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Painting as a form of Material Thinking: promoting agency and expression for people living with dementia

Abstract

Awareness of the importance of understanding agency and selfhood for people living with dementia (PLWD) is growing. However, more needs to be done to incorporate such awareness into care practices. The importance of arts activities such as music, dance, and painting for enhancing quality of life for people living with dementia is widely recognised. However, research focuses on beneficial outcomes leaving us with scant knowledge relating to the creative processes that PLWD may experience. This paper explores the process of painting for PLWD and offers insight into how engagement with paint and painting materials can explain and embody agency. We argue that the process of painting itself exemplifies a form of embodied agency and cognition, a type of 'Material Thinking', hence helping to demonstrate the thinking skills that PLWD may retain even after a degree of decline of other capacities.

This study outlines how eight people living with dementia engaged with and experienced painting whilst working alongside an artist-researcher. Data was captured through semi-structured interviews, and observations captured by video recordings and field notes. Qualitative thematic analysis identified emergent themes, including Mark Making, Flexible Ideas, and Immersion, in relation to how painting engages the Material Thinking of people living with dementia. Our analysis demonstrates that the process of painting involves distinct forms of decision making, agency, and cognition, even in the absence of language. While having many other benefits, painting has great potential to be incorporated into care practices as a valid expression and recognition of cognition and agency.

Keywords: Dementia, embodied cognition, agency, painting, Material Thinking, decision making, expression.

Introduction

People living with dementia experience various forms and degrees of cognitive impairment. The priority and value placed upon cognition in society, especially language use and purposeful agency, may hence lead to a presumed loss of dignity (Foster, 2016), as well as obstacles to the recognition of the personhood of those living with dementia (Kitwood, 1997; Kitwood and Brooker, 2019). The behaviours and emotions of people living with the condition are often seen as indicative of lack of agency or as symptoms of cognitive difficulties, and purposeful activity may be interpreted as lacking purpose (Boyle, 2014). Indeed, presumptions of the loss of agency can lead to a 'looping' effect further entrenching the view that certain behaviours are indicative of cognitive impairment in ways which may not fully reflect reality (Featherstone and Northcott, 2021).

Attempts are therefore made to counter such presumed loss of dignity in the delivery of appropriate care. There has been considerable attention to the value of arts-based activities for people living with dementia, such as music, dance, theatre, and the visual arts, in strategies to recognise and honour the humanity of the individual person by providing meaningful activity. Research to date assessing this focuses on outcomes and the implications for wellbeing, and indicates that arts activities may have multiple benefits, including enhancing cognition, communication, and memory, as well as encouraging creative pursuits (Smith et al., 2022), and fostering good relationships with carers and others (Windle, Caulfield, Woods et al., 2020).We fully endorse the beneficial outcomes of arts-based activities, but here explore the *process* of engaging in the arts as purposeful and as involving mental activity, in order to deepen our understanding of how engagement in the arts can help to counter any presumed loss of dignity and contribute to the recognition of personhood.

Based upon detailed observations of the process of painting, we argue that the provision of art activities may help to demonstrate the retention of mental capacities which may be otherwise overlooked or devalued under a narrow understanding of 'cognition' which focusses upon language and rationality and on narrow ideas of purpose and agency. There is a widespread and influential understanding of cognition (or, more broadly, thought) which may be contributing to pervasive perceptions of loss of dignity and of personhood for people living with dementia.

A dominant biomedical account of dementia is focused upon the brain as the seat of the mind and hence of the person, and is linked to notions of personhood which focus upon cognition, language abilities, and rational agency (Dennett, 1988; Tooley, 2009). There have however been many well-grounded attempts to counter such approaches to the person and to the mind (Kitwood, 1997; Lyman, 1989). The influential work of Pia Kontos (2004, 2005) draws upon ethnographic observation and theory to argue for an account of personhood which stresses embodied and relational aspects of personhood. Kontos has demonstrated that even after significant cognitive decline an individual living with dementia may retain considerable awareness of others and of their own place in the social world. For example, ethnographic research observing residents in a care home demonstrated that even individuals who had lost many cognitive skills and retained little language could nonetheless observe the social expectations of appearance and dress and of appropriate behaviour at mealtimes in a manner which demonstrates a level of awareness and sophistication which might be overlooked were one to focus on a person's cognitive shortcomings.

We draw upon and extend such work by reference to complementary work in art theory outlining 'Material Thinking' (Carter, 2004). Capacities which are retained but overlooked in people living with dementia may arise from deeply learned bodily memory expressed through habitual rituals and routines of social life (Bourdieu, 2018). But in addition, we consider that close attention to the process of painting can demonstrate retained capacities for new thoughts and novel creativity, also expressed in embodied form through the interaction between the person and the materials of the art. 'Material Thinking' is a general concept embracing capacities for thought and creativity within the embodied practices of art, which we explain in more detail below. The processes of engagement in Material Thinking will vary between art forms according to the material aspects of their execution. Here we focus on one art form, that of painting, for various reasons including the malleability of paint. Close attention to the process of painting will reveal that it provides an opportunity for agency, for creative expression, and for thought processes which may otherwise go unnoticed.

Kontos (2003) examined the later paintings of the established artist William de Kooning, produced after his dementia diagnosis, which differed in key respects to his earlier body of paintings. One view of his later paintings is that they represented only a degraded form of de Kooning's abilities, produced from habitual familiarity and little else. In contrast, arguing that de Kooning's later paintings exhibited continued creativity, Kontos expresses the idea that

"the presumed existential erosion of agency with Alzheimer's disease is more the result of philosophical inheritance than exclusively of neuropathology" (Kontos 2003, p. 152). We look at the processes of the work of those who are not established artists to argue that the painting of people living with dementia, even those who have never achieved a high level of artistic skill, can nonetheless demonstrate the presence of thought and creativity in their painting rather than simply the less purposeful execution of habitual knowledge.

In subsequent work by Kontos and by others, an approach is adopted that challenges a sharp divide between the body and the mind, and which acknowledges the pre-reflective body as a way of providing intentional and self-expressive purposes (Fuchs 2012, 2020; Kontos 2004, 2005). This provides agency and autonomy within a shared reality, and is of particular importance for people living with dementia for challenging assumptions and providing a means of expression and agency, such as facilitating opportunities for decision-making which may be otherwise reduced if a person is experiencing cognitive impairment (Mitchell, Du Puis, Kontos et al., 2020). Much of this body of work references the philosopher Maurice Merleau-Ponty, who stresses the body not as something that our minds and brains just happen to inhabit, but as itself possessing intentionality, meaning, and agency (Fuchs 2021; Kontos 2004, 2005; Merleau-Ponty 1962).

Hence in discussing the thought processes involved in engagement in the tangible and material form of painting, we consider ourselves to be endorsing and extending the work of those who argue for an embodied and relational approach to personhood and for the importance of social cognition. It should go without saying that the dignity inherent in personhood merits recognition even in the presence of the diminution of powers of cognition typical of dementias. Nonetheless, recognition of the potential of painting as a medium of thought and creative expression is significant. Dignity may be owed to an individual in theory, but in practice needs to be given concrete expression and recognition. The potential of an arts activity such as painting to reveal personality, individuality, thought, and creativity, can both help achieve this and add richness and understanding to the relational aspects of personhood in the enhanced interactions with others that may result.

Some background from cognitive science

Ideas arising within the field of art practice resonate closely with theories arising within cognitive science, philosophy, and neuroscience; dementia is a multi-faceted condition and

one of our aims is to build bridges between different areas of inquiry which may be working separately but in complementary ways. To add further background, and to add credence to the general idea that cognition may manifest itself in relation to an organised relationship with the external, material, and perceptual world, we briefly refer to work in what has become known as '4E' (or even '6E') cognitive science (Newen et al., 2018). Space does not permit a complete account of this complex, fast-changing and controversial interdisciplinary area, but cite it as a source of support for some of the ideas behind Material Thinking. Significantly, like Kontos and others, many of those working within the broad umbrella of 4E cognitive science also refer to the work of Merleau-Ponty, who in turn drew upon 20th century research into the psychology of perception which challenged the view of the mind as residing wholly within the brain, as if somehow separate from the external world. The ideas of 4E cognition apply to the mind in general, but may be especially pertinent for understanding both certain forms of cognitive impairment, and the forms of cognition that may occur in creative pursuits.

Indeed, it has already been suggested that 4E cognition may have lessons for how we conceptualise the condition of dementia, pushing back against purely biomedical models (Fletcher, 2023). Moreover, a recent narrative review article on aspects of embodied cognition in neurodegenerative disorders (including dementia) found considerable evidence of deep connections between the body and mental functions such as perception and reasoning, with connections operating both from body to mind and from mind to body (Maggio et al., 2022). This review found that although some aspects of embodied cognition may deteriorate in neurodegenerative disorders, nonetheless, even after the deterioration of other cognitive faculties, certain aspects of embodied cognition may remain.

Although 'embodied cognition' is often used as a term to embrace the whole of this complex field, distinctions are made within the field: under 4E cognition, these are embodied, embedded, enactive, and extended cognition. '6E' cognition also includes emotional and evolved cognition (McCauley, 2023). These elements raise related but different points, to which we will refer in the analysis of our findings.

'Embodied cognition' is used to express the general claim that the body as a whole – as opposed simply to the brain, central nervous system, and sense organs - is literally a constitutive element of cognition.

On some accounts of extended cognition, cognition may even extend beyond the body, for example, incorporating tools themselves as part of our cognitive systems, although this claim is controversial. For example, a man living with Alzheimer's disease uses a notebook to write down directions to an art museum rather than relying on memory; the view may be presented that the man's memory is literally outsourced to the physical world in the form of the notebook (Clarke and Chalmers, 1998). Indeed, following the invention of writing, let alone smart phones, such outsourcing is routine for most of us. We will consider whether the materials of painting might likewise be in some manner constitutive of, or essential for, cognition in a form of extended cognition.

Embedded cognition notes that the cognitive load of a task can be reduced in an appropriate environment, increasing cognitive capacities when interacting with a suitable setting and enabling an embodied perception of the parameters of a task. For example, considering a task involving fractions while also handling appropriate objects may ease cognitive load and enable understanding (Martin and Schwartz, 2005). Whilst it is claimed that embedded cognition operates generally, such findings may be especially relevant to those who find certain tasks more challenging, as may be the case with people living with dementia (Clarkson et al., 2022).

Enacted cognition holds that cognition arises from, or consists in, sensorimotor activity, suggesting that a primary mode of our cognition arises directly in response to perceptual and motor activities in the world. This is of particular interest in respect of activities such as painting. As well as referring to empirical work supporting the idea of enacted cognition, it is observed how much our perception depends upon our capacity mentally to place ourselves and our bodies in relation to the objects perceived, and how much of our language of understanding relates to the notion of being able to 'grasp' ideas (McGilchrist, 2019, Merleau-Ponty, 1962). This work thus may endorse and help to confirm and extend ideas such as Heidegger's notion of 'Handlability' (see below for a discussion of this concept), as well as the work of phenomenologists such as Merleau-Ponty.

Person-centred care for people living with dementia should aim to encourage capacity to make decisions where possible. Yet it is often assumed that making a decision is a purely cognitive process involving explicit thought processes. However, work on embodied cognition now recognises that sensorimotor processes form a foundation for the complex of

physical and mental processes involved in our decision making (Connors and Rende, 2018, p.2) and again this echoes the work of Merleau-Ponty (1962).

For our purposes here, it is important to note that much of the work to date which draws upon notions of embodied agency, intention, and personhood in relation to dementia may present this *as distinct from* cognition per se, positing that the body expresses intentionality in a manner which operates *outside of* cognition. Although we greatly value this body of work, we suggest that we also need a broader understanding of cognition which embraces and includes agency, intention, and creative thought processes arising out of both the body itself and the social and material world within which the body finds itself under the broadened umbrella of cognition, as suggested by much work in 4E and 6E cognition.

In summary, we aim to make a contribution towards taking the broad idea of embodied cognition seriously, in turn to help to counter narratives dehumanising to people living with dementia. Understanding the role that creative and practical tasks may have in manifesting and expressing agency may help to encourage those caring for people living with dementia to utilise such activities, and moreover, to see them as enabling genuine manifestations of individual agency, cognition understood in a broad sense, and autonomy. In discussing our findings, we will indicate some possible means by which different elements of 4E cognition may be indicated within our results.

Material Thinking, painting, and dementia

In her examination of de Kooning's later work, Kontos argues that "the body can be a source of inventiveness and creativity inviting us to understand the body as active, that is, imbued with a life force that has its own intentionality" (Kontos, 2003, p.166). She writes "…even if Alzheimer's had robbed him of his conscious will, it was de Kooning's hand, ‘‘intrinsically painterly,'' that allowed his creativity to persist nonetheless" (Kontos, 2003, p. 166). Kontos thus appears to argue that it was de Kooning's decades of work as an accomplished painter that enabled creativity to endure, albeit in a somewhat different form to his earlier work. Some habit of creativity, so deeply ingrained in the artist, somehow manages to persist within this exceptional individual, despite significant decline in other areas of functioning.

In de Kooning's case this could well have applied. But in contrast to the exceptional, what of the ordinary? As we shall attempt to demonstrate, the processes involved in painting may

pertain not solely to exceptional artistic skill and experience, but to the manner in which intention, agency and personality can be accessed through ‘Material Thinking’ in ways that are open to a very wide range of individuals, including not just amateur artists but to both those with and without dementia.

The term ‘Material Thinking’ describes knowledge gained through the physical act of engaging and handling materials when making artwork. Although Material Thinking may be difficult to explain verbally due to its very nature, it is an important form of knowledge which can offer distinctive modes of engagement and experiences for the creator. An understanding of Material Thinking can help to enrich our understanding of embodied agency and selfhood.

Bolt (2006) stresses the fundamental role in the process of making art of knowledge and learning developed through the physical act of making, a kind of knowledge which may resist verbal articulation. This builds upon Heidegger’s concept of Handlability, the idea that learning about the world first occurs through the physical handling of a material, not via conceptual thinking, and is hence a form of knowing which is neither cognitive nor linguistic. Once we have engaged with a material through handling it, we can then develop theoretical understandings of the world around us. Echoing Merleau-Ponty, the embodied experience of the materials of creative expression refers not just to our own embodiment, but to the intimate link between our bodies and the materials with which we engage. This perhaps then sits within a form of both embodied and extended cognition.

Heidegger (1954) provides insights into the inextricable relationship between artists and materials. To create a painting, both an artist and the material of paint are essential (Bolt, 2014). The co-emergent relationship between artist and material provides a form of understanding that is distinct from verbal communication and linguistic knowing. A creator may or may not have some pre-existing understanding of the materials through previous engagement. However, it is crucial to recognise that although it is possible to contemplate ideas about the development of an artwork, *it is only once engaged in the physical act of making that there can be a true understanding of the material being used*. Consequently, it is not simply the artist alone who is responsible for the emergence of the artwork, it is derived from the combination of the ‘artists, objects, materials and processes’ and generates a distinctive form of tacit knowing (Bolt, 2006).

Tonkinwise (2008) provides further insight into this distinct and personal form of knowledge by stating:

> …knowledge of making cannot be extricated from the specificity of its material context. Making might therefore be a type of localised knowing, but as non-abstractable, it must be kept distinct from the knowing that lies at the foundation of the university. (p. 3)

The quip that this localised knowing must be kept apart from knowledge "at the foundation of the university" may help explain its lack of recognition and the dominance of models of the person which focus upon reason and a narrower sense of cognition. Although this form of knowing may be hard to communicate, it facilitates a confidence in what or how to paint and also how the painting feels upon reflection (Tonkinwise, 2008). Consequently, the creator can feel a sense of certainty and of immersion even if unable to express verbally the purpose of the work, and can form an extension of their emotional being into an inanimate matter.

Aligned closely with Material Thinking is the notion of the 'in-the-moment' experience, which, based on our research and analysis discussed below, we argue can be facilitated through the engagement of paint and subsequent Material Thinking. An in-the-moment experience is an immersive experience with full focus on the creative task within a complete lack of awareness of external realities. This relates to Csikszentmihaylyi's theory of 'flow' which in simple terms involves an individual being completely immersed in the present moment. (Nakamura and Csikszentmihalyi, 2014).

Killick and Craig (2012) advocate the importance of in-the-moment experiences within creative activities for people living with dementia. When a person is experiencing flow, they respond to what has occurred within the process directly beforehand, rather than being driven by an already established plan or idea. The inspirations for this process are therefore derived from "inner resources discovered at the time rather than any remembered capacities" (Killick and Craig, 2012, p. 27). People living with dementia are often forced into living in the present moment due to the cognitive decline associated with their dementia. The facilitation of in-the-moment experiences through engagement in a creative task could, therefore, promote a sense of purpose.

The importance of colour is also highlighted within these creative experiences as it can help those affected to communicate who they are and something individual to them (Killick and Craig, 2012) and can be experienced and responded to directly 'in-the-moment'. Although there are few studies which explore the experiences of flow for people living with dementia, it is apparent that an in-the-moment experience or experience of flow through engaging in a creative task can provide new experiences and forms of engagement which may not necessarily be accessible through other more logical or verbal modes of thought (Wyatt, 2019).

Methods

This paper is part of a larger study which explored how people living with dementia engage with and experience painting whilst working alongside an artist-researcher (AR) (Wyatt, 2019). The aims of the present study were to offer insight into how people living with dementia engage with Material Thinking whilst painting.

People living with dementia can often experience a decline in verbal ability which means that there needs to be consideration and inclusion of investigative methods which do not rely on linguistic capabilities. There can sometimes be challenges associated with involving people living with dementia in research. However, inclusion of this group can benefit participants involved, decrease stigma, and can be used to develop dementia care and services (Cridland et al., 2016). This study investigated painting to promote 'expressive possibilities' of participants which may have otherwise not been achievable (Eisner, 2008, p.4). This approach acknowledges the possibility of non-linguistic knowing, and that experiential and tacit knowing can provide a unique perspective (Niedderer and Roworth-Stokes, 2007).

Four female and four male individuals living with dementia were recruited through a local Arts in Health Initiative which provided weekly arts workshops for people living with dementia and their care partners in a gallery setting. The local arts programmes had established the following inclusion criteria: Participants must have received an official diagnosis of dementia or be the care partner of an individual living with the condition, and individuals needed to live within an identified geographical location. This study, however, focussed predominantly on individuals living with dementia. Participants could attend with or without their care partner. The particular form of dementia that each participant was living with was not known.

Ethical approval was given by Wrexham Glyndwr University Research Ethics Committee. Prior to taking part, individuals provided consent. All data was anonymised, and pseudonyms are used.

Prior to the research, the artist-researcher volunteered at the Arts in Health Initiative for a six-week term. Although participants within the group varied, it enabled the artist-researcher to build rapport with individuals and gain a deeper understanding of participants' needs and preferences. The artist-researcher then delivered a group session with those interested in participating in the research, whereby individuals were invited to produce paintings based on an existing exhibition of the artist-researcher's work.

All eight participants and their care partners (if appropriate) were invited to an individual painting workshop lasting for one hour each at the art gallery where they attended weekly arts workshops. This offered familiarity with the space, location, and facilities. Timings of each session were adapted to participants' needs and preferences. Materials used were non-toxic and a wide range of paint colours was provided to promote free expression. Acrylic paint was used because it is water-soluble, flexible, and dries quickly. It can readily form opaque areas of colour, as well as more transparent washes. Colours mix easily, and once dry, areas can readily be painted over. It thus has many possibilities for use. A choice of paper or canvas board was given. The study utilised an adaptive approach whereby the artist-researcher was flexible and responded to the abilities of each individual. The one-to-one approach allowed the artist-researcher to quickly and appropriately respond to any needs or challenges.. It was also agreed that data collection would be postponed if participants appeared to be experiencing any concerns or distress. This however did not happen during any of the workshops.

Symptoms of dementia are individual and can be unpredictable (Alzheimer's Society, 2025 a). Consequently, this research utilised a qualitative and flexible approach to facilitate an inclusive environment and the opportunity to explore complex issues (Cridland et al., 2016). Participant observation was used to gain deeper insights into the experience and creative process of participants (Guest et al., 2013). To explore the phenomena in question (Pentassuglia, 2017), this research utilised observations taken through video recordings and field notes and the artist-researcher conducted an individual semi-structured interview using a loose guide during each of the eight art workshops to allow participants to express their

personal views and experiences. Questions covered broad themes such as colour, mark making, and inspirations for their painting.

Participants had varying verbal abilities and so it was important to capture any verbal communication about their experiences whilst painting. Conversations were adapted accordingly through redirecting conversations to ease any anxieties and simplifying how questions were asked (Beuscho and Grando, 2011). Open questions were used to develop conversations around new topics and subsequently gain a deeper understanding of participant's experiences. Closed questions were also used as people living with dementia who experience verbal difficulties often respond better to closed questions (Strauss, 2001). Furthermore, the process of painting allowed new and more personal avenues of conversation to develop over the course of the session. Questions and comments were developed by the artist-researcher in response to any verbal communication that participants made about their painting. Each of the eight individual painting workshops was video recorded to capture each session so the artist-researcher could fully focus on the session and respond effectively and quickly to participants' needs. This enabled rich observational data in watching each session after each workshop.

Data from the interviews were transcribed verbatim. Videos were watched by the artist-researcher and in-depth observational notes of participants' painting processes were typed and recorded. These were then combined with corresponding sections of the interview transcriptions to provide written data relating to each participant's painting process and experiences within the workshop.

A six-stage thematic analysis framework was then used to analyse all of the data (Braun and Clark, 2012). Initially the artist-researcher ensured that she was familiar with the data and produced initial codes. NVivo was used to code each line of the data. The codes that were developed were inductive and applied to appropriate areas of text. As this process developed, multiple sections of data were applied to the same code. Code names were expanded to encompass broader topics within the data set. Similarities and patterns were then identified within the data to provide relevant themes which answered the research question. The artist-researcher then reviewed themes and ensured that they reflected the appropriate data and that the title of each theme reflected the information within it. Analysis was completed by writing up these findings under the different theme names.

Results and Discussion

Mark Making

Close attention to mark making shows how participants were engaged in the material possibilities for expression of their materials as an intimate aspect of their engagement with the process of painting. This can be understood as a form of knowing.

Flossy, Rose, Norman, Daisy, Peter, Michael, James and Poppy all made a variety of marks and engaged with the paintbrush with little support from the artist-researcher.

For example, Flossy used her fingers to make the tip of the brush into a point. She then proceeded to dip the brush in a bright yellow paint and apply very small repeated delicate marks which she described as flowers. Her painting also included more fluid lines which she applied in a quicker manner by dragging the paint along the paper with her brush.

Rose used a wide range of marks to create her painting. She initially applied quick free-flowing marks to her paper. She added a green paint to her brush and quickly applied this to the paper by adding a series of long curved repeated lines. She appeared to be completely focussed on this process and then once finished making these marks, looked at the artist-researcher and smiled. She then began to stipple the end of her paintbrush to make smaller blue marks on top of the pre-existing marks. She applied smooth strokes of yellow paint to fill in a sun-like image and then dragged the paint outwards to create the sun beams. She regularly turned her brush to make different thicknesses of paint. Rose used a pencil to make a cloud shape and then used free-flowing painted marks to fill in the shape. Whilst doing this she said: “I might as well slosh it on [...] I find this very satisfying”. Once Rose had finished filling in the cloud shapes, she proceeded to add long smooth strokes of green into the bottom section of the painting, overlapping the green marks she had previously made. She then commented:

> I do, I not only find it relaxing, I find it, the picture that’s in my head is cheering me up, I mean it’s not exactly coming out because I’m not a talented painter you see, but I think that actual painting like this is relaxing, you see the very stroke gives it expression.

Throughout the session, Norman's application of paint appeared very slow and considered and he repeatedly manipulated the paintbrush to create different marks. He chose to use a small flat-tipped brush and as he painted, he twisted the brush handle to provide different thicknesses of marks. He varied the amount of water on his brush and would often wipe excess paint off his work to provide fainter or bolder effects. Once the paint was applied, he would also intently look at the marks he had just made. At times he would then wipe the paint off the paper. For example, Norman commented, "and I'm going to wipe that" and then proceeded to carefully wipe away some of the applied paint with a tissue. It was observed that during these times, Norman looked intently at his painting and applied the paint in a very slow manner. This suggests that he was concentrating and applying the marks in a considered way.

Daisy did not verbally communicate about her painting. However, she regularly rotated her brush in her fingers to create different thicknesses of line. It was observed that she appeared confident in this application and once she was engaged in the process, required little support from the artist-researcher. Daisy's application of the marks was rhythmic and she worked very quickly, producing three paintings in total. She would start each painting by applying paint at the top of the paper and then would drag the different coloured paint down in different waved forms. She would regularly add paint to her paintbrush to allow these strokes to glide across the paper smoothly. She would then at times stop her focus on the painting and look at the artist-researcher and smile.

Peter applied a variety of marks, some rapid, others slower and more considered. He initially painted small rectangular shapes without adding any water. This created precise marks and Peter would spend a long time straightening the lines of each rectangular shape with his paintbrush. He then began to add a lot of water to his brush and to create more free-flowing red marks across the canvas. This caused the edges of the previous existing marks to bleed into the water. He then proceeded to apply a freer triangular mark to the bottom and sides of the canvas. He then again added water to this and dragged the paint across the canvas board to create a transparent wash effect. It was observed that this process was free and uninhibited.

Michael, James and Poppy all applied repeated small marks to their paintings. Initially, Michael used different parts of his brush to apply the paint, however as the session progressed, he applied smaller and repeated marks of a similar type onto the paper. His actions were very rhythmic and quick and he did not speak whilst doing this. Poppy and

James also applied repeated small marks but both were slower and appeared to be more considered in where and how they applied them. Poppy also regularly manipulated and twisted the brush in her hand.

James was very slow and appeared very considered in his application of paint. He used repeated small marks to build up the image of a man-like figure. He repeatedly dipped the brush in water or paint and then dabbed it onto a paper towel to get the right consistency of paint. He again used different parts of the brush to apply different shape and size marks. Part way through the session, he began to apply small, repeated marks to his work. His action was quick and rhythmic and he proceeded to do this for the remainder of the session.

The manner of mark-making is unique to different individuals. Although the reasoning behind individual mark-making may be difficult to verbalise, this is something known and understood for the artist who is engaging in the painting (Blannin, 2016). Bolt (2006) provides further insight into mark-making by suggesting that people experience a receptiveness and mode of knowing when physically engaging with a material. It is only once the individual engages with and handles the material that they can truly understand the creative process. Painting facilitates an extension of oneself into an inanimate matter, in this case paint (Tonkinwise, 2008). Painting was specifically chosen for this study due to paint's intrinsic malleable qualities. The impressionable qualities of the paint can pick up the smallest action, making it an intense and expressive form of communication (Elkins, 1999).

Knowledge gained through the process of painting is distinctive, individual and local (Tonkinwise, 2008) and involves our tacit knowing from being in the present moment of making (Bolt, 2006). As outlined above, when learning, knowledge is initially generated by the physical handling of a material rather than explicit conceptual thinking (Heidegger, 1954). It is only once the actual physical engagement with the material occurs that a true understanding of the creative process happens (Bolt, 2006). This mode of knowing arising from physical engagement with a material is universally accessible and is not specific to individuals living with dementia; however, the manner in which it bypasses the need for verbal communication may be especially important for individuals such as those living with dementia.

Moreover, by providing a suitable environment for interaction, namely, the physical form of the paint, the brushes, and the surface, this may constitute a form of embedded cognition,

whereby the cognitive load of a task can be reduced, and understanding can be gained or enhanced, which is again especially important for people living with dementia. The physical handling of the paint and manipulation of the paintbrush itself supported participants to access a new form of knowing which resists verbal articulation and at times rational thought. For people living with dementia, then, exercising these forms of cognition through the handling of paint has the potential to promote understandings and meaningful engagement.

Furthermore, it can be suggested that enacted cognition also arises due to the perceptual and sensorimotor aspect of the painting process, again meaning that the process of painting and the physical handling of art materials enables an opportunity to exercise cognition. All eight participants manipulated the paintbrush with no verbal communication or prompting. For example, Michael stated that he was in a space where he did not know what he was painting, but he confidently manipulated the brush to create different shapes and depth of mark. We have seen that detailed and minute attention to the relationship between the brush itself and the paint occurred for many participants. It would appear that through manipulation of the paintbrush itself, and embodied experience of the resulting impact upon the paint and mark-making, that participants were engaged in active Material Thinking as their work developed.

Merleau-Ponty considered that language extended beyond the formal meanings of words to encompass embodied and gestural manifestations (Kee, 2018). In such a way, then, perhaps we can understand the motions and manipulation of the brush and paint as a gestural form of language and communication. Understanding how Material Thinking within painting can encompass knowledge can offer insights into how genuine agency, personhood, thinking, and autonomy can be manifested in people living with dementia.

Flexible ideas

The theme of flexibility in ideas during painting can provide grounds for considering that creative Material Thinking was present in the process of painting for many of the participants, in the execution of ideas as these developed and as participants moved between certainty and uncertainty about their paintings.

Findings suggest that five of the eight participants had feelings of both certainty and uncertainty about the painting process and subsequently, the subject matter of their painting. These involved participants communicating that they were painting something specific, to

then moving into a space where they acknowledged that they could not articulate why they were applying a mark in a certain way.

Michael initially spoke about how he was painting his partner's jewellery box and that he had wanted to do this for 'ages'. Although at first methodical in his process, Michael then started to create more free-flowing marks. Michael applied a coloured paint to the paper and then quickly moved his hand in short sharp motions in different directions, dragging the paint in different ways across the paper.

He then stated:

> This has been something that has taken my imagination [...] because there was no set pattern at all when I started and there's no set pattern on the completion of it, it's just what I've done........... I've done it as it comes along.

This was similar to Peter who, it was observed, had a systematic approach to his painting. Peter spoke about the systems of computers and his work in computing. As he talked, he applied the methodical series of rectangles down the canvas that appeared to be inspired by his discussions about early computer systems. Peter started to create some more free-flowing marks, and the following conversation ensued:

> AR: That's looking good.
>
> P: Is it? I don't know what it is, I don't know where it comes from, I did a square-ish thing at the top and now it's just happened.
>
> AR: It's a good thing about painting, you can just do what you feel like.

Likewise, as we saw above, Rose expressed how satisfying it was to 'slosh it on' when making free-flowing marks. Once Rose had painted cloud-like shapes she added long smooth strokes of green into the bottom area of the painting, overlapping the green marks she had made earlier. Rose then commented that the 'picture that's in my head' was not coming out precisely as she wished, attributing this to her lack of talent, but nonetheless found the process cheering and relaxing, indicating a tolerance for flexibility in the finished painting.

The subject matter of Norman's painting developed throughout the session. It was observed that Norman had a good knowledge of painting and had developed the skills to draw realistic imagery. Norman was very articulate during some of the session, commenting that he was drawing a face: "No just a face, and they will be all different of course, that's what I'm going to do". This then progressed into Norman describing how he was painting a dog. When asked by the artist-researcher if he had any pets, Norman spoke animatedly about how he used to have a pet dog that made him laugh.

At one point in the session, however, the artist-researcher asked Norman if he had "any idea what the painting was turning into". Norman responded "No, I'm just messing about". Once the session was nearing an end, Norman looked at his painting and questioned what it was. He then commented: "Yes clowns, well this is one of them... there's nothing like painting and then deciding what it is after. It started off as a dog and now we've got a clown ..."

Flossy also moved in between describing how she was painting specific elements of her garden and also repeatedly saying: "I don't know what I'm doing". She described how she was painting aspects of her garden such as a 'seat' or different types of flowers. During a time of uncertainty for Flossy, her care partner suggested that she paint a birdbath as she had one in her garden. Flossy questioned how to do this and her care partner responded, "Picture it in your mind".

Flossy then replied "Oh yes and then it goes down". She then raised her arms up in the air and drew a shape with a paintbrush in mid-air. She then began to paint the birdbath. Later in the session, Flossy asked the artist-researcher, "What do you reckon I'm painting here?" The artist-researcher replied, "It looks like a seat" and Flossy stated, "Oh, it can be a seat, yes it looks like a seat with trees around it."

Flossy then asked, "Does it look like my garden?" and her carer responded, "Yes, you've got lots of trees in your garden, your daffodils and your pansies." Flossy had painted a garden scene with yellow and pink flowers.

Observation showed that, for five of the eight participants, ideas about their paintings moved between feelings of certainty and uncertainty in what they were painting. The move from uncertainty to certainty can be understood as an opportunity for decision-making.

Four participants appeared calm when moving in and out of certainty and uncertainty. However, at times, Flossy appeared anxious and repeatedly commented that she didn't know what to do. Flossy's anxieties appeared to be associated with concerns about expectations, not knowing what to do, nor how to meet expectations. When engaged in the painting process, she appeared calm.

Rose commented that her picture was of her garden, but then also described that she was unsure of what she was doing and that she "might as well slosh it on" (see above) indicating ease with uncertainty and experimentation, whilst Michael commented that although he had begun the session with a pre-conceived idea, the painting he then produced had been something that had "taken his imagination". Peter described his painting as something which "just happened" and Norman was "messing about" as his painting moved from a face to a dog to a clown. Flossy appeared content to let her painting develop with input and suggestions from her carer. Such flexibility and experimentation in the process suggests creativity in the act of painting embodied in the direct perceptual and sensorimotor interaction with the materials of their work.

Participants within the study were invited and supported to paint whatever they wanted. This was designed to encourage participants to relax to help enable individual expressions and styles to emerge (McNiff, 1992). Support was provided on an individual basis and the artist-researcher used their experience of similar work to guide participants in a person-centred way. This approach to facilitating an arts workshop enabled what McNiff calls a 'moment-to-moment' (or 'in-the-moment') experience whereby participants could focus on their own individual style and experiences (p.14). Painting is an individual activity, with each person working on their own piece of paper or canvas, and hence without any imposed limits to their creative possibilities and no reason for concern that anyone else might be impacted if they did anything 'wrong'. One might speculate that for some people, this could be a factor in being able to tolerate uncertainty with anxiety absent or reduced.

Self-expression through painting can facilitate conscious and unconscious experiences, which if embraced can create a novel experience for the creator (Milner, 2010). Painting can encompass a flexible approach whereby feelings of 'wrongness' or unknowing can be embraced and developed into new ideas. This, in conjunction with the feelings of certainty and understanding of the material possibilities of the art that can be acquired when engaging with paint, can provide a liberating focus on how the painting develops rather than a

constraining concern on things that feel ‘wrong’ or ‘incorrect’. The malleability of the paint supports these new routes of freedom and expression and accesses a form of engagement and knowing that in other aspects of life is often otherwise denied. Through the physical act of engaging with a material, in this case painting, participants were provided with an opportunity for exercising agency via the numerous acts of decision making and reflection.

In general, disinhibition in painting can be hard to embrace, due to preconceived feelings of rules and expectation (Kuspit, 2000). However, for people living with dementia spontaneity when painting may be more readily accessed, as notions of rules, control, and expectation may no longer be as strong due to progression of the condition (Alzheimer’s Society 2025 b). The nature of painting itself therefore centres on a mode of knowledge which is focussed in the present moment and does not rely upon preconceived notions or ideas. The immediate engagement with the materials and subsequent Material Thinking provided a platform where no preconceived ideas are needed. Indeed, the potential lack of inhibition that people living with dementia experience may be a positive asset when painting, and allow for free decision-making in a safe and productive environment. This should be taken advantage of within care practices. This supports and builds upon Kontos’ (2003) notion that the body is a source of imagination and ingenuity which can be tapped for all of us, including for many who are living with dementia.

This paper suggests that although participants could engage and paint in an area that was beyond their rational thought or any clearly articulated and executed plan or action, this engagement and cognition was more than mere habitual memory related to the body. It has been convincingly argued that we all possess memory based upon the habits of the body as it relates to the social world and to the wider environment, as distinct from explicit recollections of the past (whether recent or distant), and that such body memory supports an extended self-experience hence grounding the continued identity of the person (Fuchs 2012, 2020). For those who are losing other forms of memory, it is especially beneficial to recognise and value this form of memory. Body memory of socially appropriate behaviour places the person living with dementia as an individual within a continuing and valuable social world (Kontos 2004). Body memory could be one factor at play in the paintings produced here.

Yet, in addition to the workings of body memory, close attention to the fine-grained way in which the participants were attuned to the capacities and potential of the materials, brushes,

paint, and paper or canvas, shows more than habitual memory of well-established practices. Creative thinking was occurring in the handling of paint and equipment. Moreover, the 'messy' nature of the materials, the uncertainty and experiment afforded by this – uncertainties which participants embraced and explored – emphatically suggests that more than habitual body memory is in play: rather, creative, Material Thinking is presently underway. Each experimentation and trial with the impact of brush and paint on paper and consequent willingness to engage in moment-to-moment development of the work, which we have seen in the detailed results described above, helps to illustrate this creative process. The malleability of the paint and engagement with it for people living with dementia has the potential therefore to provide forms of knowing that do not rely on verbal communication.

It is the physical engagement with the paint and the materials of painting that provides this form of cognition and understanding of the world around us, rather than a reliance on habitual memories or our own conceptual thinking (Bolt, 2006). What's more, the painting process does not merely provide a means of engagement or entertainment, it forms an avenue of learning through the creative process (Bolt, 2006). For people living with dementia who may find learning difficult, painting has the potential to open up new understandings.

What is important to reference is that the process of painting encompasses both pre-existing understandings and these feelings of learning and knowing that move beyond the 'rational mind'. For people living with dementia whose thoughts and feelings are often in a state of flux, painting can embrace all of these transitions in thought to provide an engaging experience where there are no rights or wrongs. It is suggested that this openness to certainty and uncertainty is demonstrated in several participants, such as Michael, who had a strong pre-conceived idea of what he was painting, yet then moved into a space of 'uncertainty' where he applied rhythmic, more abstract marks. Painting provides an openness to both uncertainty and certainty for the creator and allows meaningful engagement regardless of rational thought.

Full attention on painting

Full attention to painting during the workshops suggests involvement in immersive or flow states, which in turn may suggest engagement with Material Thinking.

Observations suggested that all participants at times applied their full attention to their painting. The length of time and frequency of when they did this varied. Peter, Rose and Norman all intently looked at their artwork whilst they were applying the paint. They appeared calm whilst doing this and did not appear to look at any other aspects in their surrounding environment or communicate to their partners or the artist-researcher in anyway. These periods of full focus were intermittent with all three participants verbally communicating to the artist-researcher at times.

Michael appeared to demonstrate deep concentration whilst painting. He looked intently at his painting as it developed and had long periods where he applied the paint and did not look around or communicate anything.

James appeared very upset at the beginning of the session and cried. He spoke about the difficulties he was experiencing in relation to living with dementia and the challenges that this brought for his care partner. However, once engaged in painting, James stopped crying and seemed less distressed. For a large part of the session, he looked only at his painting and made self-sufficient choices of different colour paint, which he would then apply to his work. Part way through the session, his wife watched him paint and commented: "He's carried away."

Flossy and Poppy appeared to frequently move between states of applying their full attention to their painting process and periods of apparent unease. During the immersive times, where their full focus was on the painting, they appeared calm. For example, Poppy began to laugh when she was fully focussed on painting. Poppy gave full attention to her painting more frequently as the workshop progressed and her emotions appeared to correspond to her level of immersion. She fluctuated between appearing anxious and frustrated, to being happy and relaxed, with the latter associated with periods of engagement in painting. Whilst anxious, Poppy would make very fast incoherent noises and often frown. However, whilst appearing calmer, Poppy would make fewer noises and appeared engaged and would at times laugh. As the session progressed Flossy stopped asking so regularly what she should be doing and appeared engaged in the painting process.

Daisy found verbal communication very difficult and appeared to be able to speak only a few words. Her mood fluctuated throughout the session. However, whilst painting, Daisy did not display any signs of distress. She often made quiet, repeated humming noises whilst painting

and smiled. Daisy's process of applying the paint was rapid; the artist-researcher would go and get Daisy a new sheet of paper when she had finished one painting. Whilst waiting for new paper, Daisy did not engage in painting and her anxiety seemed to increase. She began to fiddle with her glasses and pieces of tissue and the noises she made were louder and more constant. Once Daisy re-engaged in the painting, her expressions of anxiety appeared to subside.

Observations also suggest that when engaged in painting, participants' anxiety appeared to decrease. For example, James entered the room crying and appeared very upset. However, once engaged in the painting process, he appeared calm for the remainder of the session. Although it is not the primary purpose of this paper to look at the therapeutic potential of painting for people living with dementia, it is important to offer insight into the manner in which any reduction in anxiety or distress might be achieved. It is perhaps the experience of immersion in an 'in-the-moment' or flow state of creativity which in at least some cases contributes to this. The engagement of paint for people living with dementia facilitates a form of Material Thinking which we argue contributes to an immersive experience within painting as feelings of 'wrongness' are less likely to interrupt the painting process.

Whilst engaged with the paint, all participants were at times immersed in the painting process and applied their full attention to their painting. Furthermore, participants demonstrated very little expression of distress whilst they were engaged in this way. For example, James' partner's comment "He's carried away" suggesting that James was focussed on his painting. During these times James' expressions of distress such as crying fully stopped. This is similar to Flossy and Poppy who, although appearing anxious at times, when engaged and immersed in the painting appeared happier and relaxed. In fact, the artist-researcher was struck by how calm most of the participants seemed for the majority of the time that they were actually engaged in painting.

It is beyond the scope of this paper to provide deep insight into the vast concept of immersion. However, note that it aligns well with Kuspit's (2000) and Newton's (2001) concept of transcendence within painting. Transcendence is a feeling of something other than complete reality and may arise when painting with a full focus on the creative process. This also closely aligns to the notion of flow described above (Nakamura and Csikszentmihalyi, 2014). We suggest that many of the participants experienced immersive or flow states which indicates engagement with forms of Material Thinking. As stated above, participants engaged

with enacted, embodied, embedded, and extended cognition. Therefore, we suggest that engagement of these forms of cognition through painting provides an immersive platform for individuals living with dementia.

For people living with dementia who are often situated within the present moment, this is of high importance. Supporting a person living with dementia to engage in a meaningful activity that focuses on the present moment can provide a sense of purpose rather than a focus on loss and on challenges, not simply in the opportunity to produce a work of art, but in the opportunity it presents for individual expression and creative cognition in the form of Material Thinking. This has the potential to provide a means to integrate individuals further into society (Killick and Craig, 2012), via the enhanced engagement with others it may provide as well as enhanced recognition of personhood and of agency, thought, and individuality.

Conclusion

Much prior research has demonstrated that people living with dementia can be capable of meaningful activity, even where linguistic and other cognitive skills have been severely impaired. Kontos has argued, on the basis of her ethnographic work, that people living with dementia can "interact meaningfully in this world through activity and engagement rather than contemplation and reflection" (Kontos, 2004, p. 831). We build on Kontos' work through suggesting that in this painting workshop, people living with dementia interacted meaningfully through activity and engagement, and through contemplation and reflection. Some participants were able to verbally express their thoughts and reflections on their work, but even in the absence of verbal articulation, the creativity, and especially the intense concentration typical of creative flow states, strongly implies reflective, contemplative engagement in meaningful and creative activity.

Art activities for people living with dementia therefore should be valued and acknowledged as a valid form of engagement and expression, not just merely as a pastime, and although it may provide additional benefits such as relief from anxiety and low mood for the duration of the activity, as well as a number of beneficial consequences, art activity, here in the form of painting, should be seen as valuable in and of itself, for the opportunity to engage in creative thinking.

In conclusion, this paper argues that painting can promote agency and selfhood for people living with dementia by enabling a space in which new modes of thinking that do not rely on verbal articulation or rational thought can develop which go beyond mere habitual embodied engagement in the world. Activities such as painting are enjoyed by many, but these forms of engagement in thought and creativity may be of heightened importance for people living with dementia when other modes of cognition may have declined. Findings suggested that all participants in the study were able to engage in an independent way, showing individuality, making numerous decisions, and exercising different skills, such as understandings of the properties of the paint and the use of the paintbrush. We argue that the relationship between the person living with dementia, the paintbrush and the paint promoted a form of Material Thinking. While recognising the realities of dementia, acknowledgement of such skills may go some way to countering starker narratives of loss of selfhood and of agency for people living with dementia.

Furthermore, the malleable qualities of the paint along with the individualised approach of the workshop facilitated a unique approach whereby participants were supported to engage in a way that was personal to them with no imposed limits.

The flexible process of painting in itself also provided a re-iterative process whereby there were no feelings of 'doing something wrong' nor the necessity of adherence to pre-set rules. This in turn created an embrace of uncertainty along with expressions of more pre-conceived ideas. Consequently, this provided an immersive experience whereby participants were calm and fully focused on the process of painting.

Future work should aim to establish practical uses of painting within care practices for people living with dementia across health, community, and care settings. Similar approaches to arts engagement facilitation could be adopted to enable family and care staff to engage with people living with dementia in a creative way. Future research could also provide a focus on the relationship between the artist-researcher and participant with particular reference to how their relationship and behaviours affects the experiences of the painting process. Painting has particular qualities which may differ from other art activities, such as those afforded by the material qualities of the acrylic paint used, and the individual nature of the work, which for example would differ in choral singing. Future work should examine the processes of participation in various art activities to explore the potential for enabling cognition and

agency for people living with dementia, as well as their suitability, accessibility, and ease of provision for different individuals and settings.

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