequality in exposure to the potential experience of the virtue of care is problematic unless it is by preference that a care recipient has chosen to be under the care of a carebot over a human caregiver.

I, now, proceed to the next chapter where I defend the claim that the virtue of care is the master virtue needed in caregivers to provide/promote good healthcare for care recipients. I claim that when care recipients feel genuinely cared about by their caregivers, their well-being is fostered.

5. WELL-BEING AND THE MASTER VIRTUE

5.1 Introduction

In this chapter, I focus on the relationship between the virtue of care and well-being to construct the key argument that care is the master virtue required in caregivers to promote the well-being of care recipients. Care as the master virtue supports the overarching claim by illustrating that only human caregivers can foster the overall well-being of care recipients and make them feel genuine care (Baer, 2015; Pearce *et al.*, 2012; Sinclair *et al.*, 2018). Two key claims are made to further support objective three in validating the virtue of care as the master virtue required in caregivers to promote the care recipient's well-being.

First, I argue that when care recipients feel genuinely cared about by their caregivers, their overall well-being is fostered. Providing adequate emotional care to the care recipient is ethically essential to providing good healthcare, which targets physical, psychological and social needs, to promote or enhance well-being. This can only be truly executed by human caregivers through the virtue of care (Pearce *et al.,* 2012). This is essential to good healthcare, not additional to or independent from it (Baer, 2015; Pearce *et al.,* 2012; Sinclair *et al.,* 2018). Second, I argue that the virtue of care is required for caregivers to adequately care *for* and care *about* care recipients. Caregivers who exercise the virtue of care partake in upholding the care recipient's dignity, thereupon improving their well-being.

I draw a connection between this chapter and the preceding one, chapter four. Given the triad relationship between the virtue of care, and the care recipient's dignity and well-being, these three variables can be seen as dependent on one another, thereby producing a rather direct correlation (Baer, 2015; Pearce *et al.,* 2012; Sinclair *et al.,* 2018). Caregivers that exercise the virtue of care partake in upholding the care recipients dignity, thereupon improving their well-being, whereas carebots or caregivers who fail to exercise this virtue participate in potentially undermining the care recipient's dignity, thus potentially deteriorating their well-being (Baer, 2015; Pearce *et al.,* 2012).

The previous chapter illustrated aspects of dignity that are under threat to demonstrate the importance of upholding care recipient dignity robotic under care. The claims presented within the previous chapter included the concern that carebots would introduce deception; fail at emotionally engaging with care recipients; and making them feel as though they are being treated as objects.

Below, I begin by discussing the different subsets of well-being in section 5.2 in order to provide a better understanding thereof. Within this section, I also discuss how each of the different sub-sets of well-being are improved or can be potentially improved. Having understood the magnitude of potential improvement in well-being, in section 5.3, I draw a clearer connection between the importance of the virtue of care and well-being, showing how they should go hand-in-hand.

I further this discussion in more depth in section 5.4 where I present my argument that the well-being of care recipients who feel genuinely cared about by their caregivers is fostered (Dal Santo *et al.*, 2013; Hardy, 2019). I also claim that in order for caregivers to genuinely feel care from their caregivers, their caregivers are required to exercise or possess the virtue of care (Wissing *et al.*, 2019). Following these key arguments, I consider the potential objections in section 5.5 and close with section 5.6.

5.2 Well-being

Well-being is frequently understood as the absence of distress and dysfunction because it sets to avoid suffering, attain pleasure, and relates to one's capacity to address physical, psychological and social challenges (Dodge *et al.*, 2012; Elliot, 2016). Well-being is an intangible, multi-dimensional construct that involves being a fully functional person, which goes beyond the absence of distress and the mere enjoyment of various goods, whether pleasure, desire-satisfaction or some state of affairs (Dodge *et al.*, 2012; Elliot, 2016). It is essentially divided into hedonic and eudaimonic subsets, which also encompass physical, psychological and social health to various degrees.

It also entails a comprehensive assessment of one's quality of life based on a self-generated criterion involving one's physical, psychological and social health, culture and value systems, perceptions, expectations and surrounding environment (Dodge *et al.*, 2012). Well-being contains an aspect of evaluation where one evaluates one's own meaning in life, purpose and overall life satisfaction (Kobau *et al.*, 2013). Physical, emotional and social well-being are generally known as the hyponyms of well-being as they predominantly determine an overall good life (Elliot, 2016; Haybron, 2007). Flourishing is the gold standard for measuring well-being (Seligman, 2011).

Health is defined by the World Health Organization (WHO) as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity"

(WHO, 2007, p. 1). Well-being is often related to health, longevity, life satisfaction, and an overall experience of positive states and emotions over negative ones (Kobau *et al.*, 2013).

The primary function of this section is to define and discuss well-being within its two primary branches. Strands of well-being, such as physical, psychological and social well-being, overlap into hedonic and eudaimonic well-being to an extent, making it challenging to exclusively filter well-being into single components. Below, I define hedonic and eudaimonic well-being before delving into the three universal concepts of well-being.

5.2.1 Hedonic and eudaimonic well-being

Hedonia places emphasis on greater positive emotional states and relates to pleasure as its direction to happiness (Disabato *et al.*, 2016). Hedonic well-being holds three interrelated elements, namely life satisfaction, presence of positive affect and absence of negative affect (Dodge *et al.*, 2012; Elliot, 2016). This fundamentally entails a sense that life is generally satisfactory and meaningful, in addition to the presence of pleasant emotions and the absence of unpleasant ones (Elliot, 2016). This comprises a cognitive judgment of one's own quality of life (Dodge *et al.*, 2012). Hedonic well-being entails pleasure and happiness that are subjectively determined through positive affective states (McMahan & Estes, 2011).

Eudaimonic well-being is focused on a more objective criterion for wellness (McMahan & Estes, 2011). It conceptualises well-being in respect of self-acceptance, positive social relations, autonomy, managing one's environment, meaning and life purpose, and personal growth and challenges (Disabato *et al.*, 2016). It reflects the good life and nurtures both affective and cognitive capacities (Disabato *et al.*, 2016; Elliot, 2016). Eudaimonic well-being drives to develop and perfect one's capacities to live a good life; however, this should not be misinterpreted as a form of human elitism comprised of the healthy and capable (Elliot, 2016; McMahan & Estes, 2011).

Moreover, well-being has a main eudaimonic facet and an accompanying hedonic facet (Elliot, 2016). Hedonic well-being cannot exist amidst ill health, while eudaimonic well-being can (Elliot, 2016). The extent to which approaches to well-being depend on subjective or objective criteria to establish wellness indicates whether hedonic or eudaimonic well-being is at work (McMahan & Estes, 2011). Hedonic well-being is centred on happiness and pleasure, and involves the possession and enjoyment of the goods required for eudaimonic well-being, which is centred on flourishing or happiness as personal fulfilment (Disabato *et al.*, 2016). For example, life itself, a physical body, goods of survival, clothing and shelter, goods as apparatus like money, as well as social relations (Elliot, 2016).

Regarding the above brief on both hedonic and eudaimonic well-being, it is gathered that eudaimonic well-being is best measured by physical, psychological and social well-being, while hedonic well-being is primarily measured by psychological well-being (McMahan & Estes, 2011). This means that wherever physical well-being is enhanced, eudaimonic well-being is consequently fostered, where psychological well-being is enhanced, both eudaimonic and hedonic well-being are fostered, and finally, where social well-being is enhanced, eudaimonic well-being is fostered as a result.

5.2.2 Physical well-being

First, physical well-being revolves around the ability to perform physical activities and carry out social roles unhindered by physical distresses, physical limitations and negative biological health indicators (Capio, 2014). A state of physical well-being holds more than the mere absence of bodily disease and involves the capacity to improve body functionality through primarily healthy lifestyle behaviours (Capio, 2014).

Physical well-being is a dynamic, yet a balanced state of optimal physical functioning, while biological and physiological functions are being preserved and developed for maximum life expectancy (Koipysheva *et al.*, 2018). Physical well-being depends on how one functions within one’s environment and adapts or adjusts to a volatile external environment (Koipysheva *et al.*, 2018). It is also influenced by four elements, namely genetics, health status, state of environment and one’s mode of life (Koipysheva *et al.*, 2018).

Although physical well-being is not a moral good, it is an instrumental good of psychological well-being (Dodge *et al.*, 2012; Elliot, 2016). Good physical health allows for unobstructed action with a sequence of biological processes ensuring individual survival (Elliot, 2016; Koipysheva *et al.*, 2018). Whereas, the complete lack of physical well-being, for instance, death, completely dismisses eudaimonic well-being (Elliot, 2016).

A study conducted by Erlangsen *et al* (2020) examined physical, psychological and social well-being in relation to the risk of self-harm and suicidal behaviour. In terms of psychological well-being, individuals with increased frailty in terms of functional limitations and physical disorders were also linked to higher rates of suicidal behaviour, which is also applicable to feelings of perceived burdensomeness (Erlangsen *et al.*, 2020; Koipysheva *et al.*, 2018).

5.2.3 Psychological well-being

Second, psychological or emotional well-being is composed of personal emotional indicators that are essential for overall good health, including both physical and mental health (Cohen & Legg, 2019). Positive mental well-being allows one to function in society and meet its demands, and recover effectively from ill health, change or misfortune (Cohen & Legg, 2019). It can be influenced by everyday experiences, positive and negative outlooks on satisfaction of life and overall emotional quality (Cohen & Legg, 2019). Core dimensions of psychological well-being include self-acceptance, purpose in life, environmental mastery, positive relationships, personal growth and autonomy (Dodg *et al.*, 2012; Ryff, 2014; Seligman, 2011).

Self-acceptance involves personal limitations; life purpose involves meaning and direction; environmental mastery involves the management of life issues; positive relations involve the depth of connection; personal growth involves the extent to which one's potential is used; and autonomy involves views on personal convictions (Ryff, 2014).

Furthermore, psychological distress and mental disorders are both linked to higher risks of suicide and deliberate self-harm in comparison to individuals who rated their psychological health as good (Erlangsen *et al.*, 2020). Erlangsen *et al* (2020) also identified that individuals with psychological and emotional distress were connected to increased rates of suicidal behaviour and deliberate self-harm

5.2.4 Social well-being

Third, social well-being refers to the level and depth of one's social circumstances and function in society, entailing the ability to communicate, develop meaningful relationships with others and sustain a support network through active participation in one's environment (Han *et al.*, 2019). Social well-being contains five sub-dimensions to which it is directly proportional, namely social-integration, -contribution, -coherence, -actualisation and –acceptance (Han *et al.*, 2019).

Moreover, supportive relationships are one of the strongest predictors of well-being because decreased social support has been linked to an increased risk of death through suicide (Campbel, 2016). The opposite is true when increased connectedness with humans and increased participation in social activities have been observed (Campbel, 2016). Erlangsen *et al* (2020) highlight the importance of social networks through a study conducted, which revealed that rates of self-harm and/or suicide significantly increased in individuals who were linked to decreased or no social networks (Erlangsen *et al.*, 2020).

As a result, both an active and larger social network is inversely associated with behaviour encompassing self-harm and suicide (Erlangsen *et al.*, 2020). Individuals who reported attended social group meetings once weekly and engaged in conversations over five times weekly were linked to significantly decreased rates of self-harm and suicide as compared to those who attended no meetings and had less than two weekly conversations (Erlangsen *et al.*, 2020).

Likewise, individuals who reported feeling as though they had more people to depend on within their social network were at a significantly decreased risk for self-harm and suicidal behaviour (Erlangsen *et al.*, 2020). In addition, the presence of close relatives and friends has been linked to the same outcome, thereby demonstrating the positive influence and necessity of social relations for humans (Erlangsen *et al.*, 2020). So, increased social integration, increased contact with relatives and friends, and increased social connectedness appear to be protective against increased suicide and deliberate self-harm rates.

Furthermore, overall well-being is directly affected by one’s perceived quality of life (Erlangsen *et al.*, 2020). Poor self-rated health and poor quality of life have demonstrated a strong link to increased rates of suicide and deliberate self-harm as compared to individuals who reported having good overall health (Erlangsen *et al.*, 2020).

After discussing the three universally known forms of well-being and a brief relation of each to hedonic and eudaimonic well-being, I turn to the theme of well-being in relation to the virtue of care in the following section. Below, I discuss the key respects in which the virtue of care is important for various forms of the care recipient’s well-being. I relate the virtue of care to well-being in terms of physical, psychological and/or social.

From the previous discussion on hedonic and eudaimonic well-being, it is understood that eudaimonic well-being is best measured by physical, psychological and social well-being, while hedonic well-being is primarily measured by psychological well-being (McMahan & Estes, 2011). Bearing this in mind, it becomes clearer below how caregivers who exercise the virtue of care foster either hedonic well-being, eudaimonic well-being or both, through enhanced physical, psychological and social well-being.

5.3 Significance of the virtue of care for well-being

Well-being is normative for care as it is intrinsic to the idea of one's good in the sense that, whatever advances their good, is something that should be rationally sought (Darwall, 1997). The goodness of the caregiver is what allows her/him to desire or promote the well-being of care recipients (Darwall, 1997). Here I discuss the key respects in which the virtue of care is important for the well-being of care recipients.

From previous discussions within this dissertation, it is known that the key elements of the virtue of care include friendly affection, sympathy and empathy, as well as attentiveness, responsiveness, respect and reciprocity. Below, I begin by discussing friendly affection in terms of the care recipient's well-being and follow with sympathy and empathy. Thereafter, I discuss attentiveness, responsiveness, respect and reciprocity in terms of the well-being of care recipients.

5.3.1 Friendly affection

Here, I begin with friendly affection as the first key element of the virtue of care and discuss its positive relation to the care recipient's well-being. Friendly affection relates primarily to physical well-being, but also links to psychological and social well-being.

Given that, friendly affection is an emotional response of deep awareness to the distress of care recipients, a desire to help through taking action to relieve it arises (Jeffery, 2016). Friendly affection is used as a method to develop or nurture the kindness, support, and encouragement required to promote the flourishing and well-being of care recipients (Jeffery, 2016; Sinclair *et al.*, 2017).

Care recipients may experience an enhanced sense of physical well-being through relief from distress, and a sense of enhanced quality of care simply by way of receiving affectionate care from caregivers (Sinclair *et al.*, 2017; Weingartner *et al.*, 2019).

Researchers at Stanford University conducted a study in 2014 on compassionate care and physical well-being within healthcare settings. This study revealed that care recipients who received care from friendly affection were disposed to faster and enhanced recovery, and experienced less pain and psychological distress or anxiety during the course of caretaking (Weingartner *et al.*, 2019). This study also revealed that care recipients were more likely to follow through with their care plan and engage in better self-care practices when they experienced some emotional connection with their caregivers (Weingartner *et al.*, 2019).

One reason for these results is that care recipients often primarily appraise their healthcare experience on their relationships with their caregivers (Sinclair *et al.*, 2017; Weingartner *et al.*, 2019). As a result, the care recipient's well-being is directly affected by their relations with their caregivers (Sinclair *et al.*, 2017; Weingartner *et al.*, 2019). Caregivers who invest time into building personalised relations with care recipients and who keep care recipients the centre of any care-related decision are able to offer personalised care specific to the needs and distress experienced by the care recipient (Weingartner *et al.*, 2019).

Additionally, researchers Stephen Trzeciak and Anthony Mazzarelli provide notable confirmation for affections link to care recipient recovery from their initial symptoms (Weingartner *et al.*, 2019). Neuroscience research using MRI scans illustrate that care recipients who receive affectionate, patient-centred care experience lower levels of pain through reduced neural activation in a brain region related to pain, that is, the anterior insula (Weingartner *et al.*, 2019).

Overall, the care recipient's physical well-being is enhanced through better self-care and increased adherence and compliance with their care plans, thereby resulting in better and faster recovery (Weingartner *et al.*, 2019). Sinclair *et al* (2017) reported that affection also positively affects care recipients by allowing them to feel emotionally validated and supported. Their social well-being is improved through feeling connected to their caregivers by building trust and stronger relationships, while their psychological well-being is improved through their experiences of diminished anxiety and pain during their caretaking (Weingartner *et al.*, 2019).

On that account, friendly affection is important in both meaningful and measurable ways. The following key element of the virtue of care that I discuss in relation to care recipient well-being is sympathy.

5.3.2 Sympathy

Caregivers in possession of the virtue of care are attuned to their sympathy for care recipients, while also understanding its influence on their judgment as they attempt to respond to the care recipient’s need and distress (Hardy, 2019). Although sympathy alone is often described as an unwanted, pity-based response to a distressing situation that lacks proper understanding of the presented distress, sympathy actually serves to aid caregivers in their interactions with their care recipients (Hardy, 2019).

Sympathy towards care recipients involves some concern for their good and some desire to promote their well-being (Dal Santo *et al.*, 2013). It concerns the welfare of care recipients mainly through feelings of pity, which brings about the motivation to take action towards providing assistance (Hardy, 2019; Hesse & Rauscher, 2018). This sympathetic motivation relates to a desire for the care recipient to be free from distress and overcome their experienced affliction (Hardy, 2019).

The importance of sympathy in relation to the well-being of care recipients is that it serves to induce action by caregivers in response to the perceived needs and distress of care recipients (Hardy, 2019; Hesse & Rauscher, 2018). It is a reflective and emotional response to the care recipient, where the reflection is respectively paired with an adjustment to the emotional response (Hardy, 2019). As a result, this yields that what is good for a care recipient is something that a caregiver has reason to want for the care recipient as well (Darwall, 1997).

However, sympathy alone does not have a significant impact on the care recipient’s well-being and must be supplemented with other experiences like friendly affection and empathy (Hardy, 2019; Sinclair *et al.*, 2017). The reason for this is that sympathy merely induces a feeling or thought to take action in response to a given need or distress, which does not guarantee that the most appropriate response will be taken (Hardy, 2019).

When coupled with friendly affection and empathy, a sympathetic response is augmented by making it compassionate by means of friendly affection, and personalised to the specific need by means of understanding gained via empathy (Dal Santo *et al.*, 2013; Hardy, 2019; Sinclair *et al.*, 2017).

This entails that sympathy, when in collaboration with friendly affection and empathy, enhances physical, psychological and social well-being depending on whether the need or distress presented is physical, psychological or social. Sympathy alone merely induces a response from the caregiver, but it is friendly affection and empathy that determine whether that induced response is good or compassionate and appropriate to the care recipient and circumstance (Dal Santo *et al.*, 2013; Hardy, 2019; Sinclair *et al.*, 2017).

Accordingly, sympathy is an intersubjective affect that aids caregivers in their interactions with care recipients, which can also be useful in caregivers' decision-making as it is separate from emotional contagion (Baghramian, 2019; Hardy, 2019). It is vital to note that sympathy alone does not ensure that actions towards care recipients are taken, it is the induced thought or feeling to take action, which is why sympathy also requires collaboration with an important element of the virtue of care, namely responsiveness (Baghramian, 2019). It is responsiveness itself that ensures action to address needs and distress is taken, which is initially brought about by the thoughts and feelings included by sympathy (Baghramian, 2019; Tarrant *et al.*, 2014). Responsiveness is discussed further down within this chapter.

After understanding sympathy's relation to well-being, it is clear that sympathy is required to operate with friendly affection, discussed in the section directly above, as well as empathy discussed in the section directly below.

5.3.3 Empathy

The next key element of the virtue of care that I discuss is empathy, which positively relates to the care recipient's physical, psychological and social well-being. Given that empathy is an active mental process that enables caregivers to understand the individual needs and experiences of care recipients better, caregivers can then offer individualised care/treatment to meet those needs more effectively (Dal Santo *et al.*, 2013).

This means that, through empathy, caregivers are enabled to imagine from another orientated perspective (Jeffery, 2016). To perceive or imagine from the standpoint of a care recipient stimulates the caregiver to act appropriately on the newly gained understanding to better care for the care recipient (Jeffery, 2016). As a result, depending on whether the need is physical, emotional or social, the outcome would be either improved physical, psychological or social well-being.

Generally, the relation between empathy and well-being resides primarily in improved psychological and social well-being, which accordingly improves physical well-being (Dal

Santo *et al.*, 2013; Sinclair *et al.*, 2017). This is because as caregivers exercise empathy towards care recipients, they allow care recipients to feel heard, understood, and validated when voicing their needs and distress (Dal Santo *et al.*, 2013; Sinclair *et al.*, 2017). Empathy allows the caregiver to acknowledge the needs and distress of the care recipient, as well as assure them that their needs are important through validating their feelings (Dal Santo *et al.*, 2013; Sinclair *et al.*, 2017).

This allows care recipients to feel supported, which, in turn, significantly promotes care recipient adherence to treatment and increases their sense of satisfaction with the care received (Dal Santo *et al.*, 2013). Empathy increases the efficiency of gathering information about the care recipient's needs and enhances rapport, which cooperatively facilitates proper treatment or care from caregivers with a reduced risk for errors and fewer malpractice complaints (Hesse & Rauscher, 2018). This clinical curiosity drives the caregiver to gain deeper insight into the care recipient's concerns, feelings and distress, thereby causing care recipients to feel that they matter, which enhances psychological well-being to an extent (Jeffery, 2016).

Additionally, as care recipients feel more supported and encouraged by caregivers, they are then able to better process the negative effects of distress, built trust, and have positive meaningful interactions, which contribute to a strong support network (Dal Santo *et al.*, 2013; Hardy, 2019). Since empathy occurs in a reciprocal relationship with care recipients, the emotional sharing involved between them improves the social well-being of care recipients as an increased sense of belonging is achieved (Jeffery, 2016).

This primarily enhances psychological and social well-being, but the resulting improved adherence to treatment and care thereby improving physical well-being through better health outcomes (Dal Santo *et al.*, 2013; Hardy, 2019). Likewise, as caregivers can better perceive and understand the care recipient's needs and distress through empathy, they can improve the overall well-being by providing individualised care through sound medical judgment while maintaining equanimity (Dal Santo *et al.*, 2013). As a result, overall therapeutic effectiveness is enriched (Hesse & Rauscher, 2018).

Hitherto, I have discussed friendly affection, sympathy and empathy in the context of care recipient well-being, in which affection and sympathy are reactive responses, while empathy is a skilled response (Jeffery, 2016). Subsequently, I address the remaining elements of the virtue of care, namely attentiveness, responsiveness, respect, and reciprocity. However, before proceeding to discuss these remaining elements, it is vital to note that these elements generally relate to all forms of well-being and not predominantly one over the other.

The sort of well-being it fosters, again, depends on whether the need or distress is physical, psychological or social related. Below, I begin by discussing attentiveness in relation to the care recipient's well-being.

5.3.4 Attentiveness

The role of attentiveness within care is to realise when a particular need arises within a care recipient (Sinclair *et al.*, 2017). Attentiveness is a non-judgmental method utilised to direct all attention towards the care recipient's needs and distress (Bawa *et al.*, 2015; Sinclair *et al.*, 2017). Attentiveness contributes towards creating better communication channels between the caregiver and care recipient, thereby delivering care more thoughtfully as opposed to some mere routine (Bawa *et al.*, 2015). This entails enhanced personalised care through notetaking of flagged or ambiguous areas of care recipient health, which allows for improved overall well-being because the caring response provided by the caregiver is more equipped to address the specific need or distress (Bawa *et al.*, 2015; Sinclair *et al.*, 2017).

Attentiveness positively contributes to the depth of obtaining subtle information about the care recipient's state or condition, physically, mentally and socially (Bawa *et al.*, 2015). Subtle cues may be exhibited by care recipients during caring practises, which may aid in obtaining further insights into the care recipient's persona and their common reactions to certain stimuli, environmental conditions or other factors that may allow the caregiver to act appropriately to establish rapport with the care recipient (Bawa *et al.*, 2015).

Awareness of the care recipients environment and feelings may assist caregivers in paving a path to better express friendly affection, sympathy and empathy towards the care recipient in their practice and provision of care (Bawa *et al.*, 2015). This results from a state of deeper awareness that is achieved from attentiveness, thereby allowing a more holistic approach to care to develop (Bawa *et al.*, 2015).

Without attentiveness, caregivers would not be able to identify and acknowledge when particular needs or distress arise within care recipients, in order to thoroughly evaluate the details thereof to decide how to best respond (Bawa *et al.*, 2015; Sinclair *et al.*, 2017). This positively contributes to the overall well-being of the care recipient.

5.3.5 Responsiveness

Responsiveness is based on the element of attentiveness because the former is the actual act of care, which is adequately decided by the latter (Bawa *et al.*, 2015; Tarrant *et al.*, 2014). Responsiveness contributes towards furthering or promoting the well-being of the care recipient as this trait involves the action itself to address the perceived needs and distress experienced (Tarrant *et al.*, 2014).

Although responsiveness is heavily dependent on its fellow element of the virtue of care, without responsiveness, a caregiver can merely feel affectionate, sympathetic and empathetic towards care recipients, while also being observant of the required need and response through attentiveness, but not take action itself to respond physically (Jeffery, 2016; Sinclair *et al.*, 2017; Tarrant *et al.*, 2014).

Furthermore, chief attributes of responsiveness include the alignment of the physical environment with the needs of care recipients, diversity awareness and cultural alignment, caregiver attitudes and behaviours, co-ordination and support for ongoing care and information engagement (Tarrant *et al.*, 2014). These attributes of responsiveness operate collectively to ensure that the actions taken in response to the care recipient's needs and distress are executed successfully and strategically for their enhanced overall well-being (Erlangsen *et al.*, 2020; Tarrant *et al.*, 2014).

First, responsiveness to care recipient needs in terms of the alignment of the physical environment includes the action towards an environment that protects the privacy of care recipients (Tarrant *et al.*, 2014). Diversity awareness and cultural alignment entail the caregivers understanding of and efforts to align care and caring practices with the language, culture, and lifestyle of the care recipient (Tarrant *et al.*, 2014).

The attitudes and behaviour of caregivers towards care recipients allow for demonstrations of friendliness, respect, understanding, helpfulness, and supportiveness towards the needs of care recipients (Tarrant *et al.*, 2014). Co-ordination and support for ongoing care require a partnership with care recipients to organise and co-ordinate their care (Tarrant *et al.*, 2014). Finally, information and engagement are meant by engaging and listening to care recipients, which also partially ties in with attentiveness (Tarrant *et al.*, 2014).

Moreover, I move on to discuss respect as the next element of the virtue of care in the context of well-being. Respect is vital to enhanced well-being and is exercised through the element of responsiveness, which is expanded on below.

5.3.6 Respect

Respect is an attitude, which is determined through its manifestation in caregivers' behaviour towards care recipients (Dickert & Kass, 2019). Respect requires caregivers to regard care recipients as another self, which entails acknowledging and considering their needs as significant and equal to those of the caregiver, as well as treating care recipients as ends in themselves as opposed to a means to an end (Donaldson, 2017; Hesse & Rauscher, 2018; de Sio & van Wynsberghe, 2016). Respect gives consideration for the care recipient's needs, preferences, feelings, personal and cultural beliefs, perspectives to be regarded and not discriminated against (Bangerter *et al.*, 2016). Consideration for these aspects also allows for enhanced customised care, which improves overall well-being of the care recipient (Bangerter *et al.*, 2016).

Respect also yields a platform for caregivers and care recipients to build trust and stronger relationships (Koskenniemi *et al.*, 2015). Respect directly enhances care recipient's social well-being because of the opportunity to build meaningful connections with caregivers, feel valued, and have a sense of belonging (Weingartner *et al.*, 2019).

Consequently, trust-filled relationships and emotional connections with caregivers result in an increased likelihood for care recipients to follow through with their care plan and engage in better self-care practices, thereby enhancing physical well-being (Weingartner *et al.*, 2019). Treating care recipients with respect is associated with better care experience and care satisfaction and goes beyond recognising them as autonomous (Dickert & Kass, 2019). Respecting care recipients through caregiving entails, in essence, treating them with dignity that is non-conditional (Bangerter *et al.*, 2016; Jeffery, 2016).

Additionally, respect allows caregivers to make care recipients feel valued as human beings, which contribute to the care recipient's psychological well-being (Dickert & Kass, 2019). In addition, the care recipient's self-esteem is enriched, along with a significant reduction in symptoms of psychological distress, which also allows care recipients to feel empowered as they feel worthy and recognised through being respected (Dickert & Kass, 2019; Xiao *et al.*, 2019).

Research regarding treating care recipients with respect through valuing their dignity reveals that an enhanced sense of dignity is strongly associated with improved psychological well-being and overall improved quality of life (Xiao *et al.*, 2019). Overall, respect in care positively influences the physical, psychological and social well-being of care recipients, whether directly or indirectly.

5.3.7 Reciprocity

Reciprocity can be taken up as a product of the virtue of care, which holds together and enhances all the key elements comprising the virtue of care. Reciprocity applies only to human beings and is an important tool within healthcare contexts for sustaining supportive relationships and providing quality care (Marcum, 2012). Reciprocity is pivotal to the development of authentic interpersonal relationships and facilitates an active caregiver role as opposed to a passive one (Palmer *et al.*, 2019; Sandoval *et al.*, 2016).

This significantly enhances social well-being because authentic interpersonal relationships are a given human need (Han *et al.*, 2019; Palmer *et al.*, 2019). This also improves one's ability to communicate, provides clarity on the depth of one's social circumstances and function in society, as well as ability to sustain a support network through active participation in one's environment (Han *et al.*, 2019).

Reciprocity entails mutual dependence, action or influence (Palmer *et al.*, 2019). This means that reciprocity provides a platform for the key elements of the virtue of care to be carried out into effect (Palmer *et al.*, 2019). Since the virtue of care unravels pathways for true caring and deep feelings, emotional exchange is expected to follow (Marcum, 2012). Reciprocity is also required to better address the distress or needs of care recipients as it provides a pathway for informational exchange where details and feedback regarding the care recipient's needs, distress, and care response from caregiver are given and evaluated through active dialogues (Sandoval *et al.*, 2016; Palmer *et al.*, 2019).

This serves as constructive feedback and further allows for the refinement of all aspects concerning the care recipient's well-being, such as refined understanding, response, communication, and treatment among others for the improvement of physical, psychological and social well-being (Sandoval *et al.*, 2016).

5.4 How does the virtue of care relate to and foster well-being?

From the above-discussion of the significance of the virtue of care for the well-being of care recipients, two inferences can be positively made. First, when care recipients feel genuinely cared for by their caregivers, their overall well-being is fostered. Next, the virtue of care is required for caregivers to provide proper care for individual care recipients.

The relation between a care recipient's well-being and feelings of genuine care from their caregivers dwells within the fact that human beings are social creatures with the desire and need for true human connection. This forms a major part of their recovery and flourishing, especially when they are in a state of vulnerability (Wissing *et al.*, 2019). Feelings of genuine care from caregivers allow care recipients to feel important, valued, understood, heard, validated, and supported (Sinclair *et al.*, 2017).

Their overall well-being is fostered as a result because they often appraise their healthcare experience in terms of their relationships with their caregivers (Sinclair *et al.*, 2017; Weingartner *et al.*, 2019). Positive meaningful interactions are built on trust and are reciprocal, which contribute to a strong support network (Dal Santo *et al.*, 2013; Hardy, 2019). Through this, an increased sense of belonging is achieved as authentic interpersonal relationships are a given human need (Grinberg *et al.*, 2016; Marcum, 2012; Palmer *et al.*, 2019).

Care recipients receive a sense of hope and confidence in their health status from caregivers through feelings of genuine care, which enable them to trust their caregiver because they feel that their caregiver has their best interests at heart (Sinclair *et al.*, 2017; Weingartner *et al.*, 2019). This trust and hope in their caregiver encourage care recipients to take better care of themselves and to be more compliant with their treatment or care plan (Dal Santo *et al.*, 2013; Sinclair *et al.*, 2017; Weingartner *et al.*, 2019). Diminished psychological distress, quality social and emotional relations with caregivers, as well as enhanced and shorter recovery periods result, thereby improving physical, psychological and social well-being (Sinclair *et al.*, 2017; Weingartner *et al.*, 2019).

Given the emotional connection and trust, care recipients feel their caregivers desire to promote their well-being by also wanting what is good for them (Dal Santo *et al.*, 2013; Darwall, 1997). Again, this encourages feelings of support and social connectedness, thereby enhancing various aspects of overall well-being (Dal Santo *et al.*, 2013). As care recipients are inclined to feel heard, understood, and validated when they feel a sense of genuine care from caregivers, their well-being is promoted through freely being able to express their needs and distress without judgement, resulting in increased feelings of support (Dal Santo *et al.*, 2013; Jeffery, 2016; Sinclair *et al.*, 2017). As care recipients feel more supported and encouraged by caregivers, they are then able to better process the negative effects of distress (Dal Santo *et al.*, 2013; Hardy, 2019).

The care recipient's well-being is also fostered as a result of feeling a sense of genuine care from caregivers because it also causes them to feel valued as human beings, which also brings about improved self-esteem, feelings of recognition, a sense of worthiness and empowerment (Dickert & Kass, 2019; Xiao *et al.*, 2019). This is contributed by caregivers directing all attention towards the care recipient's needs to gain deeper insight into their concerns, feelings and distress, thereby increasing the efficiency of gathering information, enhancing rapport, and causing care recipients to feel that they matter (Bawa *et al.*, 2015; Jeffery, 2019; Sinclair *et al.*, 2017).

In addition, respecting care recipients by treating them as ends in themselves through regarding care recipients as another self contributes significantly to making them feel valued (Donaldson, 2017; Hesse & Rauscher, 2018; de Sio & van Wynsberghe, 2016). The more genuine care that care recipients encounter from caregivers, the higher their sense of satisfaction concerning their experience with the care received (Dal Santo *et al.*, 2013). This overall satisfaction is indicative of the quality of care and accuracy in addressing their needs and distress, which also positively influences their overall well-being (Jeffery, 2016).

Moreover, genuine care can merely be exercised by human caregivers through the virtue of care, which fosters the care recipient's well-being as they feel truly cared about (Weingartner *et al.*, 2019). Feeling truly cared about essentially produces a sense of strong support from caregivers, which is vital for their well-being because, for the period of time that they are labelled recipients of care, they are in a state of vulnerability and require the intervention of a restoration force, namely the caregiver. This sense of strong support allows the care recipient to depend on their caregiver for help until they have regained a stable sense of health status in which they no longer require care (Dal Santo *et al.*, 2013; Sinclair *et al.*, 2017).

The support system that caregivers offer care recipients through exercising the virtue of care allows for the provision of quality care towards physical, psychological and social needs, thereby fostering physical, psychological and social well-being (Marcum, 2012). Accordingly, this also fosters both hedonic and eudaimonic well-being.

Hedonic well-being is fostered because of improved psychological health since an increase in positive emotional states and a decrease in negative emotional states causes an increase in a sense of life satisfaction (Dodge *et al.*, 2012; Elliot, 2016). Accordingly, enhanced pleasure and happiness result through being subjectively determined (Disabato *et al.*, 2016; McMahan & Estes, 2011).

Eudaimonic well-being is fostered through positive social relations, increased autonomy, personal growth, improved environmental mastery, a sense of life purpose and self-acceptance through accepting current health status, cooperating with caregivers and adhering to care plans in hopes of restoring health (Disabato *et al.*, 2016). As a result, this can only be achieved through enhanced physical, psychological and social well-being, which brings about flourishing or happiness as personal fulfilment intended to live the good life (Disabato *et al.*, 2016; Elliot, 2016; McMahan & Estes, 2011).

Furthermore, it is not enough that care recipients feel genuinely cared about through the care provided by caregivers because the sort of care that is provided needs to be appropriate to the specific care recipient and type of need. For this reason, the virtue of care is required for caregivers to provide proper care for individual care recipients.

Caregivers that exercise the virtue of care are able to offer personalised care specific to the needs and distress experienced by the care recipient (Weingartner *et al.*, 2019). This entails that, through a better understanding of the individual needs and experiences of care recipients, caregivers can then offer individualised care/treatment to meet those needs more effectively (Dal Santo *et al.*, 2013).

This capacity is brought about by the element of empathy within the virtue of care, which means that caregivers can perceive or imagine from the care recipient’s standpoint (Jeffery, 2016). This stimulates the caregiver to act appropriately on the newly gained understanding to better address the need and distress of the care recipient (Dal Santo *et al.*, 2013; Jeffery, 2016; Sinclair *et al.*, 2017).

The virtue of care also contributes towards creating better communication channels between the caregiver and care recipient, thereby delivering care more thoughtfully (Bawa *et* *al.*, 2015). It also allows for a state of deeper awareness, which contributes to the depth of obtaining subtle information about the care recipient's state or condition, physically, mentally and socially (Bawa *et al.*, 2015).

As a result, this allows for improved overall well-being because the caring response provided by the caregiver is equipped to address the specifically presented need and distress (Bawa *et al.*, 2015; Sinclair *et al.*, 2017). For instance, subtle cues may be exhibited by care recipients, which may aid in further insights to the care recipient's persona and their common reactions to certain stimuli, environmental conditions or other factors that may allow the caregiver to act appropriately to establish rapport with the care recipient (Bawa *et al.*, 2015).

This paves the way for enhanced expressions of friendly affection, sympathy and empathy to take place (Bawa *et al.*, 2015). In collaboration with attentiveness, responsiveness, and respect, the caregiver effectively addresses, develops or upholds, and alleviates a care recipients basic needs, capabilities, and suffering, respectively (Sinclair *et al.*, 2017). This allows the caregiver to take the most appropriate action, at the most appropriate time, to address the most relevant need as a means of yielding positive health outcomes for the care recipient (Barcaro *et al.*, 2018). The caregiver's intrinsic motivation and caring action aims to benefit the care recipient in aiding them to meet their human needs in hopes of human flourishing (Dal Santo *et al.*, 2013).

Because of the virtuous caregivers' ability to develop authentic interpersonal relationships with care recipients, which facilitates an active role for the caregiver, reciprocity takes place, thereby improving communication (Palmer *et al.*, 2019; Sandoval *et al.*, 2016). Reciprocity is also required to better address the distress or needs of care recipients as it enhances informational exchange where details and feedback regarding the care recipient's needs, distress, and care response from caregiver are given and evaluated through active dialogues (Sandoval *et al.*, 2016; Palmer *et al.*, 2019).

The virtue of care unravels pathways for true caring and deep feelings to occur, through which supportive relationships can be sustained to provide quality care (Marcum, 2012). Part of providing care recipients with proper care is based on taking into consideration their preferences, feelings, personal and cultural beliefs, and perspectives (Bangerter *et al.*, 2016). Such consideration, along with respectful attitudes and caring practices allow for enhanced customised care that is dignified and improves overall well-being of the care recipient, as well as overall improved quality of life (Bangerter *et al.*, 2016; Xiao *et al.*, 2019).

Care is the master virtue because of its direct link to enhanced well-being, enhanced care experience, and enhanced care satisfaction (Dickert & Kass, 2019). Through the virtue of care, caregivers are capable of caring in such a way that ultimately increases all forms of the care recipient's well-being, namely physical, psychological and social well-being, thereby eudaimonic and hedonic well-being, too (Dal Santo *et al.*, 2013; Sandoval *et al.*, 2016).

The care recipient's overall well-being is fostered when their caregivers exercise the virtue of care, causing them to feel genuinely cared about, while caregivers require the virtue of care to provide proper care for individual care recipients. Thus, the virtue of care serves two ends concerning the care recipient's well-being (Dal Santo *et al.*, 2013).

For this reason, care is the master virtue because of its intensely intertwined relationship with well-being. Only human caregivers that exercise the virtue of care are capable of caring in such a way that ultimately reveals the connections between care practices and increased well-being in care recipients (Dal Santo *et al.*, 2013; Sandoval *et al.*, 2016).

The caregiver's intrinsic motivation and caring action aims to benefit the care recipient in aiding them to meet their human needs in hopes of human flourishing. The goodness of the caregiver is what allows her/him to desire or promote the well-being of care recipients (Dal Santo *et al.*, 2013; Sandoval *et al.*, 2016).

I, now, move over to presenting the popular potential objections to my arguments in section 5.5 below.

5.5 Potential objections

In this section, I begin by considering objections to the key claims presented within this chapter and follow by counter-arguing each. Objections follow from Karen Lancaster (2019) and Ipke Wachsmuth (2018).

A key objection is that care recipients can still feel cared about and have their well-being fostered even when their caregiver is not exercising the virtue of care (Lancaster, 2019; (Wachsmuth, 2018). And so, this trails to the idea that genuine care is not required for caregivers to provide proper care to care recipients (Lancaster, 2019; Wachsmuth, 2018).

Lancaster (2019) claims that the appearance of emotional care is sufficient and need not be linked to emotional states because caregivers who pretend to emotionally care for their care recipients still manage to make them feel adequately cared for. She defines care in two respects, namely emotional and physical. The former involves compassionate emotions and a concern for their welfare, while the latter involves actions of caretaking for their survival and flourishing devoid of emotions (Lancaster, 2019).

This supports Meacham and Studley (2017) claim that it is a miscarried perspective to accept genuine care as strictly connected to certain emotional states present within the caregiver. This is because, if care recipients can feel comforted and cared for by emotionless robots, then the same applies in cases where caregivers do not exercise genuine emotion. Since evidence illustrates an improvement in the care recipient's mood and well-being as a result of robotic care, which is devoid of any genuine emotion, then it is likely that the same occurs in cases where human caregivers do not experience genuine emotions (Lancaster, 2019).

From the perspective of the care recipient, human caregivers who convincingly displays emotional caring behaviour appear comparable with caregivers who genuinely feel emotions towards care recipients (Lancaster, 2019). Although the impression of emotional care from some human caregivers does not imply the actual possession of those caring emotions, Lancaster (2019) maintains that the mere simulation of emotional care from human caregivers is sufficient for being a good caregiver because of the caring behaviour it brings about.

That is, the criterion for care is often based on behaviour, rather than feelings or emotions, such as codes of conduct for medical professionals (Lancaster, 2019). These codes of conduct stipulate how caregivers should behave towards care recipients, as opposed to what emotions they should feel towards them (Lancaster, 2019). For instance, following this flawed logic in the case of my first key claim, this would suggest that caregivers should behave affectionately, sympathetically and empathetically towards care recipients, but not necessarily feel friendly affection, sympathy and empathy for them. As a result, the persuasive appearance of these emotions from caregivers, along with effective practical care, is sufficient for care recipients to feel cared for, thereby still fostering their well-being (Lancaster, 2019; Meacham & Studley, 2017).

Furthermore, Lancaster (2019) states that a case in which all human caregivers emotionally care about their care recipients is unlikely; however, caregivers who can provide proper practical care and effectively imitate emotional care will still adequately satisfy their care recipients. Lancaster (2019) also claims that unequivocal evidence of human caregivers' inner mental states and emotions are not demanded to establish the authenticity of their care towards care recipients because it is simply accepted prima facie. Besides neurophysiological scans of human caregivers, no concrete evidence can be obtained to firmly establish whether or how often caregivers truly care or convincingly imitate emotions of care (Lancaster, 2019).

For this reason, she concludes that true emotional care is not significant for being a good caregiver or provide good care, but rather the appearance of emotional care through convincing simulations (Lancaster, 2019). Thus, a preference for human caregivers who genuinely care over those who convincingly imitate emotions of care is without cause (Lancaster, 2019).

Likewise, Wachsmuth (2018) claims that caring does not have to be true to promote well-being because the illusion that caregivers respond to the feelings and suffering of are recipients is sufficient to promote well-being. This is because caregivers are still capable of engaging with and addressing the care recipient's needs, while remaining emotionally detached from the presenting distress through regulating their own emotions (Wachsmuth, 2018).

Wachsmuth (2018) also argues that caregivers' emotional involvement cannot be directly observed, but merely inferred based on the experience of interactions care recipients have with them during the provision of care. According to this author, this makes it reasonable to agree that the appearance of emotions is sufficient for the well-being of a care recipient (Wachsmuth, 2018).

Contrastingly, this objection is flawed because human beings are social creatures who desire and need true human connection as part of their recovery and flourishing (Wissing *et al.*, 2019). Caregivers that exercise the virtue of care are able to offer personalised care specific to the needs and distress experienced by care recipients (Weingartner *et al.*, 2019). The depth of understanding brought about by the virtue of care cannot be achieved through simulations of the key elements from the virtue of care (Dal Santo *et al.*, 2013).

Only genuine possession or exercising of the virtue of care allows caregivers to effectively perceive or imagine the needs and distress experienced from the care recipient's standpoint (Jeffery, 2016). This deeper insight into the care recipient's needs and distress is achieved through an actual mental skill, which cannot produce the same results through imitation thereof, namely empathy (Dal Santo *et al.*, 2013; Jeffery, 2016; Sinclair *et al.*, 2017).

The state of deeper awareness cannot be imitated as this state produces information, and so, a simulation thereof would not produce or give insight into accurate information required to respond to particular needs and in the most appropriate manner for the care recipient adequately (Bawa *et al.*, 2015). This also contributes to the depth of obtaining subtle information about the care recipient's physical, mental and social state (Bawa *et al.*, 2015). As a result, this allows for a better-equipped caring response from caregivers (Bawa *et al.*, 2015; Sinclair *et al.*, 2017).

The virtue of care is required for caregivers to provide proper care to care recipients because of its contribution towards creating better communication channels between the caregiver and care recipient, thereby delivering care more thoughtfully (Bawa *et al.*, 2015). The improved communication channels allow for enhanced development of authentic interpersonal relationships between caregivers and care recipients, thereby bringing about reciprocity (Palmer *et al.*, 2019; Sandoval *et al.*, 2016).

Reciprocity also enhances informational exchange where details and feedback regarding caregiving approaches and outcomes are evaluated through active dialogues (Sandoval *et al.*, 2016; Palmer *et al.*, 2019). The virtue of care unravels pathways for true caring and deep feelings to occur, through which supportive relationships can be sustained to provide quality care (Marcum, 2012).

Given that, feeling truly cared about gives care recipients a sense of strong support from caregivers, which is vital for well-being, allowing care recipients to rely and depend on their caregiver until they have regained a decent health status (Dal Santo *et al.*, 2013; Sinclair *et al.*, 2017). However, when emotional care is imitated, regardless of how convincing, caregivers who fail to exercise the virtue of care may dwindle, thereby eventually failing to be reliable for the care recipient to depend on, whether physically, emotionally or socially in terms of needs status (Dal Santo *et al.*, 2013; Sinclair *et al.*, 2017).

Since positive meaningful interactions are built on trust and reciprocity, which contribute to a strong support network, a problem arises concerning trust in cases where caregivers imitate emotional care (Dal Santo *et al.*, 2013; Hardy, 2019). Although some human caregivers can convincingly imitate emotional care, allowing care recipients to also feel cared for, similar to genuine care, where care recipients feel valued, understood, heard, validated, and supported, the trust is likely one-sided when false emotional care is demonstrated by caregivers (Sinclair *et al.*, 2017). This could entail that the support and imitated care from some caregivers are bound to fail, thereby proving the point that the virtue of care is required for proper care (Dal Santo *et al.*, 2013; Jeffery, 2016; Sinclair *et al.*, 2017). Failed care cannot be considered proper.

Caregivers who lack the virtue of care are not able to effectively treat care recipients as ends in themselves. Already, faking care does not serve the care recipient. The more genuine care that care recipients encounter from caregivers, the higher their sense of satisfaction concerning their experience with the care received (Dal Santo *et al.*, 2013). This overall satisfaction is indicative of the quality of care (Jeffery, 2016).

Additionally, the caregiver's intrinsic motivation and caring action aims to benefit the care recipient in aiding them to meet their human needs in hopes of human flourishing (Dal Santo *et al.*, 2013). This allows the caregiver to take the most appropriate action, at the most appropriate time, to address the most relevant need as a means of yielding positive health outcomes for the care recipient (Barcaro *et al.*, 2018). Given the emotional connection and trust, care recipients feel their caregivers desire to promote their well-being by also wanting what is good for them (Dal Santo *et al.*, 2013; Darwall, 1997). Again, this encourages feelings of support and social connectedness, thereby enhancing various aspects of overall well-being (Dal Santo *et al.*, 2013).

Furthermore, through the virtue of care, caregivers are capable of caring in such a way that ultimately increases all forms of the care recipient's well-being, namely physical, psychological and social well-being, thereby eudaimonic and hedonic well-being, too (Dal Santo *et al.*, 2013; Sandoval *et al.*, 2016). Although human caregivers who lack the virtue of care may possess some vital traits and skills to provide decent care for care recipients, they would not be able to provide proper care in all departments, namely physical, psychological and social care, thereby fostering hedonic and eudaimonic well-being (Marcum, 2012). That is, enhanced pleasure, happiness, flourishing, and self-fulfilment.

The essence of the virtue of care as a requirement to provide proper care for care recipients is that it equips caregivers with all the required skills and traits to effectively address various needs and distress from the physical, mental and social realm (Dal Santo *et al.*, 2013;

Sandoval *et al.*, 2016). So, although some caregivers may imitate emotional care and may affectively address certain types of needs, they are not fully equipped to, regardless of how cared for they may make their care recipients feel (Dal Santo *et al.*, 2013; Sandoval *et al.*, 2016).

A mere simulation would, therefore, not provide complete understanding as it is implausible for a caregiver to entirely understand all diverse perspective of different care recipients (Dal Santo *et al.*, 2013). This means that emotional imitation fails to completely and satisfactorily address the presented or given care recipient need and its various capricious elements.

Addressing the emotional needs of care recipients bring about a significantly reduced risk for care recipient distress and its indicators, such as physical pain (Pearce *et al.*, 2012). Satisfactory emotional and social care given to the care recipient may result in improved outcomes of their physical health because of the link between physical and mental health (Pearce *et al.*, 2012). Poor mental health negatively impacts physical health, so adequately attending to the emotional and social needs is neither additional to, nor independent from good healthcare, but rather essential to good healthcare (Baer, 2015; Pearce *et al.*, 2012; Sinclair *et al.*, 2018).

5.6 Conclusion

Well-being is an intangible, multi-dimensional construct that involves being a fully functional person, which goes beyond the absence of distress and the mere enjoyment of pleasure. Hedonic well-being is centred on happiness and pleasure, while eudaimonic well-being is centred on flourishing and personal fulfilment. Overall well-being is directly affected by one’s perceived quality of life and can be measured through physical, psychological and social health.

Moreover, through the virtue of care, genuine care can be exercised by human caregivers, thereby fostering the care recipient’s well-being and causing them to feel truly cared about. Feeling truly cared about produces a sense of strong support from caregivers, which is vital for their well-being. This sense of strong support allows for dependence on the caregiver for help. However, it is not enough that care recipients feel genuinely cared about by their caregivers because the sort of care that is provided needs to be appropriate to the specific care recipient, type of need, and circumstance.

The virtue of care focuses on yielding positive health outcomes for care recipients through actions, emotion, motivations, thoughts, and desires birthed from friendly affection, sympathy and empathy, in collaboration with attentiveness, responsiveness, and respect. Through this, the caregiver effectively addresses, develops or upholds, and alleviates a care recipient's basic unmet needs, capabilities, and suffering, respectively. Caregivers exercising the virtue of care allows for reciprocity and enhances physical, psychological and social well-being, thereby primarily enhancing eudaimonic and hedonic well-being.

For this reason, the virtue of care is required for caregivers to provide proper care for individual care recipients. Therefore, the virtue of care serves two key purposes in promoting the care recipient's well-being, that is, i) foster the care recipient's overall well-being through genuine care, and ii) provide proper individualised care for care recipients.

This chapter outlined the significance of the relationship between the virtue of care and the well-being of the care recipient. Links exist between the key elements of the virtue of care, namely empathy, sympathy, affection, responsiveness, attentiveness, and respect, and the well-being of the care recipient. My two primary claims for this chapter included i.) when care recipients feel genuinely cared about by their caregivers, their overall well-being is fostered, and ii) the virtue of care is required for caregivers to provide proper care to individual care recipients. This ultimately illustrates that care is the master virtue required in caregivers to promote the well-being of care recipients.

I began this chapter by discussing well-being in terms of hedonic, eudaimonic, physical, psychological and social well-being. I followed this by discussing the significance of the virtue of care for well-being, in which I discussed each element individually. Namely, friendly affection, sympathy, empathy, attentiveness, responsiveness, respect, and reciprocity, all in terms of the well-being of care recipients.

Thereafter, I presented my claims in terms of how the virtue of care relates to and fosters care recipient's well-being. I then considered potential objections and counter-argued them before providing key closing thoughts. A key objection included that care recipients can still feel cared about and have their well-being fostered, even when their caregiver is not exercising the virtue of care.

After illustrating the significance of the relationship between the virtue of care and the well-being of the care recipient, I proceed to prove an overall summary in the succeeding section. This summary contains the key points and key claims made in the main sections of this dissertation. I follow this by discussing some considerable implications of robotic care within healthcare contexts and also provide final concluding remark.

6. CONCLUSION

The rationale for this dissertation was to highlight the significance of human care in healthcare settings and potentially inform appropriate regulatory frameworks regarding the value of human care and the potential replacement of human caregivers with carebots. Below I begin by providing an overview of the key arguments supporting the overarching claim of this dissertation. I follow this by discussing some important implications of robotic care within healthcare contexts.

6.1 Overview of arguments

In this dissertation, I addressed the research question: “Is it morally defensible to replace human caregivers in healthcare settings with carebots to provide good care for care recipients?” I argued that it is not morally defensible to because carebots cannot possess the virtue of care, which is vital to good healthcare.

To support this overarching claim, I fulfilled the three key objectives of this dissertation. i) in chapter two, I differentiated between the sorts of care that human caregivers and carebots are can provide. ii) In chapter three, I argued that carebots cannot have the virtue of care, although they may act as though they care through emotional computing. iii) in chapters four and five, I argued that care is the master virtue required in caregivers within healthcare settings to promote the well-being of care recipients and that emotional computing is insufficient care.

In support of these objectives, I had key claims for each. For objective one, I clarified the care that carebots can give and what the virtue of care involves to distinguish between these sorts of care.

For objective two, I defended this argument by claiming that carebots are merely capable of synthetic care, involving acting as though they care through the illusion that they respond to the feelings and the suffering of care recipients. I clarified that this response involves providing physical assistance, virtual emotional labour through emotional computing, and virtual social interactions allowing carebots to recognise and simulate emotions.

I also defended this argument by claiming that the virtue of care requires caregivers to genuinely respond to the feelings and the suffering of the care recipient through friendly affection, sympathy and empathy. I clarified that this entailed that the caregiver must be capable of experiencing true emotions and emotional involvement.

For objective three, regarding care as the master virtue. In chapter four, I first attempted to demonstrate how carebots do not serve the well-being of care recipients through arguing that carebots may mislead some care recipients into believing that they are truly cared for, thereby disrespecting them as individuals since it is a form of deception that undermines human dignity. I followed this with an argument about objectification. I claimed that that having carebots act as though they care is much like treating people as mere objects.

At this point in the argument, I have already provided clarity on what the potential impact is of having carebots act as though they care. I connected this with dignity and argued that the care recipient’s dignity may be undermined because only their physical needs are attended to over their emotional and social needs. This entails a lack of emotional engagement. I also claimed that for care recipients who are aware that carebots cannot genuinely care, may cause them to feel neglected or unworthy of having their emotional and social needs met, which may be harmful to their mental health and may indirectly affect physical health.

Three key claims were made to support objective three in validating robotic care as insufficient care that undermines human dignity and undermines health. First, deception from carebots would undermine the dignity of care recipients. Second, carebots would undermine the care recipient’s dignity by failing to properly foster their independence and emotionally engage with them. Third, carebots would undermine the care recipient’s dignity by making them feel as though they are undeserving of authentic care or as though they are being treated as objects. Through this, I was allowed to focus on how caregivers who exercise the virtue of care partake in upholding the care recipient’s dignity, thereupon improving their well-being.

I further defended the claim that care is the master virtue through arguing that providing adequate emotional care to the care recipient is ethically essential to providing good healthcare, which targets physical, psychological and social needs, to promote or enhance well-being. In validating the virtue of care as the master virtue required in caregivers to promote the care recipient’s well-being, I made two key claims. I claimed that when care recipients feel genuinely cared about by their caregivers, their overall well-being is fostered. I also claimed that the virtue of care is required for caregivers to adequately care *for* and care *about* care recipients, which then upholds dignity and furthers all sub-sets of well-being.

6.2 Implications

Apart from the convenience that emotional computing may offer human caregivers, it also reduces the significance of skilled human labour by condensing human expertise into a minority of elite experts in control of AI (Wachsmuth, 2018). The reduced skill(s) in the field would then require the development of more carebots to compensate for the drop, which would generate a larger issue as more replacements take place. This is because carebots are subjected to expectations of efficiency, which may cause care recipients to feel as though the care delivered to them is similar to a production line. Humans so willingly welcome the replacement or potential replacement of human labour by carebots because it may allow for a more efficient approach to providing care, regardless of the consequences that may follow, such as a subtraction in significant aspects of human interaction.

Caregivers that fail to invest emotional energy into interactions with care recipients may cause emotional disengagement, which may also comprise prospects for human connection, thereby being reduced to caregiver technicians who fall short of compassionate care (Barcaro *et al.*, 2018; Wachsmuth, 2018). Although emotional computing holds the ability to disburden human caregivers from the labour required to provide care for care recipients, it may also inevitably distort care and caring practices (Barcaro *et al.*, 2018; Wachsmuth, 2018).

This distortion may be brought about by causing a loss of or decrease in human contact between caregivers and care recipients, which is vital for the virtue of care, thereby furthering eudaimonia (Barcaro *et al.*, 2018; Wachsmuth, 2018). This form of practical wisdom (human knowledge and understanding sourced from socialisation, imagination, and a recollection of relevant individual or past experiences may be threatened through allowing carebots to provide care for care recipients within healthcare contexts as it pardons human caregivers from the duty to either enhance or develop their own judgment concerning care (Alac, 2016; Coeckelbergh, 2010).

Vallor (2011) voices her stance on this matter by explaining, “carebots might deprive potential caregivers of important moral goods central to caring practices” (p.251). Carebots ethically implicate the potential moral value of caregiving practices for caregivers by blinding us from focusing on the goods internal to caring practices as a result of the striking innovation and convenience carebots offer (Vallor, 2011).

Since carebots are potential replacements for human caregivers in contexts of healthcare, they should be evaluated against human caregivers (Jones, 2017). This is because, even a new standard of carebot capabilities would still not succeed at or hold the potential to succeed at realistically fulfilling the complete criteria of the virtue of care (Jones, 2017). On a different note, they could perhaps contribute toward assisting human caregivers to fulfil their elements of competence, attentiveness, and responsiveness within caring practices through enhancing the human caregivers' skills of practice, which may allow the carebot to be a part of the holistic vision of care (Barcaro *et al.*, 2018).

Understanding both the essence and the existence of human and robotic entities, what they may or may not share in common is important to determine whether humans may reach eudaimonia through emotionally computed care provided by carebots (Barcaro *et al.*, 2018). This would implicate pursuing a goal that may ultimately result in eliminated meaningful human interactions within the realm of caregiving. Nonetheless, if human caregivers do surrender all caring practices to carebots and are eventually replaced by them, they would not be capable of providing better care than human caregivers because they cannot provide virtuous care and also do not hold the potential to do so. This does not suggest that carebots ought to be completely disregarded because the potential impact of carebots on care values and care in the holistic sense may serve differently in various situations of care, for different uses and for different users of carebots (Barcaro *et al.*, 2018).

Carebots are only capable of focusing on any existing data regarding a particular care recipient, which may result in integrating or magnifying any bias without referring to the particular context or case (Coeckelbergh, 2010). Carebots may also compound and intensify human biases, irrespective of their great potential to rectify human errors and enhance the provision of care (Coeckelbergh, 2010).

Decisions concerning the use of carebots and its ethical implications are multifaceted and complicated, the question lies strongly in what sort of care we want to give care-receipts and what specific situation, intention, and users may experience the greatest potential of carebots? Although a thorough evaluation of impending potential capabilities of carebots falls outside the scope of this dissertation, supporters of AI hold that carebots will soon become capable of thought processes similar to humans once more sophisticated and adaptable algorithms are developed since various issues that once appeared insurmountable have had technological solutions devised (Barcaro *et al.*, 2018).

The existing state of affairs does not allow for such a sophisticated means of caretaking by carebots since it is unaware of the purpose behind its actions and holds no motivation towards it, nor the capability to engage in reciprocal interactions (Dal Santo *et al.*, 2013). This suggests that carebots may never hold the capacity to attune to humans to the extent required by good care (Hersh, 2015; Pendleton *et al.,* 2017; Steyl, 2019). Prospects for developing carebots that possess the capacity for emotions, moral agency, and moral responsibility in the foreseeable future are very slight as carebots are rule-based with no emotions and are incapable of engaging in genuine moral reasoning (Coeckelbergh, 2010).

The construction of functional input-output circles comes from the universal notion that every existing phenomenon is capable of being expressed in mathematical terms, such as a carebot with a mathematically embedded algorithmic system that has higher authority functionality for task execution through data analysis (Barcaro *et al.*, 2018; Dal Santo *et al.*, 2013).

However, can emotional computing algorithms truly and effectively be integrated and expressed in mathematical terms to enable carebots to accurately perceive and act as expected through attentiveness, responsiveness, respect, and reciprocity, thereby being empathetic, sympathetic, and affectionate? (Barcaro *et al.*, 2018; Stahl & Coeckelbergh, 2016; van Wynsberghe, 2013). It is important to note that human thought is not merely more complex than machine thought, but rather entirely unlike the sort of intelligence achievable by technology because humans behave according to their consciousness.

Nevertheless, should carebots someday develop the capability to truly experience and express emotions such as compassion or sympathy and empathy, along with the ability to participate in meaningful social relations and understand or possess the same frailties as humans, then there would seemingly be no issue with potentially replacing human caregivers with carebots (Alac, 2016; Baghramian, 2019). Rather, it is reasonable and ethically acceptable to expect human caregivers to possess this virtue as part of the standard of care (Wachsmuth, 2018). Carebots do not possess facsimiles of human emotional fragilities and do not possess the same thought processes as humans, making it unrealistic to expect carebots to offer individualised care to each care recipient. They cannot develop practical wisdom, cannot possess human-like interpretive skills, and cannot truly experience affection, sympathy and empathy for the care recipient, regardless of their ability to act as though they care through emotional computing.

6.3 Final thoughts

Questions regarding the acceptance of carebots and their ethical issues have attracted special interest within the fields of healthcare and bioethics. Carebots are embodied, but inanimate communication and action-oriented mechanical devices that are progressively being introduced into different systems of care, making it important to understand the sort of care they are capable of offering. Understanding this will assist in determining whether any deterioration or restoration of current and forthcoming care practices and care standards may potentially occur. Common concerns involving carebots as potential replacements of human caregivers include the possibility of loss for the care recipients, such as loss of personal liberty, privacy, a reduced amount of human contact, an increased feeling of objectification and loss of control, deception, loss of dignity and the potential for deteriorated well-being.

Carebots possess strengths that human caregivers do not, such as the inability to feel any fatigue, frustration, and anxiety, as well as the ability to evade human error, which makes them especially valuable resources in the healthcare context. Though carebots may effectively meet various basic material or physical needs of care recipients, it appears quite clear that they are unable to do this with needs that can be regarded as immaterial, such as emotional, psychological and social needs.

Carebots cannot care in the same way that humans can, rather, they can act as though they care through emotional computing, which falls short of the virtue of care as genuine responses to the feelings, thoughts, and suffering of care recipients through friendly affection, sympathy and empathy is absent. The synthetic emotions belonging to carebots are rather limited to observable behaviour as they are expressed in robotic facial expressions. Carebots neither experience the emotions that their expressions convey, nor do they experience the physiological reactions that normally accommodate such emotions.

Carebots cannot meet the criteria of a good carer because they cannot encompass a marriage between caring *about* and caring *for* a care recipient. There is a high potential for robotic relations to be inherently deceptive or infantilising. So, the moral question arises as to why the roles and responsibilities of caretaking would even be delegated to carebots.

Despite the possible benefits of carebots, the overall and common ethical concerns include the potential reduction in human-to-human contact, feelings of objectification and loss of control amongst care recipients, a loss of privacy, personal liberty and deception, which may threaten human dignity.

Providing adequate emotional care to the care recipient is ethically essential to provide/promote good healthcare and can only be truly executed by human caregivers through the virtue of care (Pearce *et al.*, 2012).

However, based on recent technological advances, carebots do not appear to be capable of true caring in the foreseeable future (Sparrow & Sparrow, 2009; Wachsmuth, 2018). If carebots are to replace human caregivers entirely, they ought to be evaluated completely against human caregivers and according to how well they may fulfil the criteria for good care, not against how they enable humans in their performance of the practice.

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Appendix A: Plagiarism Declaration

SENATE PLAGIARISM POLICY: PLAGIARISM DECLARATION TO BE SIGNED BY ALL HIGHER DEGREE STUDENTS

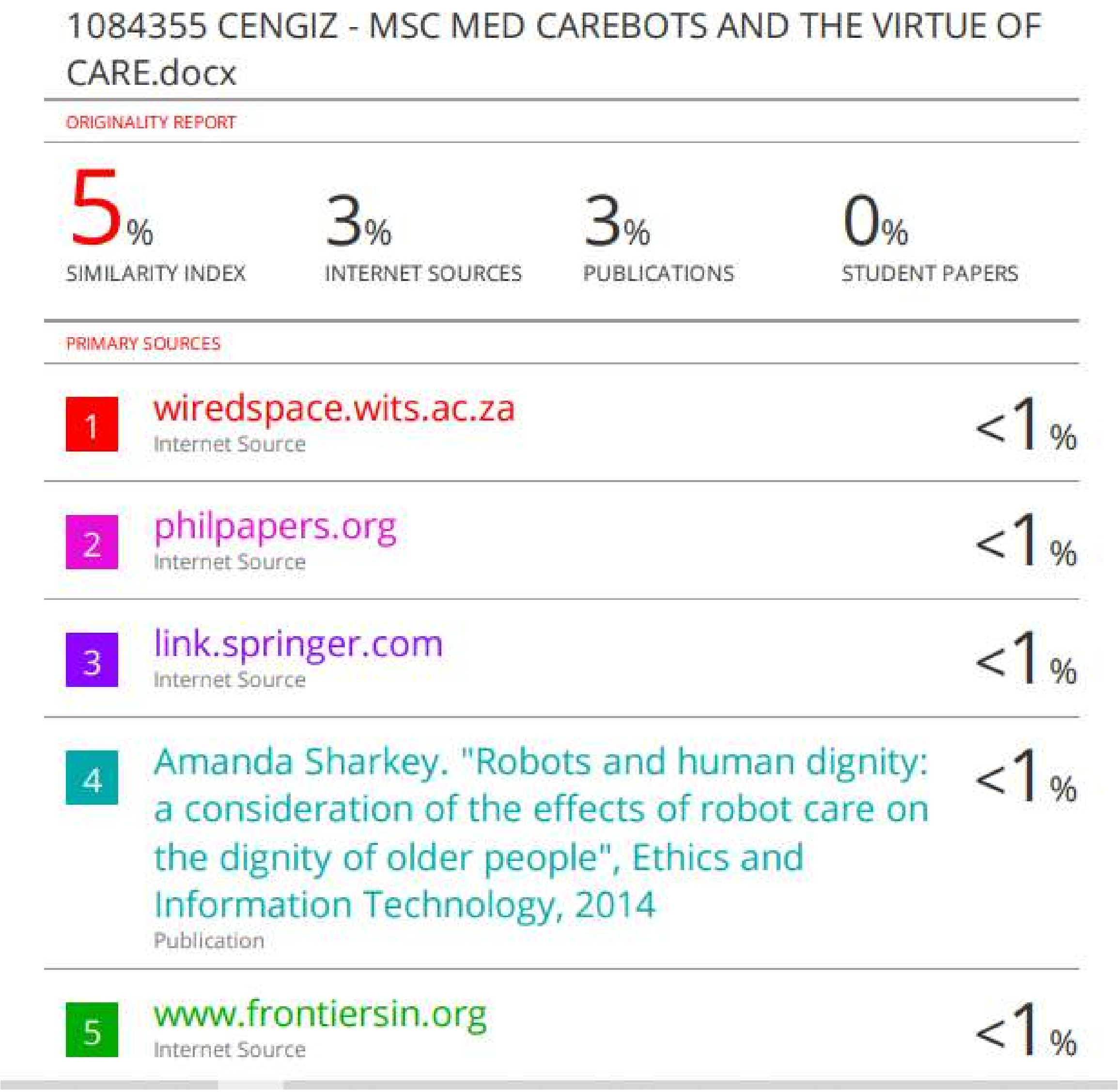
I, Nezerith Cengiz (1084355) am a student registered for the degree of MSc (Med) in Bioethics and Health Law in the academic year 2021.

I hereby declare the following:

- I am aware that plagiarism (the use of someone else's work without their permission and/or without acknowledging the original source) is wrong.
- I confirm that the work submitted for assessment for the above degree is my own unaided work except where I have explicitly indicated otherwise.
- I have followed the required conventions in referencing the thoughts and ideas of others.
- I understand that the University of the Witwatersrand may take disciplinary action against me if there is a belief that this is not my own unaided work or that I have failed to acknowledge the source of the ideas or words in my writing.
- I have included as an appendix a report from "Turnitin" (or other approved plagiarism detection) software indicating the level of plagiarism in my research document.

Signature: Nezerith Cengiz **Date:** 07/07/2021

Appendix B: Turnitin Report



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ORIGINALITY REPORT

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PRIMARY SOURCES

1	wiredspace.wits.ac.za Internet Source	<1%
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3	link.springer.com Internet Source	<1%
4	Amanda Sharkey. "Robots and human dignity: a consideration of the effects of robot care on the dignity of older people", Ethics and Information Technology, 2014 Publication	<1%
5	www.frontiersin.org Internet Source	<1%

UNIVERSITY OF THE
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JOHANNESBURG

FACULTY OF
HEALTH SCIENCES

PROTOCOL ASSESSORS MEETING

Candidate Full Name: Nezerith Cengiz

Student Number: ~~1437619~~ 1084355 Date: 17.7.2019

School / Department / Division: Bioethics

1. Type of study *(tick all that apply)*:

- ○ Quantitative
- ○ Qualitative
- ○ Mixed Methods
- ○ Laboratory
- ○ Clinical
- ○ Other, please specify Normative study

2. Is title of the study appropriate (*preferably fewer than 20 words*)? [✓ Yes] No

Comments:

3. Are the study objectives clear and linked to the research aim and title? [✓ Yes] No

Comments:

4. Is the design of the study appropriate to meet the study objectives? Yes [✓ No]

Comments: Need to define 'care', human care and caregivers - level of Framing of caregiving
Define "caring" Theories of caring must be considered & nursing.

→ define care

5. **Are the proposed methods and tools appropriate to meet the research objectives?** [✓ Yes] No

Comments:

6. **Is the study feasible within the resources of:**
   - a) The applicant? [✓ Yes] No
   - b) The department? [✓ Yes] No
   - c) The time frame? [✓ Yes] No

7. **If this is a PhD protocol assessment:**
   - a) Is the content original? Yes No
   - b) Does the content show the scope and depth of a PhD? Yes No

Comments:

Do you recommend:

i. Additional revision/amendment of the protocol? Please be specific on the recommendations being made:

ii. The appointment of the proposed Supervisor? [✓ Yes] No

Nominee/s:

iii. The appointment of the proposed Co-Supervisor/s and/or additional co-supervisors? Yes [✓ No]

Nominee/s: ______________________

____

____

iv. Has the Chair of the Assessor Group signed the RECOMMENDATION FOR APPOINTMENT OF SUPERVISOR(S) OF RESEARCH REPORT, DISSERTATION OR THESIS form? Please attach. [✓ Yes] No

v. Has the Chair informed the student and supervisor about the Wits ethics requirements, and that if required, they must have either a Wits Human Research Ethics clearance certificate or a Wits Animal Research Ethics clearance certificate? [✓ Yes] No

vi. Based on the protocol provided (including any proposed changes by the protocol assessor group), does the student require:

1. Human Research Ethics clearance certificate	Yes	No
2. Animal Research Ethics clearance certificate	Yes	No
3. No human or animal ethics certificate is required	[✓ Yes]	No
4. Unclear, will seek appropriate guidance from the HREC/AREC committees	Yes	No

vii. Has the Postgraduate student and supervisor/s signed the ethics declaration form [✓ Yes] No

Overall recommendation regarding the protocol:

i. Revision of the protocol to the satisfaction of the Supervisor (**NB: if HoD approval is also required, please specify**): Yes No
*(**Candidate**: one copy, list of corrections with page numbers and Supervisor approval letter – submit to PG Office).*

ii. Revision of the protocol to the satisfaction of the Assessor Group/Chair: Yes No
*(**Candidate**: one copy, list of corrections with page numbers, Supervisor approval letter – submit to PG Office and PG Office to forward to the Assessor Group Chair).*

iii. Revision of the protocol and resubmission of the revised protocol to the next Assessor Group Meeting: Yes No
*(**Candidate**: six copies, list of corrections with page numbers, Supervisor approval letter – submit one copy to PG Office / 5 to school assessor group administrator / for PhD, all six copies to be submitted to the PG Office).*

iv. Candidate goes ahead (*no revision required*): [✓ Yes] No

Details of Assessors:

Name:	Email:	Sign:
Denise Franzsen	denise.franzsen@wits.ac.za	DFranzsen
Jeanine Vellema	Jeanine.Vellema@wits.ac.za	

Details of Assessor Group Chair:

Name:	Email:	Sign:
JE Maree	Lize.maree@wits.ac.za	JEMaree

Date: 17/7/2019