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Handmade Therapy: The Hedonic Impacts of Engaging in Pottery Making

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Abstract

Drawing on digital sensory ethnographic research with potters during the Covid-19 pandemic in Britain, along with the literature on clay therapy, this paper explores how engagements with clay afford hedonic psychological wellbeing impacts. Adopting an embodied-enactive-ecological approach, we utilise Material Engagement Theory (MET) and the concept of therapeutic affordances to challenge internalist cognitive approaches and to argue for the active role of material engagements in shaping our affective states. We argue that clay's materiality is central to such impacts and that wellbeing arises relationally through interactions between specific individuals, materials, and their environment. This paper discusses how the tactile, cohesive, and malleable materiality of clay, as well as the variability in how it can be engaged, allows for mindful, immersive and relaxing experiences, that positively contributed to the hedonic wellbeing of our participants. Additionally, we examine how interactions between potter and clay evolve through the development of skill, as their affordance space changes. Particularly, we highlight the complex nature of control with respect to the volatility of clay and pottery; we explore the tension between the desire for and the pressures of skilful production, we analyse the enjoyment of the processes of making, and discuss the permeability of distinctions between hedonic and eudemonic wellbeing.

Keywords Material engagement theory (MET) · Therapeutic affordances · Embodied-enactive-ecological cognition · Hedonic wellbeing · Skill · Pottery.

1 Introduction

Aesthetic experience, from the perspective of performance or the making of art and artefacts rather than the observation of artworks, has across disciplines been argued to have a positive impact on wellbeing and mental health (e.g., Attard and Larkin 2016; Camic 2008; Crawford and Patterson 2007; Dalgleish 2019; Fancourt and Finn 2019; Fuchs 2018; Gallagher 2021; Koch 2017; Koukouti and Malafouris 2021; Maujean et al. 2014; Röhricht 2009). In this paper we explore the aesthetic experiences of participants engaging in pottery, attending specifically to the hedonic form of subjective psychological wellbeing. Hedonia can be understood to pertain to the experience of happiness as a subjective state, obtained through immediate experiences of pleasure and comfort, and the absence of stress, sadness, or anxiety (Deci and Ryan 2008). We characterise hedonia more substantially below.

Clay therapy is a well-established form of art therapy. Interacting with clay, both in respect to the processes of engagement and the production of forms, can affect mental states. We will draw on the literature on clay therapy throughout this paper to explore the relationship between mental health and engagements with pottery. Clay therapy practices can focus on the active process of making and/or use the process of making and its products as motivating a form of 'symbolic speech' in which participants are encouraged to create and then to discuss the issues expressed in their piece. These two foci are prevalent today in art therapy practices and literature more generally, as well as in clay

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therapy. For example, Henley (2002: 57) highlights how clay therapy employs both the manipulation of clay with the goal of producing a product, as well as examining the process of engaging with the material itself. This has also been discussed by Sholt and Gavron (2006: 66) who argue that the emphasis on processes and products is grounded in the core contention that artistic expression does not only reside in the final form but also in the processes by which a piece is developed, with both offering insights into psychological processes and revelations about the creators 'inner world'. In some instances the production of tangible products may be important, such as when it is required for further consultation in therapy (Jørstad 1965). In other cases, however, such as when working with client's with sensory or developmental disabilities, creating objects is not always possible (Henley 2002: 170). In such contexts, clay can be used for sensory stimulation or verbal free communication, without an emphasis on the end result of a product. Thus, clay is a material that can be worked or engaged in any number of ways, and this can be adapted to skill level or access to tools.

This dual attention to both process and product can be placed into productive dialogue with a radically embodied and enactive approach to cognition in order to understand the central role of materiality in the shaping of mental health and wellbeing. In adopting such an approach in this paper we challenge the emphasis taken in much of the clay therapy literature on the internalistic conception of cognition or symbolic analysis and the side-lining of the role of materials. In particular, this paper draws on Malafouris' (2013) Material Engagement Theory (MET) and Gallagher's (2018) notion of therapeutic affordances, and wider embodied and enactive theories (see Groth and Nimkulrat 2024). MET focuses on the processes through which we engage with materials, where specific affordances (Gibson 1979) emerge and are perceived. Through such processes both products and cognition arise, in ways that allow us to understand such forms as enactively bringing forth reality instead of as objects that represent reality (Malafouris 2013: 118). Accordingly, MET argues that the mind is not contained within the skull; instead, the human capacities to enact agency, memory, and imagination are distributed material processes, extending through bodily engagements beyond the individual (Malafouris 2019a: 13). Thus, mental health, wellbeing, and affect or emotions are not confined to internal cognitive processes, but depend on the action potential of engagements with materials in the 'shaping of our minds and brains' (Malafouris 2013: 7). Taking a therapeutic affordance approach (Gallagher 2018), we understand affordances as arising relationally between agent and environment. This provides a useful embodied-enactive-ecological framework for understanding how therapeutic impacts arise through engagements in respect to the affordance space of individuals.

We will explore these theoretical perspectives in relation to both clay therapy literature and examples offered from O'Brien's digital and sensory ethnographic research, which she undertook between March and July 2021 with participants learning pottery skills during the COVID-19 pandemic in Britain (O'Brien 2024). Twenty-five semi-structured interviews were conducted over Microsoft Teams, with each one lasting one to two hours, with participants ranging from novices to professional potters. We will discuss clay's tactility and malleability and the mindful and relaxing experiences brought about through absorption in the repetitive acts associated with making pottery. Drawing on the work of Brinck and Reddy (2020), we attend to the reactive and sensory dialogue that arises between maker and clay, and examine how this intersects with the development of skill in relation to the idea of therapeutic affordances spaces (Gallagher 2018). We also explore the complicated nature of control experienced in making, through our understanding of both material agency and skill. Particularly, we are interested in the tensions between a desire to produce products, either as a marker of skill or due to the pressures of operating a business, and how it can outweigh the enjoyment of the process of making. Bringing skill into the conversation illustrates how affordance spaces can change for individuals, and points to the wider factors that influence wellbeing; it also complicates distinctions between the hedonic and eudemonic forms of subjective psychological wellbeing.

2 Adopting a Radical View of Embodied Cognition

This paper adopts a MET perspective to explore how engagements in clay-work, understood as modes of "thinging", thinking and feeling *with* and *through* things (Malafouris 2014), give rise to affective responses and experiences that are constituted during the collaboration between individuals and clay. We draw on MET's hypothesis of material agency, which argues that humans cannot be classified as the sole enactors of action. In arguing this, MET adopts a non-anthropomorphic and distributed notion of agency that takes it as emergent through engagements with the world, rather than a fixed human property (Malafouris 2013: 114). Of course, given clay therapy's overt and necessary focus on the human participant it is obvious that the human experience will be prioritised in its discussion. However, focusing exclusively on the role of humans in such interventions is to disregard the active role of the clay in impacting and constituting the mental states of the participants through engagement. Moreover, centring on only human action

in such approaches implies a Cartesian division between person and world, since this is to assume human actions can be considered in isolation detached from the environment in which they are engaged. At the same time, taking a MET approach, does not mean attending exclusively to the properties of materials alone, but rather to the engagements occurring between persons and things, through which agency arises (Alessandroni et al. 2024; Malafouris 2019a; 2020; 2024; 2025; Malafouris et al. 2024; Malafouris and Koukouti 2022; March 2024).

Useful in this respect, is the affordance-based embodied-enactive-ecological approach to therapy, which in this context provides a valuable framework for considering how it is through engagements with the clay that such therapeutic affordances arise. Building on Gibson (1979), Gallagher (2018: 722) understands affordances as relational, that is, 'defined relative to the capacities (sensorimotor, social, cultural, cognitive) of the agent'. As such they can only be considered in contexts of interaction with an agent. Gibson draws on the phenomenological perspectives of Merleau-Ponty (2002), who was influenced by Husserl (1989) and Heidegger (1962) in his understanding that perception is inherently action-oriented, as we perceive things in relation to 'our pragmatic possibilities for acting on or with them' (Gallagher 2018: 720). There are both physical affordances, for example, a chair affords sitting for someone of a certain size and physical mobility, and also social affordances, for example, another person affords the possibility of conversation and with additional others the affordances may increase (Gallagher 2018: 720). Consequently, while affordances are 'anchored in the physical object' they do not exist out there, independently in the environment, they relationally arise dependent on the characteristics and attributes of the individual or individuals interacting with them (2018: 720). From this perspective, we can attend to an individual's 'affordance space', which 'includes the full range of possible affordance fields relative to an individual, including the current affordance field plus any possible changes in that field due to changes in physical or cognitive skills or environment' (Gallagher 2018: 722). Importantly, the affordance space of an individual can change over time through their development of skill, change in environment, including social environment, or in relation to physical or psychological changes. Affordance spaces can be different for individuals with different skills, physical capabilities, and psychological profiles, and are most often constrained by social context. This can also be understood in relation to Malafouris' (2016: 73) argument that 'cognition is grounded in situated action and constrained by the specific kind of body we possess'.

Thus, drawing on MET's understanding of material agency, and the notion of therapeutic affordances, we argue that the therapeutic impacts that can arise through claywork are largely connected to the materiality of clay, specifically in relation to how its material qualities are engaged and perceptually experienced by different individuals, with hedonic wellbeing emerging in relation to the affordance spaces of the individual.[1] Taking such an approach we leverage MET's understanding of material agency, and the ways in which cognition and form are emergent with and through engagements with the material, while at the same time attending to the ways in which specific individuals benefit from different forms of engagements with clay. There is an unrealised potential here for creating new approaches to care and for challenging prevailing assumptions about mental health intervention by exploring how people can improve their hedonic wellbeing through simple material engagement interventions (Malafouris 2019b: 195; Malafouris and Röhricht 2024). However, before exploring this, we must first explicate what we mean by 'hedonic wellbeing', and our motivations behind adopting this focus.

3 Defining Hedonic Wellbeing

While there is of course vital importance in exploring the role played by materials in condition-specific mental states, this paper attends to the role of materials in non-clinical conceptualisations of mental health, particularly exploring hedonic experiences of subjective psychological wellbeing. Psychological wellbeing can be understood as being either 'objective', which concerns an individual's material and social circumstances, or 'subjective', which is based on individual self-assessment (Hird 2003). Subjective wellbeing can be understood as either 'hedonic wellbeing' which is concerned with happiness, positive emotion, and an absence of pain, and 'eudemonic wellbeing', which implies fulfilment and the realisation of potential or flourishing. Although there is overlap between eudemonic and hedonic, as well as subjective and objective, wellbeing (e.g., Clark 2018; Ryan and Deci 2001), in this paper we employ the following definitions:

> **Eudemonic wellbeing** focuses on social connectedness in belonging, self-empowerment and self-fulfilment, identity, self-actualisation, and relief from stress in being (Pöllänen and Weissmann-Hanski 2020:

[1] It's beyond the scope of this paper to present a theoretical or philosophical justification of MET or the related embodied-enactive-affordance perspective, which, as we have indicated, involves a somewhat radical departure from Cartesian cognitivist views. For that kind of justification, see Malafouris (2013). One could, however, understand the application of MET to this particular therapeutic context of working with clay, as one proof of concept to the extent that MET provides a coherent description of how and why this therapy works.

348; Wilcock 1998), as well as personal growth and development– cognitive, emotional, social, and moral (Sirgy 2021: 99).

Hedonic wellbeing concerns the experience of happiness as a subjective state, which is largely considered to be obtained through immediate experiences of pleasure and comfort, and the absence of stress, sadness, or anxiety (Deci and Ryan 2008). It has been argued to be 'the belief that one is getting the important things one wants, as well as certain pleasant affects that normally go along with this belief' (Kraut 1979: 178).

While the eudemonic form has been discussed by O'Brien (2023) in relation to participation in pottery making and social media during the pandemic, in this paper we focus specifically on the benefits associated with the hedonic form. Importantly, by focusing on wellbeing, rather than specific mental health conditions, our research could be open to a wider variety of participant experiences, exploring the far more common place experiences of happiness, which anthropologists and psychologists have often sidelined in favour of the pathological (Christopher 1999: 141; Thin 2009: 24). Thus, had we chosen to explore how pottery impacts experiences of, say, anxiety or depression as clinical conditions, not only would our field of potential participants be narrowed on the basis of clinical diagnosis, but we would also be failing to investigate the quotidian emotional experiences of people engaging in pottery.

4 Different Clay, Techniques, and Bodies

> Clay needs to be respected to an extent…because it's, you know, it's forgivable, but then you know, porcelain isn't? So, it's slightly that you find your kind of relationship with it, and which one suits you best?– Ella.

There are many different types of clay, which afford different types of engagement based on their material qualities. As is indicated by this quote from Ella, an important concern for understanding the emergence of hedonic wellbeing impacts from engaging in pottery is understanding what 'suits you best', both in respect to the type of clay and the means of engaging it. Just as there are many types of clay, ranging from nylon-infused air-drying clays, to rough grogged stoneware bodies, or the delicate and butter-like texture of porcelain, there are many different ways of engaging them, with handbuilding and wheel-throwing offering but two options. Furthermore, the act of pottery itself extends beyond the process of moulding clay, but includes its preparation, decoration, and firing– all of which elicit different physical and emotional feelings for different potters. Additionally, unlike many other craft materials, the materiality of clay changes throughout the process of working with it (Brinck and Reddy 2020: 25), for example with continued handling it can dry out and stiffen, rendering it less malleable. Thus, when attending to the materiality of clay, it is vital we recognise its variability and how this can fluctuate, and how this will be differently experienced by potters.

In this paper, we focus mostly on wheel throwing and handbuilding, given that these were the practices predominantly undertaken by O'Brien's participants, and where relevant we will point to how the ways in which they are differently engaged might afford different hedonic wellbeing benefits. Preferences for one or the other might be related to a desire to create forms of a particular style, or for the emotions or sensations evoked through the process. One participant, Sophie*[2], who prior to the pandemic had been engaged part-time in teaching pottery, discussed the preferences for handbuilding or throwing that she observed in different students.

> There's almost for everybody a version of ceramics that fits their drivers… although I think people do evolve. I think throwing is a thing that to get good at you have to do it a hell of a lot. People don't realise how long you have to do it over and over and over and over to get it perfect. So, if you are driven by perfection, I think to doing a lovely geometric handbuilt something will be more rewarding more quickly… I think those people that are a bit more gung ho are the ones that leap to the wheel. And maybe those that thrive more on something a bit challenging to them… But if you are already frustrated by the fact you've tried and failed, then obviously you're like going to turn your brain off, you're not going to be driven by it.– Sophie.

This is by no means a strict or universal distinction; however, it shows an awareness among practitioners of the different preferences potters may have for techniques on the basis of their personalities, or 'drivers' as Sophie refers to them. In her opinion, because of the amount of practice required to successfully throw a form on the wheel, it is not well suited to a perfectionist, who might find more satisfaction from handbuilding due to its more precise nature. Arguably, this is largely to do with the temporalities and forces in motion at play in these processes; where in wheel throwing placing your hand on the spinning clay for even a second exerts

[2] Participants who chose to have their name pseudonymized are indicated by an asterisk (*) when they are first mentioned.

pressure across the entire form making changes that could be irrevocable. Comparatively, in handbuilding many small and repeated movements on behalf of the potter are required to make any change at all. Moreover, while a skilled wheel-thrower might be able to bring back a failing pot from the brink of collapse, very often it is easier to simply remove the clay and start again. Conversely, with handbuilding because of the slower pace of the process, there is very little that has gone wrong that can't be undone through adding or removing clay. Additionally, different bodies, and accordingly different minds, afford different engagements with clay, and necessarily this must extend to the affective engagements of pottery. Following a Gibsonian (1979) understanding of affordances, the pleasure or displeasure afforded by clay arises through the specific ways it is engaged by situated feeling– emotional and sensory– bodies, as well as the physical qualities of the material itself, which arise relationally as affordances. Thus, taking an affordance-based perspective, it is not just the qualities of the material that lend themselves to therapeutic impacts, but importantly the ways in which they are sensuously engaged, through which these affordances arise. Moreover, Sophie's comment also alludes to the connection between skill and preference, and how enjoyment may change over time, which is the central concern in the final section of this paper. Finally, her comment also refers to another important point, the negative feelings that may arise through making pottery, in this case associated with failing to throw on the wheel. The negative affective impacts of engaging in pottery have been little discussed in the clay therapy literature beyond anecdotal references to participants being upset about their sessions ending (Anderson 1995: 424), experiencing aggravated anxiety when not being able to deal with the regressive states and feelings clay-work can stimulate (Corriveau 2016: 28; de Morais et al. 2014: 208), or struggling to deal with the loss of pieces during the process (Henley 2002: 188). However, in this paper, the negative hedonic wellbeing impacts of engaging in pottery are vitally important in this context, as we understand hedonia, and subjective wellbeing more broadly, to be defined in relation to an absence of stress and negative emotions.

5 The Positive Hedonic Wellbeing Impacts of Engaging with Clay

The sensory pleasures elicited through hands on, and unmediated, engagements with clay are well documented in clay therapy literature (Anderson 1995: 415; Bat Or 2010: 320; Sholt and Gavron 2006: 70). In the clay therapy literature, clay's materiality, its tangible earthiness, malleability, and cohesive qualities have been argued to offer a sense of reality and substance (Henley 2002: 56). But at the same time, others have argued that working with clay offers an opportunity for individuals to distance themselves from their everyday life (Corriveau 2016), through instead focusing on their embodied engagements with clay. For example, for De Morais et al.'s (2014: 208) day hospital patients in Londrina, Brazil, the simple act of smoothing the surface of the clay promoted pleasure and relaxation, contributing to reducing depression and anxiety. While in the clay therapy literature we see an awareness of how the material qualities of clay can be useful in evoking different affective responses during clay therapy sessions, what is lacking from much of this literature is a sufficient framework for understanding the active role that clay plays in this, rather than being purely faciliatory. At the same time, there is also a prevalent internalist perspective, which assumes a separation between mind and body, with an 'unconscious' mind that needs to be brought out and expressed through the clay, as we will discuss shortly. Instead, utilising MET and the notion of therapeutic affordances, we argue that the materiality of clay, as it emerges through engagements, can be considered central to producing hedonic wellbeing experiences.

This idea of mindful and pleasurable engagements with clay was something experienced by many of the participants. For example, Ella speaks to the plurality of sensations that can be evoked through working clay through different processes of making, comparing her experience of coming to learn pottery having previously been enrolled in a Fine Arts degree.

> I think because I was just like so exhausted with fine art… it's all quite difficult, and everything's got to be unique, and it all has to be special. But with clay, it's, it's clay. It's messy, it can, it can be this, you know, chalky formula, or it can be a beautiful sculptural piece, or a slab, you know, it's like, it's totally malleable, which I think is awesome. So that really pulled me in, that sort of tactility of it. And imprinting yourself on it just felt really nice. I mean, your kind of, it's mindful. I think people have spoken about this, like it's a really mindful process. Whether you're on the wheel, or you are just squidging it in your hands, you know, it pulls you out of your mind, and you're into just what your hands are doing. I think it's awesome.– Ella.

As is expressed in the clay therapy literature's dual focus on processes and products, the malleability of clay lends itself to many forms of engagement, whether productive or simply pleasurable. Particularly, Ella was enticed by the freedom to engage with the medium of clay, in all its variability, compared to the emphasis on the unique final product that is required of a piece of art. Many of O'Brien's participants

compared their experience of pottery to their engagements with other creative practices, ranging from baking, textiles, gardening, illustration, painting, music production, stage design, or photography. Thus, while many participants felt there were therapeutic benefits involved with simply being creative and working with your hands, in this paper, we focus on the aspects of clay's materiality that were particularly enjoyed for being pleasurable and relaxing.

The word clay derives from the German word *kleben*, 'to stick to' (Staubach 2013; xii). Responding to the pressure of one's fingertips the clay holds the form you work it into, as a malleable three-dimensional form open to continued re-working. The comment offered by Ella indicated she was particularly captivated by the idea of 'imprinting' oneself onto the clay, and this idea of making a mark on clay was similarly discussed by Zoe*.

> I also think it is how your body interacts with it. I don't know, I disassociate a lot…I think like actually touching a real-life thing and feeling the impact of it…I feel like with clay you're actually physically pushing something, playing with it, and its reacting to you and it's like a conversation, and I think that is really interesting.– Zoe.

Again we see an attention to the engagement that occurs between body and clay, which Zoe discusses in comparison to the idea of a conversation. Understanding interactions with clay through comparison to language is common in the clay therapy literature, where clay-work has been discussed as 'symbolic speech' (Naumburg 1966), 'sensory dialogue' (Bae and Kim 2018: 1) an 'alternative' (Bar-on 2006) or 'non-verbal' (Pesso-Aviv et al. 2014) language, or a 'language to communicate inner truths' (Rogers 2001). Throughout this literature we see an emphasis on the product of clay-work, in the sense that these objects can be 'symbolically read', whether accompanied by or in the absence of verbal communication. From a MET perspective, this paralleling of material culture with language is problematic as linguistic approaches to material tend to suppress meanings brought forth through engagement with material signs (enactive signification). Linguistic analysis of material culture is insufficient, as it commonly draws on de Saussure's (1966) semiology in which the 'sign' is disembodied and disconnected from the 'signifier' (Malafouris 2013: 92). From such a position, Malafouris argues, the linguistic sign exists as a 'two sided-psychological entity' in the human mind, which is detached and unaffected by the external reality, rendering material culture unimportant (2013: 92). This is in opposition to MET, which holds that it is precisely these often-unconscious affective channels of material culture, which are manifest in their dynamic and semiotic nature, that give meaning (referring to how they mean rather than what they mean) to material signs. Thus, material engagement as a semiotic procedure aims to question how it is that a sign emerges and acquires symbolic force (Malafouris 2013: 96), as 'actual physical forces that shape the social and cognitive universe' (2013: 97). This is not to argue that material signs cannot on some level operate as a type of external representation. It is to say that whilst such symbolic readings may be valid, we must also consider how meaning is not a product of representation, but instead the product of a process of 'conceptual integration' between material and conceptual domains (Malafouris 2013: 90). Adopting a distributed-cognition approach we may view these produced artefacts as a cognitive resource. Rather than being an 'external symbolic storage' (Donald 1991), these pieces can be considered the actual processing of emotional, hedonic meaning. MET proposes a radical departure from internalist and cognitivist views about human cognition that understand the mind to be contained within the brain alone, and artificially separate thought from embodied action and its surrounding environment (Malafouris 2013: 59). Related to the internalist view is the common assumption in clay therapy that people possess 'inner worlds' of mental activity (e.g., Bat Or 2010; Pesso-Aviv et al. 2014; Sholt and Gavron 2006). Against this view, MET argues that the starting point for exploring cognition and the mind is not 'inside' the skull, but instead the relational and extensive aspects of mind, existing 'outside' in the world. This is the basic assumption of the Extended Mind hypothesis, which considers those things that we make as not simply externalisations of information in the brain, but the actual external processing of that information (2013: 50–51). For the reader not familiar with MET, we should clarify that the meaning of the term 'extended mind,' although related, differs significantly in scope and emphasis from that proposed by Andy Clark in his seminal work with David Chalmers (1998). Whereas Clark emphasizes the functional equivalence and complementarity between 'internal' and 'external' processes– the idea that external tools can serve the same cognitive roles as internal processes (e.g., memory, computation)– MET argues a radical continuity between cognition and material culture in the sense of a constitutive intertwinement (Malafouris 2013). On this construal, material culture– tools, artifacts, technologies and the physical environment– do not simply extend or mediate the cognitive capacities of the brain but often constitute and actively transform what human mind is and does. For MET the emphasis is not just on how material objects can be used as symbols and external representations but on how thought itself is inherently material because human cognition co-evolves with materials. This ontological entanglement of mind and materiality where human thought and

material culture co-create each other is expressed with the notions of "thinging" and metaplasticity (Malafouris 2021; 2024; 2025). Thus, when examining the products of these therapeutic sessions the task is not simply to read symbolic meanings externalised in the clay, disembodied from their creation. Instead, the product is an artefact of the cognitive emotional processing undertaken by the participant through engaging with the clay, in the specific context of therapy, making use of symbols analysed from the situated position of the enculturated therapist.

There is some utility in conceiving of this engagement as a form of dialogue. This idea is addressed by Brinck and Reddy (2020) who adopt a phenomenological approach that views affect as joining body, self, and world (Fuchs 2013), and utilise the term 'dialogue' to explore potters' emotional engagement with clay and how emotion relationally arises from making. They argue the craftsperson's emotional engagement with the material world is grounded in an openness and mutual recognition that incorporates dialogue with materials (2020: 23). In doing so, they view dialogue, both verbal and non-verbal, as a form of interaction not restricted to use with other persons, but as constitutive of the primary mode for making sense of and engaging with the world (2020: 42). They argue that as the potters' experience of communicating with the clay arises from moving with the clay they are emotionally moved (2020: 41). Moreover, they argue that the emotional experience of communicating with clay (2020: 28), varies in character over time dependent on the development of the potter's relationship with clay (2020: 30). This work is useful for considering the ways in which affect is tied to cognition, and thus its interrelationship with skill as the relationship between potter and clay evolves over time. Moreover, while we tend to designate 'dialogue' or 'conversation' as an interaction between humans, and thus the use of the term might be considered anthropomorphising, as well as implying some sense of turn-taking, which cannot clearly be distinguished in such interactions with clay, it does firmly position the engagements as two-sided interactions, which is central to MET. MET brings a focus on the temporality of touch and the tactility of making which can help us disambiguate this dialogue between maker and material as a situational attunement between the potter and clay, or what is called a *haptic attentive unity* (HAU) (Malafouris and Koukouti 2022). The main proposal here, is that with practice and skill the kinetic interaction between potter and clay is transformed into a multimodal kinaesthetic transaction where the potter becomes attentive to the expressive affordances of clay and recursively the clay becomes responsive to the creative affordances of the potter. It is important that the accounts used by Brinck and Reddy (2020), as well as this example we offer here from Zoe, are given by potters themselves, and it is vital that we consider the ways in which people understand their own experiences and engagements, even if they do not align with our theoretical understandings. Returning to the example at hand, it is the reactivity of clay that affords Zoe's ability to imprint upon its surface and lends itself to being understood as a conversational partner. Furthermore, there is a reciprocity to touch (Merleau-Ponty 1968). In touching and imprinting upon the clay, Zoe is also altered, affectively, as she derives satisfaction from such engagements. Thus, whether we conceptualise this interaction as dialogic, it is clear that there is a correspondence here that emerges through the engagement.[3]

A key theme that emerged in the interviews was finding satisfaction and pleasure in the repetitive actions used in working with the clay. This was discussed by both Phoebe* and Amelia*[4] in relation to wheel throwing and handbuilding respectively.

> It is quite therapeutic, I think. You can just kind of immerse yourself…I prefer wheel throwing because it is just so immersive. You get your clay out and off you go! I don't know, you can switch off. I think I like repetitive things though. Like I used to love swimming because I can just switch off and count the lengths.– Phoebe.

> It's mindfulness, its being in the present moment. You're sitting there making things, and especially when you're doing things like coiling or slabbing, and you're doing this monotonous thing and you're doing it again and again and you're sitting there and whatever you're thinking about takes on a different quality for me.– Amelia.

Their enjoyment of these processes is grounded in the repetitive acts involved in making, which allows them to immerse themselves, and thus offers them a sense of 'mindfulness'. This relates to Berensohn's understanding of clay therapy, that once the basics are learnt, techniques give way to a robust physical movement and rhythmic manipulation that

[3] We note that Gadamer's ([1960] 2013) aesthetic conception of experience on the model of conversation is relevant here. Gadamer also introduces the concept of play as a form of movement which includes the possibility that in some instances the agent loses self-agency as the process itself takes over as one gets immersed (see Phoebe's comment below). This contrasts with a greater sense of control that may emerge in some instances (see Olivia's comment below). These may be the extremes of a process of 'to-and-fro' described by Gadamer (2013: 109).

[4] It should be noted that while the participants discussed here began learning pottery for a variety of different reasons, for some participants, such as Amelia and Charlotte, their motivation was to engage in an activity they believed would be beneficial for their wellbeing after receiving negative medical diagnoses.

are poetry in motion (cited in Henley 2002: 56). This idea was similarly expressed in the earlier quote from Ella, and centres around the notion of attending to movements and actions rather than other thoughts, collapsing the distinction between mind and body. Moreover, this idea is frequently evoked in clay therapy literature, with much discussion surrounding its 'relaxing' or 'meditative' nature (e.g., de Morais et al. 2014; Palmer 2020; Vespini 2019).

Particularly, these quotes speak to how the *therapeutic affordances of pottery* arise through engagement; as it is in respect to clay's malleability, and openness to re-working, that through the ways in which it is engaged, either with the additional use of the wheel or by solely the body, the affective responses of the participants arose. These processes involve full bodily engagements, and while the actions of the hands might be the focus of their comments, the whole body is oriented towards the clay when entering a rhythmic state of making. In order to find throwing relaxing a certain level of skill is required to actually centre and move the clay, however, for other processes, such as slabbing clay– the rolling out of a body of clay to create 'slabs' of an even thickness– while there is a level of skill required to do this 'well', such as ensuring small bubbles of air are removed, it is a relatively simple process that can elicit sensory pleasures and relaxation without much prior experience. This highlights the importance of considering how the therapeutic affordances of such material engagements arise in relation to both the material and the affordance space of participants, and its relation to skill. Thus, it is important here that we discuss how it is not through engagements with the clay alone that pleasure is evoked in Phoebe's case, but also through skilled engagements with the wheel. Malafouris (2008: 34) discusses how in the context of throwing, the form produced is simultaneously handmade and wheel-made, as the interaction between the body and clay are constrained by the wheel. He argues it is a joint collaboration between, 'on the one hand, the centrifugal force imparted to the clay by the movement of the wheel and the hands of the potter; and on the other, the skilful guidance of this force by the potter's fingers, raising or pressing down the clay to the desired form' (2008: 34). Importantly, while the skilled potter may adjust the speed of the wheel's rotation, they remain attendant to the clay rather than the wheel. This is because, as Brinck and Reddy (2020: 31) argue, the wheel is incorporated into the body space of the skilled potter, drawing a comparison with Merleau-Ponty's (2002: 167–170) discussion of the organist: '[p]laying an instrument, the player does not position his hands (or feet on the pedals of the organ) in objective space, but in the space of his or her own body' (Brinck and Reddy 2020: 31). We might also consider O'Connor's (2007) discussion of learning to blow a glass Barolo goblet, and how as her skill developed, she developed subsidiary awareness of the tools, and she no longer needed to follow each step directly. Moreover, in O'Connor's absorption in the task, Sennett (2009: 173–176) argues she is no longer self-aware of her bodily-self, 'sheer movement repeated becomes a pleasure'. Thus, with skill comes the opportunity for absorption into the task at hand, as tools recede from awareness and their active perception, as they become integrated into the body space. Phoebe understood her enjoyment of throwing as parallel to her love of swimming, in respect to this repetitiveness and ability for absorption. Accordingly, it is important that we note here that we are not arguing pottery is unique in its ability to engender its wellbeing impacts. Rather, we are interested in what ways the materiality of clay and tools contribute to the (positive and negative) hedonic impacts that arise through engagements with it, as well as how more generally participation in skilled crafts or activities offer such benefits.

Another common theme that emerged, which is related to the idea of imprinting upon clay, was deriving enjoyment from manipulating and controlling the clay.

> I was shaping it– manipulating it– and also all the while you can smell it and you can feel it, and it's just you and the clay.– Amelia.

> It does teach you that, if you like are completely present, you can really control what's in front of you, and it's there to be manipulated to whatever you want… but it does also teach you, like once you do have those few breakages in the kiln, it's like okay, I really need to just enjoy the process otherwise it is wasted hours if I just focus on the end product.– Olivia*.

These comments highlight the creative possibilities afforded by clay, and the sense of agency and power they felt over the material. While from a MET perspective, we might reject the hylomorphic assumption that Olivia and Amelia were acting upon the clay directing it purely by their agency, rather than the form arising relationally, it is important to acknowledge that the sense of control they experienced was critical to their enjoyment of pottery. Notably, while Olivia spoke about the sense of control, she had over the clay, through her ability to manipulate the material, she was also aware of the volatility of the processes involved in pottery, citing the potential for breakage in the kiln. In this way, she acknowledged that she was not in full control of the process, but that this needed to be accepted through prioritising the enjoyment she derived from the making process, rather than becoming fixated on the goal of generating permanent forms. What is interesting is that it was precisely an absence of a sense of control that caused a negative hedonic experience for some of the participants, which was largely related

to their relative inexperience with pottery, as we explore in the following section.

6 The Relationship Between Skill and Hedonia

Many of the negative hedonic experiences O'Brien's participants encountered through pottery, such as stress, frustration, or disappointment, can be explored through the lens of control and agency. We argue that this relates to how participants experienced certain facets of clay and a tool's materiality that arose through the process of making. This changed as participants developed a feel *of* and *for* clay, which develops through repeated interactions with the material, as individuals uncover the relevant affordances and develop a perceptual attunement to the materials and skills employed in the process of creating (Malafouris 2014: 149; Malafouris and Koukouti 2022; Malafouris et al. 2023; O'Brien and Malafouris 2024). In this section we discuss how developing skill, through developing a feel of and for clay, required learning to respect the volatility of clay as a material. For example, Luna* discussed the frustrations that come with learning pottery.

> At the very beginning, it's like pottery is incredibly frustrating. Like, you're constantly wrecking things, like you can't do what you want. It's not relaxing… in the process of it, it's like it's not relaxing. Sometimes it can be now that I'm better, but especially at the beginning, it's like that was not the motivation… It is frustrating to learn and going in expecting it to be relaxing…expecting you're going to like feel great about yourself at the end is just setting yourself up for disappointment. Like, you just need to go in with zero expectations.– Luna.

Pottery, by its nature, entails a significant amount of failure. While more experienced potters, through having developed a feel of and for materials tools, might be able to respond to setbacks, for novices it can be very frustrating. Particularly, Luna points to the idea that 'you can't do what you want', and the frustrations that can arise from not having this sense of control. As we have noted, Brinck and Reddy (2020) discuss how emotional engagements with pottery change in relation to the development of skill. Drawing on both Merleau-Ponty (2002) and Rietveld and Kiverstein (2014) to include motor behaviour in social practice, they argue that 'trust in the material and one's own abilities seem inextricably entwined' (2020: 34). It is not just that an expert practitioner is able to respond to perturbations that might throw off a novice (Ingold 2011: 23), but that they are comfortable and trusting of the clay even when things may appear to be going wrong. For some novices, the stressful and frustrating potential of pottery rendered them unable to even engage with clay.

> I think it's having a headspace as well. I think, because for me, if I'm stressed or concerned about things, it's much more difficult to get into that space of being creative properly, you know, really engaging with it…I think maybe some people find that they can go into that space, even if they're feeling unsettled, but I think that's perhaps if they're rather more established and they've got more of a pattern and more of a rhythm and you know a closer identity with what they're doing. But if you, if you're unsure in the first place about the whole process…I'm quite happy about the clay work itself, but I'm unsure about the overall process. I think people who have got into a process, I think it's easier for them to indulge themselves in it actually at times of difficulty. But it's not, I'm not in that space yet, I'm not you know.– Grace*.

Having recently experienced a series of unfortunate life circumstances, Grace felt unable to engage in pottery. Partially, Grace felt this was due to her novice status, and that had she already created a more established practice she might have found it easier to both undertake pottery at difficult times, and to derive joy from it in respect to the sensuous and mindful potential of pottery discussed previously. This idea of getting into a 'process' speaks to some extent to the idea of motor incorporation previously discussed, in which the processes of engaging with tools and materials takes on an immersive and pleasurable quality as sequential actions and steps no longer need to be attended to directly, but rather become felt as tacit knowledge (Polanyi 1958; see also Malafouris and Koukouti 2022). Thus, this complicates the discussion by highlighting the discordance between the fact that while many of O'Brien's participants discussed experiencing relaxation and pleasure, others also believed that in order to find relief in pottery one must approach the activity with the right frame of mind.

This idea was similarly voiced by Luna, among other participants, who felt that if they were already in a negative space not only would engaging in pottery, with its potential for failure, have the proclivity to aggravate their negative mood, but also would render them unable to create work.

> Anytime that I'm like frustrated or having a bad day, I don't go to the studio, because it's just like, if I'm not centred, my pot will not be centred… It doesn't it doesn't get me out of a bad mood. It just makes it worse… I just feel like much less resilient to things

> going wrong. Like, whereas normally it's like… whatever, I break a million of them, it's fine. But when you're frustrated, or you're feeling tense, or whatever, it's just like, it just adds to a bad day, like, at least at my like level of skill.– Luna.

These examples point to a phenomenon which has been largely elided by the literature on clay therapy discussed above, but was very much present in discussions with participants: that the positive wellbeing experiences derived from pottery arise through approaching it in the 'right headspace', or in more enactive terms, approaching it in a properly attuned alignment. We suggest that this concept of an attuned alignment is related to ideas put forward in the book *Centering*, by the poet and amateur potter Richardson ([1966] 2010), which focuses on the process of a potter centring clay on the wheel (Adamson 2010: 206). Richardson (2010: 207) argues, '[a]s human beings functioning as potters, we center ourselves and our clay. And we all know how necessary it is to be "on center" ourselves if we wish to bring our clay "into center" and not merely agitate it or bully it'. What, is most striking about Richardson's (2010: 209) discussion is her call for bringing to the fore 'all the elements of our sensations and our thinking and our emotions and our will: all the realities of our bodies and our souls' when approaching clay on the wheel. Through this poetic and evocative text, she conveys the importance of approaching clay with not only the appropriate physical disposition/position, but also the appropriate emotional one in order to centre clay on the wheel. However, at the same time our discussion shows that not only will a negative disposition throw off the clay, but so too will it further distress the potter. This pushes us to consider the affective resonances that emerge through this process, with clay and potter shaping each other through engagement, whether this has positive or negative wellbeing affects. Moreover, in line with Brinck and Reddy's (2020) arguments, we can consider how this affective relationship changes with the development of skill, further complicating the relationship between subjective wellbeing benefits and skill, as well as how wider objective wellbeing concerns associated with one's life circumstances, as in the case of Grace, can further impact subjective experiences. Thus, for novices, who have not yet developed a feeling of and for clay, or an emotional disposition of trust towards the materials and tools, pottery can present a source of frustration, misaligned with and in opposition to the hedonic experiences related to the sensory pleasures that might be elicited through making.

Comparatively, for skilled practitioners such as Charlotte*, there was an awareness of an inability to force a form to emerge when it simply was not working.

> I've tried to like work through it before. But it's just, I just get frustrated with what I'm making, and squish it up and put it in the reclaim bucket. I've learned now to just listen to my body and when it's going to work and when it is not.– Charlotte.

In this example, we see that while frustrated by being unable to produce a piece, Charlotte understood that at times she would not be able to create the pieces she had planned and instead it was best to discard the clay. Thus, skill is not simply responding to disturbances, but also accepting when you are not in control and that failures happen. It is the emotional resilience to know that, when feeling the clay, the outcome you had intended is not possible, through a confluence of your physical inability to manipulate the clay and in respect to the materiality of the clay itself, and to simply let go of the piece. Moreover, with skill, craftspeople can become more accepting of a lack of control, and even challenge themselves to enter into realms of discomfort in order to further develop their practice. For example, this was highlighted by Amber*.

> Also, you know, when you click past the point, don't get me wrong, it probably took maybe six months for it to properly click, where you don't think, "I've made something this big I'm just going to keep it". You know, at first, you just want to keep something, whereas now I kind of go, "I have already got one of those. I have to take it a bit further." {TALKING TO DOG} "Max, no." {BACK TO CAMERA} And so that's what I try and do now.– Amber.

As Amber's skill developed, she realised she needed to push herself past her desire to produce forms, thus accepting the potential for failure, in order to develop her skill. Brinck and Reddy (2020: 26–27) discuss how with novices the production of a form offers a sense of emotional pride, or a 'societal marker'. This has also been addressed extensively in the clay therapy literature (Anderson 1995: 417; Corriveau 2016: 21; Nazari et al. 2018: 1; Pérez-Sáez et al. 2020). For example, Corriveau (2016: 21) argues clay-work offers an opportunity to cultivate feelings of accomplishment, productivity, and empowerment, or what we might understand as eudemonic wellbeing benefits, through the processes of making, remaking, production, and reproduction. However, this sense of pride can also be constituted in respect to developing one's skill further necessitates confronting the potential of loss in the process. While the relationship between eudemonic wellbeing and pottery has been discussed elsewhere (see O'Brien 2023), we highlight this here to illustrate again the dual importance of process and product in generating positive wellbeing impacts. Moreover, this point

illustrates how with the development of skill, frustrations surrounding failure– that arise in respect to the affordances of the engagement between persons and the materiality of clay and tools– evoke a less strongly negative emotional reaction in participants as they come to understand that it is part of the process of both pottery and learning. Again, this speaks to the situatedness of such engagements with clay and the potential therapeutic benefits they can have. Even when undertaking the same tasks, with the development of skill Amber's apprehension about the potential loss of work was reduced as she became aware of the need to confront the potential of failure and to go with the flow in her pursuit of learning.

Finally, while Brinck and Reddy (2020: 24) contend that tradition and sociocultural influences are central to the craftsperson's emotional experience of pottery, in their paper there is little discussion of what this means in relation to having developed proficiency, as considerations of affective engagements with pottery seem to remain confined to the instances of engagement in making. Here we argue, while through the development of skill there is an increased resilience to the frustrations that can arise through making, with skill development come additional pressures, particularly for individuals who are working professionally as potters. Maisie*, who was working full-time professionally as a potter discussed the pleasures elicited through pottery in respect to the calming effect it had when she was in the flow of making. However, at the same time, she was under pressure to complete certain steps and processes within a certain time frame.

> Everything around the actual making parts is quite quick and fast paced and you have to bash things out quite quickly and there is more pressure. But I think when you're, yeah, you just get in that zone and you're like, "right I've got the afternoon I've got to make so many of these things". I think one of the most stressful things for me is just about getting my timings right and juggling that with a day out of the studio and like, "oooh I've got to attach handles, so I've got to get in before they dry out", so all that sort of stuff, the timing bit is probably the most pressure. But that's the stressful part, because otherwise I just get in the zone, it's just yeah at that moment, it's just really nice and calming.– Maisie.

We highlight this example in order to argue that while Maisie experienced the positive hedonic impacts of pottery in association with it being calming or relaxing, the materiality of clay– in that certain steps needed to be completed in specific time periods to avoid issues associated with its drying– became a source of stress and frustration as a result of her pressure to produce pieces for sale. Here we see a tension arise between the processes and products associated with pottery; and importantly her hedonic enjoyment of pottery was at odds with her professional needs, which developed as a consequence of her skill leading her to pursue pottery as a means of employment. Failures that arise in pottery take on a different significance for Maisie. While the materially engaged process is not emotionally distressing since she has developed a feel for clay and is aware of the variability from a skilled positionality, professional demands evoke a different emotive quality as they impose time constraints and can affect her livelihood. Thus, these frustrations with timings emerged as a result of her professional involvement in pottery, motivating questions about the relationship between skill, leisure, labour, and enjoyment of pottery.

7 Conclusion

In this paper we have argued that the hedonic wellbeing impacts of engaging with clay arise through collaboration between clay and potter in material engagement, and thus the importance of attending to the specificity of interactions between person, materials, and environment. From this perspective, we understand such affordances to arise relationally for an agent in an embodied-enactive-ecological sense forming an individual's affordance space. Moreover, acknowledging the distinction between process and products in the clay therapy literature, we attend to both the processes of engagement and the co-constitution of form and cognition in creative acts of making. In particular, we highlighted how the materiality of clay, in relation to its malleability, three-dimensionality, openness to re-working, and reactiveness, contributed to the positive experiences our participants had of engaging in pottery. Furthermore, we argued that it is not just the experience of the clay itself, but the ways by which the process is engaged by specific bodies in collaboration in with different tools, that allowed for such wellbeing affordances to arise. At the same time, we discussed this in relation to Brinck and Reddy's (2020) arguments concerning the role of skill in emotional engagements with clay, particularly relating this to the idea of control, and the negative hedonic response that can emerge in pottery, including stress and frustration. These emotions in part arise in response to the volatile unpredictability of clay as it is engaged in pottery. However, we argued that these emotions come to the fore particularly in novices who have not yet accepted that they cannot always control the material. Accepting this is central to the processes of this craft, and the enjoyment of it, as well as to the development of skill. Furthermore, we discussed how for enjoyment or mindful experiences to emerge, some of the less experienced

participants felt they needed to approach pottery in the right frame of mind, with an attuned alignment, otherwise engaging in pottery held the potential to further contribute to their negative wellbeing state. With the development of skill these negative emotions are less strongly experienced, as potters develop a feeling of and for the materials and tools and are more accepting of the failures that can occur throughout the processes of pottery. Yet, we also argued that, in some cases, with the development of skill comes the pressure to monetise pottery, and that this can lead such frustrations to take on new or stronger salience for the potter as such unpredictability proffers a threat to their livelihoods. By highlighting the tensions that emerge between the positive and negative hedonic impacts pottery can have in relation to the development of skill we complicate our understandings of the pleasurable nature of pottery and emphasise the importance of considering the situatedness of such engagements when exploring the affective impacts of pottery.

More research in this area is needed. The potential of MET in psychiatry, focusing on the therapeutic and conceptual impact of material interactions with evocative personal objects and art based interventions (e.g., clay handling) has been explored in the context of dementia and schizophrenia (Malafouris 2019b; Malafouris and Röhricht 2024). These studies, by integrating embodied and enactive approaches, propose several promising directions for development aligning with existing practices in body and art therapy and haptic-focused treatments of several mental health conditions. Further studies are needed to explore how specific materials, objects and environments impact emotional regulation and cognitive processes. This includes examining the long-term effects of material engagement on neuroplasticity and mental health.

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Declarations

Conflict of Interest No potential conflict of interest was reported by the authors.

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