Artistic Anatomy of Pain Experience: An Exploration through Interviews and Image Making with First-person Interpretation

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Summary

Pain is a multifaceted experience modulated by contributions from multiple domains including cognitive, emotional, and sociocultural. Through in-depth interviews and image making as a participatory visual method alongside first-person interpretation, this study seeks to explore pain as human phenomenological experience. It subverts the dominant conceptualisations of pain with the aim of opening possibilities on relations between humans and pain, such as a relation with ease and peace. It first examines how pain has been viewed across time and space with a particular focus on mind-body dualism. Drawing on different dimensions of being, such as the body and the self, it then explores perception as a determinant of lived experience through the lens of phenomenology, psychology, Buddhist philosophy and neuroscience, which shows that perception is made up of predictions or habits based on what individuals have learned, influenced by multiple factors. Examples with words and images provided by the participants in the fieldwork offer powerful representations of, and a gateway to, the lived experience of pain, bridging what is seen or unseen with what is felt and experienced. Letting their inner worlds be seen confirms the individuality of pain experience and demonstrates that there are many possible relations with pain. While culture and religion are important factors influencing perceptions and experiences, I argue that contemplative practices may play an important role in changing habitualised perceptions to enable a different experience beyond concepts of the self.

Key words: pain, experience, perception, embodiment, self, contemplative practice, culture, visual method, in-depth interview

Declarations and Statements

DECLARATION

This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

Signed Huicong Luo (candidate)

Date

STATEMENT 1

This thesis is the result of my own investigations, except where otherwise stated.

Other sources are acknowledged by footnotes giving explicit references. A bibliography is appended.

Signed Huicong Luo (candidate)

Date 09/06/2021

STATEMENT 2

I hereby give consent for my thesis, if accepted, to be available for photocopying and for inter-library loan, and for the title and summary to be made available to outside organisations.

Signed Huicong Luo	(candidate)
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Date

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Preface

When I started this research, I told my husband about my view on pain (no mind no pain) during a bedtime chat and he said "oh, that reminds me of an old question: if a tree falls down in the forest and no one is around to hear it, does it make a sound?" It struck me, but no answer came to me there and then. However, it left me pondering. Answers come when you stop thinking. Now I can provide an answer to the question - no.

Sound is "the product of brain function that results from the detection of a very small part of the spectrum of air waves" and is not the "property of the falling tree". The air waves the falling tree produces fall in the range that human hearing sensors can detect and then the brain perceives the neural signals in the ears as sound (Cervero, 2012, p. 37). Pain works in a similar way, depending on perception. If two people are using the same water for washing up, one may say it is not hot enough; the other may say it is too hot. A thermometer may be used to check the temperature but that does not say who is correct because the experience is subjective, not measurable. Pain is more complex and there is no "thermometer" to measure it. So, what is pain? This seemingly easy-to-answer question has driven generation upon generation to investigate it. I am one of those curious beings looking for an answer and hoping to use pain as lived human experience to understand something about being human. I hope this thesis will offer a glimpse into the puzzle of pain and lived human experience.

At first, I felt uncertain about "seeing" the images produced by the participants, and I spoke to artists and tried to find resources on the rules of analysis or interpretation. After searching for a while, nothing really hit the spot, until I read Jung's *Men and His Symbols* (1990). I felt an affinity and then I came across the following:

The interpretation [...] cannot be turned into a mechanical system and then crammed into unimaginative brains. Imagination and intuition are vital to our understanding.

Thank you! I shouted out. So, imagination and intuition grounded by the participants' first-person interpretation seemed to be the way forward. That was a moment when I felt the uncertainties that I had had were worthwhile and necessary.

Another important influence was Mind and Life Institute who bring together different disciplines to bridge science and contemplative wisdom for positive change in the world. The conferences opened my eyes by showing me all the cutting-edge research which enriched my understanding of the human mind/experience and research in general, and taught me that contemplative practices not only can be studied but also can be studied in many ways, and the way I embarked on is valid. Prior to attending the first conference, I had not even heard of Mindfulness-Based Stress Reduction (MBSR) or Jon Kabat-Zinn!

So, an exploration on human experience informed by science and arts began. Only later did I realised this project might be responding to my "inner dichotomy" as Jung put it (Jung & Jaffé, 1967). Very much like him when he was a teen, I am drawn to the sciences and humanities but "in science I missed the factor of meaning; and in religion, that of empiricism". This might be an attempt to bridge the abyss.

Introduction

Project overview

We all know pain is inevitable, but a common picture of pain tends to be someone roaring "why...me?!" to a sky full of dark clouds. Is there a different picture? We can all relate to the word "pain" from our experiences, but we all make sense of it differently in our subjective experiences. Pain has been studied for centuries but is nowhere near well understood as we are the highly complicated Homo sapiens with culture, society, cognition, emotions, awareness; everything that makes humans human - it would be easier to study the pain experienced by sea cucumbers. Pain, as a subjective and multidimensional experience, is experienced in one's unique way, modulated by perception, which is: in Merleau-Ponty's view, the background all acts stand against and the basis of experience and understanding (Merleau-Ponty & Landes, 2014); in neuroscientists' views, predictions, hallucination or biases (Pronin, 2007; Seth et al., 2011).

This study investigates how humans with different conditioning experience pain. Is pain intrinsically bad? Or is it simply perceived to be bad? How does the experience differ if pain is perceived in other ways? What influences the perception? Can we open up the possibility of a new relation with pain? Answers to these questions may bring learning from diverse experiences that challenge the dominant conceptualisations of pain, with a view to alleviating suffering. It is by looking closely into the lived experience and making explicit the implicit that answers to those questions may be possible. As pain, the conscious experience, is "whatever the experiencing person says it is, existing whenever he says it does" (McCaffery et al., 1968), investigating it necessitates phenomenological approaches, and importantly, first-person interpretation.

Phenomenology is the attempt to describe experience "as it is", with its first rule "to return to the things themselves" set by Husserl (Merleau-Ponty & Landes, 2014, p. lxxi). This study is an investigation of experience or the interrelation between individuals and their worlds, from the first-person perspective, with a "phenomenological attitude" (Zahavi, 2018). Pain as a subjective experience involves

the topics phenomenology contributes to, such as perception, body, embodiment, emotions, behaviour, self, consciousness, as well as existence and non-existence (Zahavi et al., 2018). This study is informed by descriptive (transcendental) and hermeneutic phenomenology, aiming at "elucidating lived experience" and understanding the individual's "lifeworld" (Van Manen, 2016, p. 27). It fulfils the aims with an "open-minded and non-biased attitude" (Zahavi, 2018) and by taking a step back from the *natural attitude* in which we presuppose that the experienced world is independent of us (Zahavi, 2020). With intuition and imaginative variation, its target is to reach the essences of lived experience, alongside reflection and interpretation (Neubauer et al., 2019). For pain, which is commonly perceived as a negative intruder and dominated by mind-body dualism (which is dismissed by phenomenology), reexamination may bring about transformation because re-examining experiences that are often taken for granted may reveal or rediscover new or forgotten meanings (Laverty, 2003).

Pain experience has been studied using traditional quantitative and qualitative methods with verbal language (e.g., interpretative phenomenological analysis) and different focuses such as the psychological impact (Smith & Osborn, 2007) and perspectives on everyday pain (Aldrich & Eccleston, 2000). However, because pain is an experience that "shatters language" (Scarry, 1987, p. 5) - although some argue that it is shareable without limits (Bourke, 2017) - and has an intrinsically private nature, second-person and third-person methods may not be the most suitable. Moreover, language seems to "intellectualize" awareness (Van Manen, 2016, p. xviii) while pain as experience is such that "the facts are undeniable and yet cannot be formulated in intellectual terms" (Jung, 1990, p. 91). Thus, with first-person interpretation, this study uses art as language (Goodman, 1969) and verbal language to bring forth understanding of experience "that in a curious way seem to be non-cognitive" (Van Manen, 2016, p. xviii).

Arts-based methodologies are increasingly regarded as an important approach for understanding and examining experience in areas such as health, sociology and cultural studies (Mitchell et al., 2011). There have been studies involving images, ranging from neuroimages to photographs, such as in: *Perceptions of Pain* (Padfield,

2003), a project attempting to represent pain using co-created photographic images by the artist and pain patients; and *Photovoice* which combined photographs and text to explore different aspects of pain experience (Baker & Wang, 2006). They are useful participatory approaches, although concerns about insufficient advancement of participant voice have been raised for the Photovoice research design (Evans-Agnew & Rosemberg, 2016). In a study combining art therapy and neurobiology (Hass-Cohen et al., 2009) to assess the psychosocial dimensions of pain experience and inform interventions, drawings and neuroimages are presented and explored. Drawings have been used to assess perceptions of illnesses, such as Broadbent et al.'s (2009) study of headache sufferers, in which the analysis was done using a third-person approach. The use of images is a valuable tool suitable for different purposes and approaches, however, for participatory methods especially, it is essential to ensure the participant voice is fully represented.

For this study investigating the subjective pain experience and perceptions influenced by different factors, fieldwork is conducted with a method combining in-depth interview and image making, based on the phenomenological approaches mentioned previously with participants' first-person interpretations. In such a way, deeper insights into their lifeworld could be gained than if language alone is used. To explore the conditioning factors, participants of different age and gender are selected from various cultural and religious backgrounds with or without contemplative practices. Because there are a multitude of factors such as cognition and personal history, the focus of this study is given to contemplative practices¹ with a secondary focus on culture.

It can be observed that contemplative practices play an important role in experiencing a more harmonious relation with pain, regardless of the participants' cultural and religious backgrounds. This resonates with findings from studies in different fields (e.g., neuroscience) that show contemplative practices improve pain conditions, reduce pain intensity and unpleasantness, and increase psychological wellbeing (Hanley & Garland, 2014; Romero-Zurita et al., 2012; Zeidan et al., 2015); a few qualitative

¹ This term is inclusive of meditation and other practices. For more details, see II.2.2

studies also suggest positive impacts from contemplative practices on sensory and affective components of pain and general wellbeing (Luiggi-Hernandez et al., 2018; Morone et al., 2008; Tul et al., 2011). This study, from a different lens, offers insights to pain experience and support for how transformation of pain experience is possible when one is in touch with the human universal, or in scientific language, "the metacognitive self-regulatory capacity" (Dorjee, 2016). Contemplative practices may enable a progressive change from being captivated by external phenomena and bound in the self-construal, habits, social conditionings to pure awareness, the knowing, or what a psychologist describes as "the most advanced mode of existential awareness" (Dorjee, 2016) - that ground which has many names but is beyond names.

Building on a body of work on pain, including theories and mechanisms of pain from the East and the West, the sciences, views on the self and body ownership, Buddhist and Taoist philosophy and meditative psychology, culture and symbolism, this thesis proceeds incrementally from theories to practices which in this case refer to the realworld experiences of the participants. Section I reviews existing works from medicine and science to provide an up-to-date understanding of what pain is, namely a multifactorial experience inseparable from perception, in which body and mind are enmeshed, with a particular focus on critiquing the mind-body dichotomy and the treating of the body as a machine. Section II investigates how experience and perception of pain come to be especially under the influence of contemplative practices and culture. Examples and anecdotes are used to offer support throughout the thesis, but Section III serves as a hub for the fieldwork with a careful selection of detailed case studies from the sample, and explores how transformation could be possible. Although the different sections have different focuses, sometimes a comment in one is expounded in another. Some overlapping may seem repetitive, but it may be perceived as reinforcement.

Even with the use of images, the limits of language remain one of the limitations of this study as the interviews, interpretations and even writing all involve language. This study is also limited by having only one researcher; it could have benefitted from multiple and interdisciplinary authors, and collaboration on the interpretation of the data.

What is pain?

Pain is a puzzle as well as a gateway to human experience. It is a multi-dimensional phenomenon that should be looked at from all angles. Otherwise, one is like a blind person who touches one part of the elephant and assumes an elephant is just like that particular part: "oh, an elephant is like a brush" the one touching the tail may say.

Pain is a name, as in the "beetle in the box" analogy Wittgenstein gives: imagine everyone has a box but no one can peep into the other's boxes. Each describes what they see in their own box as "beetle" but what is in the box might be completely different, constantly changing or nothing at all (Wittgenstein, 1983, p. 100). It is difficult to access others' subjective experience, but a name is useful for communication in a social context.

Pain is a perception. Perception is the basis of human experience and understanding (Merleau-Ponty & Landes, 2014). A doctor asks a patient, "where is the pain?" The patient may answer "here", pointing to where they feel the noxious stimuli - they think the pain is in the affected body part; or "in my head" from a patient studying neuroscience — they think the brain produces the pain. Depending on how one perceives it, pain can be in the body, in the mind, or even in other people. Depending on how one perceives it, it can be an unwanted object, an old friend, a natural phenomenon, or a learning experience. Take perceiving an object as an example: perceptual experience is the result of the interplay of presence and absence (Zahavi et al., 2018). Similarly, perceiving pain involves present conditions, and memories and expectation that are not present. To perceive, according to Merleau-Ponty, means having a body living in a world dealing with the environment (Merleau-Ponty & Landes, 2014). The word for experience in Chinese language is 體驗 (體 embodied; 驗 effect, evidence), meaning literally embodied experience.

The way pain is perceived draws on questions on consciousness, self, the mind-body matter and other aspects. The mind is actually embodied. As Merleau-Ponty puts it, the "body is something like a natural subject, or a provisional sketch of my total being". Ancient sages such as the Buddha and Zhuangzi asserted that human beings are a

psychophysical unity, and today modern science has shown us physical pain and mental pain are processed in some of the same regions in the brain (Eisenberger, 2012); the so-called mental and physical pain are part of the same circle. How do you break a circle? Is it still a circle after breaking? Perhaps because of the prevalence and privilege science has had, the gap between mind and body has widened. That is when problems begin. The "artificial" dualism is embedded in modern Western medicine, which is problematic in medical practice, especially the field of psychiatry in that disorders are conceptualised as "mental" or "physical" (Gendle, 2016). To challenge this mind-body dualism is an important step towards a better understanding of pain and a more holistic and effective treatment, as well as a healthy relation with pain and a different experience.

Pain is not a property of a sensation. A soldier pierced by an arrow in battle may not call it or feel it as pain whereas someone being bitten by a tropical mosquito may tell you it is painful². It is the brain that processes the sensation as pain, with factors such as sensory, cognition and emotion. One may then say pain is "all in their head" (Wiech, 2016), but Dr David Butler, a leading pain scientist, has a bit more to say, "it is not just in your head. It is in your body, in your life [...] the brain may well be boss but it is much bigger than just in your head" (Butler, 2018). Here what they are saying are both true, just referring to different aspects of pain. From a broader perspective, pain is not only neural activities but has a physical, mental and social impact, which is referred to as biopsychosocial perspective. As Howard Fields expresses, "the meaning of neural activity lies outside the brain" (Coakley & Shelemay, 2007, p. 39).

Pain is a subjective experience, felt by the person, not the brain (Sullivan et al., 2013). That certain experiences are generally associated with increased activity in certain regions of the brain is not a reason to reduce consciousness to neuronal states (Zahavi, 2004). Everyone experiences pain in one's unique way even when neuronal states look similar. The individual differences are real and of great clinical importance (Coghill,

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² An actual account of a participant of this study during a video interview.

2010) and more importantly, pain is real for the person in pain no matter one thinks it is in the head, the body, life, or shown in tests.

How one responds to pain is influenced by multiple factors including the current physical and psychological situation, one's past experience, and expectation, rather than by biology. A depiction in Buddhist scripture goes:

when an untrained person [who is not engaged in the practice] is touched with a feeling of (bodily) pain, he is resistant. He sorrows, grieves and laments; as if he were pierced by two arrows, one physical, one mental. But the well-instructed disciple of the noble ones, when touched with a feeling of pain, does not sorrow, grieve, or lament. He does not get distraught. It is as if he were shot with one arrow but not another one. So he feels the pain of only one arrow. A well-instructed disciple [not identified with the feelings] senses pleasure, pain and neutral feelings and disjoins from them (Thanissaro, 1997).

The first arrow is the somatosensory factor in pain process and the second one involves the psychological elements which influence pain perception. Apparently, one can master the second arrow – not in the sense of stoicism, but of being skilful. Following this understanding, although pain is inevitable, suffering is optional. When one can disjoin from the feelings with discernment, one does not suffer. It is not easy to do but it seems contemplative practices can help realise that.

Pain as a subjective experience, is difficult for words. With verbal language, a cognitive apparatus", as Max van Manen (2016, p. xviii) puts it, "we create some-thing (concepts etc) out of no-thing (lived experience)". There are many manifestations of the limits of language. For example, a professor of architecture found himself unable to convey the essence of modern and post-modern architecture to his students through language (Kvale, 2015). Pain is perhaps the most extreme case, in that, as Scarry (1987, p. 6) writes, it "causes a reversion to the pre-language of cries and groans". It is also "capable of being completely invisible to the observer" (Jackson, 1996). Clinicians cannot understand and/or empathise in some cases, more so when nothing is showing in test results. Frustration can be experienced by both parties, more so for the patient when told "you are imagining it". Even those closest to the person in pain cannot truly understand the feeling no matter how hard or well they describe it verbally. The professor of architecture turned to artistic means and used collages with which he was more able to express his idea than through words. Art may be able to capture the lived

experience since it "speaks" multiple languages which can tell us things other means fail to capture, with its broad functionality (Dewey, 1934).

Method

"The method of phenomenology and hermeneutics is that there is no method" (Van Manen, 2016, p. 30), but there is historical ground providing a source and guide. This study stands on the shoulder of a body of work and is conducted with an "openminded attitude" and in a "theoretical framework" of phenomenology (Zahavi, 2020). Starting with deeply questioning the phenomenon of pain, this study investigates the lived experience of pain through fieldwork from which examples, anecdotes, and images were obtained.

Fieldwork

Following approval by the Ethics Committee of College of Arts and Humanities, Swansea University (see Appendix 2), the fieldwork was carried out with care throughout all stages given the sensitive nature of the topic – the pain experiences ranged from a foot injury to a suicide attempt. Participants were notified that they could stop or withdraw at any time without giving any reason. As the interviewer, I regarded the interviews as interactions between two human beings rather than a mechanical information gathering activity, and listened and responded to the participants with openness, respect, and mindfulness, supplemented with empathy and compassion. The interactions produce knowledge (Kvale, 2007) and the participants were the "co-investigators" (Van Manen, 1990, p. 98) with whom I worked towards sense-making of lived experience.

To borrow the words of Kvale, the fieldwork in this study is "exploratory and descriptive" which emphasises "contextuality and heterogeneity" and is important for scientific inquiry (Kvale, 2015, p. 288). It involves in-depth interviews alongside a visual method with first-person interpretation. Interview is a useful tool for gathering indepth information of the lived world of the participant, capturing interpretations of the described phenomena (Kvale, 2007). This powerful tool uses language, fundamental to "humanness" (Van Manen, 2016, p. 38), for understanding lived experience. However, it does have its limits, especially for pain experience with a

nature of ineffability. Thus, in this study, interview and a visual method work together with their respective benefits to provide rich and reliable data.

Visual materials have been used increasingly in social science and other academic disciplines, mostly in the forms of photos, diagrams and maps (Rose, 2016, p. 15), not to mention the neuroimages which provide remarkable insights into human experience. However, neuroimages are just a means that covers one element of the totality of experience, as neuroscientist Christoff (2020) mentioned at the Contemplative Research Conference. Experience needs to be understood from more than one angle and with more than one tool.

In this study, an art-based visual method of image making, or more precisely drawing (as that was the medium most participants chose) is used along with verbal discussions. Art-based methods such as drawing are a good tool for investigating the experience of pain, an experience of everyday life, as well as for the less touched ground of being human. They are commonly used in phenomenological studies as Heidegger and Merleau-Ponty did (Van Manen, 2016, p. 74). They are fitting for phenomenological studies as work of art comes from the underlying layer of consciousness which is "the basic pattern of the relations of the live creature to his environment" (Dewey, 1934, p. 155), and one way to define consciousness is as any subjective experience (Koch, 2019).

Sprung from the "experiential lifeworld of human beings" (Van Manen, 1990, p. 96), the images can be regarded as nonrepresentational work interested in conveying "the perceptual, bodily and sensory experience created in encounter with specific materials" (Rose, 2016, p. 10). Drawing has long been a tool for investigating the conscious and unconscious (Mitchell et al., 2011), used for example by Jung who drew images of the unconscious to understand it. Whether the images are considered "nature" or "art" (Jung & Jaffé, 1967, p. 230), drawing is a creative embodied mindful process, "expressively refined excretion of natural energies engaged in our living interaction with our natural and cultural context" (Shusterman, 2010). Moreover, drawing is easy and low-tech on one hand; on the other, not originating from specific theoretical contexts, it can be used to answer a broad range of research questions, particularly those not related to visuality (Rose, 2016, p. 308). The images give shape

to experience and allow the invisible to be seen with immediacy and tangibility which goes beyond the verbal.

As beneficial as drawing can be, interpretation may be difficult for others and can vary from person to person. As Hall (1997, p. 9) emphasised, it is not possible to have a single or "correct" answer to the question "what does this image mean?" And in fact, it is not just the visual that is open to interpretations; everything is. As a result, a combined method of in-depth interviews with image making and first-person interpretation is necessary for the purpose of the study. Furthermore, discussions on the drawings with the participants as "collaborative meaning making" (Mitchell et al., 2011) can facilitate a sound understanding of the drawing and their experiences, stimulate talk on things that the researcher had not considered (Rose, 2016, p. 315), and as it was in this fieldwork, evoke unexpected or hidden aspects. It brings a richness that pure talking would not have achieved – it "captures the ineffable" as Weber noted (Weber, 2008, as cited in Mitchell et al., 2011). Some researchers argue that the use of drawing as a research method is critical with children as it strongly stimulates communication to get into their inner world (Mitchell et al., 2011). I would argue the same applies to adults, especially for a study on phenomena that is often known for exceeding the limits of verbal communication. The drawings of the participants and their own accounts offered gateways into their lifeworld, bringing forth what is felt and experienced.

Participants and Recruitment

The criteria for participation in the study were as follows:

- over the age of 18
- understands English and/or Chinese
- has experienced pain or is experiencing pain

Recruitment was largely by word of mouth: from various settings including universities, Mindfulness/Vipassana communities, Buddhist monasteries and Christian communities³, as well as personal connections.

The overall sampling was a mixed strategy from purposeful to opportunity sampling, as some were introduced by participants who had finished the interviews and found it interesting, and some offered to be interviewed after conversations at events and conferences. Initially, the planned number of participants was around 20 and they ideally would have been evenly distributed across genders and cultural backgrounds. As the project progressed, the number of participants grew. The current sample consists of 54 responses, of which nine (numbered in red) were conducted by online survey or email correspondence (see Appendix 1).

Forty-eight participants produced visual images with some producing more than one piece. The demographic information was identified by the participants themselves (see Appendix 1). The participants were named P+number in this paper, e.g., P15 means participant number 15.

Data collection

Face to face interviews were conducted between June 2018 and July 2019 at people's homes, offices, libraries, galleries, coffee shops and event venues. There were also phone/video interviews using messenger apps and these participants sent the images they made via e-mail or the app. The time spent per interview varied from 40 minutes to 2 hours as participants were given as much time as they needed for answering the questions and making the images. In addition, there were eight online survey and one email response where they answered the questions in writing. Without personal interaction these forms of data collection were not as rich, but they did provide basic answers which contributed to the overview.

The interviews were semi-structured, with a series of open-ended questions and follow-up probes, followed by the participant's own account of the image that they

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³ There had been a focus on religion at the beginning of the project but it was later changed. But the data collected were not discarded.

made. They were provided with materials for image making including A4 paper, pencils, colouring pens, crayons, watercolours, scissors, coloured paper, glue and pins. All the materials provided were chosen for accessibility and akin to ones one would use in childhood to help set the participants at ease instead of intimidating them. The participants were informed that they could do whatever they want with the materials, but all of them involved drawing; two also used glue and pins. The interviewer was present at all times as no participant requested to be left alone during the image making.

The interview procedure was:

- 1) participants read the information sheet and sign the consent form
- 2) discussion on a series of open-ended questions
- 3) image making (sometimes talks also involved at this point)
- 4) discussion based on the image made

Questions asked:

The sequence of the questions and the way that they were asked varied. But the questions were based on the following (the questions were revised after the first pilot interviews):

- 1) Can you share your pain experience with me? Any experience that you would associate with pain.
- 2) Can you describe it?
- 3) Did you use painkillers (or other medication)?⁴
- 4) What did you do when you experienced pain? How did you feel?
- 5) Would you say you were suffering then?
- 6) How did/does it affect you as a whole being or your life in general?
- 7) What does pain mean to you?
- 8) Would you call the pain your pain? Do you think you own it?

⁴ If they talk about experiences such as headache or backpain.

- 9) Is pain a positive, negative or neutral thing to you? It is not a multiple-choice question.
- 10) Can you make an image about the experience of pain and tell me about it afterwards? Do whatever you want with the materials.

<u>Analysis</u>

First of all, the participant is understood as "an embodied and socially and culturally embedded being-in-the-world" (Zahavi, 2018). The analysis process started during the interviews, with observation, interpreting the meaning, and obtaining confirmation of the interpretation. It is commensurate with the steps of analysis and main approaches to analysis of meaning suggested by Kvale (1996, p. 189):

- 1) participants describe their lived experience;
- 2) they discover new relationships and see new meanings during the interview (which was often noticeable in this study);
- 3) the interviewer condenses and interprets the participants' meaning and describes it back to the participant to get only one possible interpretation;
- 4) the interviewer interprets the recorded and transcribed interview with software, focusing on the participants' own understanding and providing new perspectives from the researcher;
- 5) re-interview which is to send the analysis and interpretation back to the participants for their feedback.

The fifth step was not always possible for each participant, nor was a "possible sixth step" (to include participants' action), but it would be interesting to follow up on the participants' change in action from the new insights they achieved from the interviews.

Procedures of analysis as follows:

The interviews were first transcribed ⁵ and read through as a whole. With the computer program NVivo12, they were then divided into meaning units ordered by themes, which allowed connections between the units and the themes of this study

⁵ It also involved translation from Chinese to English if the interview was conducted in Chinese

to be identified. This is a process of breaking down, comparing and categorising which also enables quantification of the frequency of an addressed theme (Kvale, 2007). This is in line with what is called "empirical phenomenological analysis" (Kvale, 1996, p. 194) concerning the faithfulness to the phenomena.

Interpretation was done with an interest in the perceptual and experiential using the analysed text, including the participants' own accounts of their images created, with the images on the side. In this way, it validates the interpretation with double hermeneutic given that the drawings are open to multiple interpretations. The images were looked at by: how they were represented as a whole, in detail and the overall impression they made on the researcher. As the only researcher in this project I had to stay mindful at all times to minimise the influence of my own perception on the result, although any so-called objective study is based on human experience which is subjective and what objectivity means comes from "intersubjective agreement", which makes objectivity itself a subjective concept (Kvale, 1996, p. 285). It is true that human experience is subjective; what is also true is that humans have the ability of reflection.

The interpretation of the drawings was done with "a passionate engagement with what you see" which determines successful interpretation (Rose, 2016, p. xxiii), grounded in the participants' own accounts, and was influenced by Kvale's (2007) "no standard method exists" and by Jung's insight that imagination and intuition are central to understanding (1990). As I was trying to find "rules" in books or from experts, it reminded me of a Chinese proverb: blindly believing everything in a book is worse than having no book (盡信書不如無書). Jung argues that rules can be helpful but if not applied with wisdom, the most intelligent person can go wrong without intuition or feeling. To understand symbols, we are to deal with the wholeness of the person who produces them, including cultural experiences and other aspects of being in the world. He also suggests not to have preconceptions when meeting with each case, as he puts it "consider every case as an entirely new proposition about which I do not even know the ABC" (Jung, 1990, p. 92). He seems to be on the same page as Husserl's

epoché, Zhuangzi's heart fasting (心齋) and Laozi's baby-like state (as in 能嬰兒乎)⁶. I gained confidence from his view that imagination and intuition are not only valuable to the artist but also are vital in science. I consider myself both an artist and a scientist, and more importantly, "an honest investigator" (Jung, 1990, p. 92).

The fieldwork offered different perceptions and experiences of pain and perhaps we can learn from the differences and enable a new relation with pain. It is those variables that give us the opportunity for transformation of experience.

Why does it matter?

From a pragmatic perspective, treating pain inappropriately and ineffectively increases health care costs (Gatchel et al., 2007) and mortality rates (Paulozzi et al., 2011), as well as lowering the patients' quality of life. Pain and illness change what one previously takes for granted and have an impact on one's being in the world (Zahavi, 2020). It is an urgent matter to have a better understanding of pain experience, with its modulating factors, and to approach it in an appropriate way both for the person in pain and health care professionals.

Painkillers seem to be seen as the one-size-fits-all solution and have seen rapid increase in usage as a response to pain, but the use remains controversial (Rosenblum et al., 2008). Painkillers are one of the top 10 most prescribed drugs in the USA amongst other drugs used to treat serious illnesses such as hypertension and hyperlipidemia (Fuentes et al., 2018).

Taking painkillers might bring a quick and easy temporary relief, which it is exactly why people do it, but they are not helpful for the underlying health conditions and can be addictive. Due to the recent development of pain being quantified, pain treatment is titrated to effect on pain intensity levels, which leads to opioids being over-prescribed and over-consumed to reduce pain intensity (Sullivan & Ballantyne, 2016). This can result in overdose and death: in the USA, the number of accidental overdose deaths

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⁶ Zhuangzi and Laozi's describe meditation as purification of the mind in these ways.

from prescription opioid users is more than from cocaine and heroin combined (Paulozzi et al., 2011); 74.3% of prescription drug overdose deaths in the USA in 2010 were accidental, of which analgesics were most commonly involved (Jones, Mack, & Paulozzi, 2013). Another study focusing on analgesic-induced overdose fatalities shows "Whites and Latinos were the only racial/ethnic groups to exhibit an increase in overdose-related mortality" in 1990-2006 in New York City (Cerdá et al., 2013), which also indicates the sociocultural aspect of pain experience. The USA is not alone. Unintentional prescription opioid overdose is prevalent worldwide and is a public health problem. Even in cases of nonfatal overdoses, there are significant consequences, including cardiac and muscular problems, cognitive impairment and hearing loss (Galea et al., 2015). In addition, these drugs are not helpful in regaining health but have become the most prevalent addiction today. Let us not forget that cocaine and heroin were once also medical drugs.

Understandably, when pain comes, we are so conditioned to get rid of it that when there is no other method known to the sufferer or the doctor they would go for the cheapest and easiest way to just "do something" for the pain. However, this has consequences, serious ones. This study investigates pain experience and explores other possible ways to "do something" for pain.

I. Pain

It seems that we have already known a lot about pain. So much that it could veil what we can learn about the phenomenon. What is pain? This seemingly easy question has no easy answer. On one level, it is like Wittgenstein's beetle, but for convenience let's call pain-related experiences "pain"; it is a subjective descriptor. On another level, it is a complicated scientific, medical, anthropological, sociocultural and philosophical matter, and more.

Across ethnic groups, age groups and genders, every one of us has experienced pain to varying degrees. Joint and back pain are the most prevalent conditions that cause people to seek medical attention (St. Sauver et al., 2013). Being prevented from doing what one enjoys because of back pain or losing a loved one are pains too.

As a pervasive and multifactorial experience among human beings, pain has been studied and discussed in various areas including the sciences and arts. It perhaps attracts most attention in the medical world. The idea that (bodily) pain is a product of musculoskeletal disorders is out of date (Butler, 2018). Pain is not merely a simple pathological problem, and many people suffer from pain without any pathological cause or diagnosis. A lot of clinical pain is much more complicated than those acute pain experiences. A body part being hurt by external forces is easy for people to understand from a structural and pathological perspective, but not for chronic pain (Moseley, 2007).

Pain does not have substance that can be scanned or measured. A doctor can only estimate pain by listening to the patient's description. Neither can it be easily defined. In the 1940s, the Welsh neurologist Thomas Lewis wrote, "pain is known to us by experience and described by illustration" and he went so far as to say that the attempt to define pain "could serve no useful purpose" (Cervero, 2012, p. 30). That did not stop people from trying.

The International Association for the Study of Pain (IASP, 1994) defines pain as "an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage". This acknowledges the reality of pain without pathophysiological basis (Williams & Craig, 2016) and primarily

recognises pain's subjective nature, but it seems to come from a dualistic framework. That is, if the pain is not caused by identifiable physical damage, then it is "in the mind", which entails less legitimacy (Arnaudo, 2017). Other definitions have also been presented, such as a concise one by neuroscientist Charles Sherrington: "the psychical adjunct of a protective reflex" (Cervero, 2012) which points out an important nature of pain; and a newer one proposed by Williams and Craig (Williams & Craig, 2016): "pain is a distressing experience associated with actual or potential tissue damage with sensory, emotional, cognitive and social components", which seems to cover the essential aspects of pain. Margo McCaffery (1968), the pioneer of the field of pain management nursing, asserted "pain is whatever the experiencing person says it is, existing whenever he says it does." Perhaps none of the definitions is perfect or complete but they show that pain is an experience, and therefore, subjective. So, for this study, pain is understood as whatever the participant says it is with its multiple factors, considering the views above.

Pain experience (or any experience) is inseparable from personal perception and social influence (Good, 1992) and can include perception of somatic events, the past, the present and future (Williams & Craig, 2016). Fear and avoidance (Crombez et al., 2012), catastrophic thinking (Wideman & Sullivan, 2011) and social environments (Craig, 2009) all contribute to shaping the experience of pain, just as Moseley concludes, "pain is modulated by many factors from across somatic, psychological and social domains" (Moseley, 2007), or Melzack and Katz (2013), "pain is a personal, subjective experience influenced by cultural learning, the meaning of the situation, attention, and other psychological variables."

The perception of pain involves memory of the past, thoughts about the future and the meaning one makes out of it. The expressions used in our everyday language, "once bitten, twice shy" in English, or in Chinese "一朝被蛇咬,十年怕草绳" (lit: bitten by a snake once, scared of a rope for ten years) present a vivid picture of the experience of pain. The experience can leave an impression which can be so strong that merely a symbol of it can invoke pain. It surely is suffering if one fears a rope, or every time when a rope is present the pain is felt, for ten years. This pain is in fact an embodied experience. It can be explained in neuroscience, by the predictive coding

model of perception, that the present experience is suppressed by predictions of the evoked signals from the perception of the bodily condition, or interoception (Seth et al., 2011). However, if one is no longer ignorant and acknowledges this process instead of reacting blindly to it, the experience could well be different.

I.1 How much have we understood pain?

Acute pain is essential and necessary for human beings as an alarm and protection from harmful stimuli. Without the ability to perceive pain when injured, people with congenital analgesia or Congenital Insensitivity to Pain (CIP) continue to damage their bodies, which leads to significantly shortened lifespan. While acute pain is useful for survival, chronic pain, like an unremitting false alarm, does not seem to have a biological function and is costly both for health care and people's quality of life.

Pain is both a sensory and an emotional experience. According to pain specialists (Reddi & Curran; Zeidan, 2018), there are free nerve endings of two primary afferent Aδ and C fibres all over the body which are nociceptors responsible for detecting noxious stimuli to cause the brain to take action to defend the body from danger. Aδ fibres are associated with tingling needle like fast pain and C fibres with slower, dull and burning pain. They transmit the sensory information to nociceptive-specific neurones. The information is then taken to the dorsal horn of the spinal cord where complicated interactions happen. These interactions decide whether activities from secondary afferent neurones are needed. If they are, the process first goes to the thalamus and then the S1 (Primary somatosensory cortex) which encodes the intensity and locality. From there it goes to the S2 and then the insula where it is evaluated. In a word, it is affected by cognition, emotion, meaning, memories and many more factors as pain experience activates a large brain network including, but not limited to, primary and secondary somatosensory, insula, anterior cingulate cortex and prefrontal cortex, and the thalamus, all of which are essential for pain perception. Figure 2 (Bourinet et al., 2014) illustrates this pain pathway.

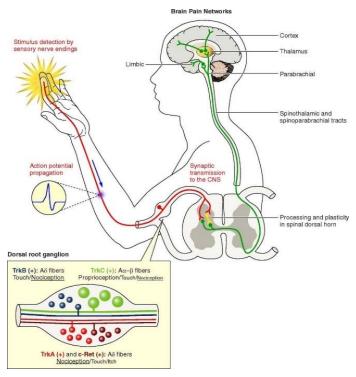


Figure 2 Pain pathway (Bourinet et al., 2014)

Thanks to technological advances, especially the use of functional magnetic resonance imaging (fMRI), the understanding of pain has evolved. So have theories of pain, from Descartes' *Treatise of Man* to Melzack and Wall's Gate Control Theory over the past few centuries. Moayedi and Davis discuss this evolution. Descartes believed pain was a warning of damage to the body. His famous drawing of a foot near a fire shows the mechanism of his theory (see Figure 1): the fire (A) activates the foot (B) in which

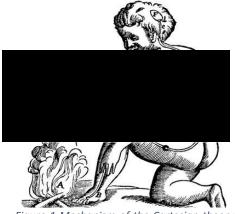


Figure 1 Mechanism of the Cartesian theory. Drawing by La Forge, downloaded from https://journals.physiology.org/doi/full/10.1 152/in.00457.2012

particles travelled from the sensory receptor to the brain via the nerve. He described nerves as tubes to transport sensory and motor information. He had a "gate" as well, existing between the brain and the tubes, which would be opened by a sensory cue to allow *pneuma*⁷ to go through the nerves and convey information to the brain and then travel back down to make the foot move away from the fire.

⁷ Pneuma (Greek: $\pi v \epsilon \tilde{u} \mu \alpha$), translated as "breath of life", is the vital spirit or soul in Stoic thought. It is sometimes referred to animal spirit.

This description later became Specificity Theory which emphasised that a specific fibre leads to a specific pain pathway to the specific brain region, and described primary afferents only responding to stimuli higher than a threshold. There are still followers of the Cartesian theory of pain today who keep looking for tissue damage or the pain generator on the body. As opposed to the Specificity Theory, the idea of pain being different to other senses and inherently unpleasant was discussed in the 1940s, deriving from Plato and Aristotle's view on pain as an emotion. Later, a Pattern Theory, which rejected that pain was one-way traffic and disregarded the findings of Specificity Theory, suggested that bodily sensation was caused by a specific pattern of neuron firing (Moayedi & Davis, 2012).

In 1965, Melzack and Wall (1965) proposed Gate Control Theory which seemed to provide an explanation for the contrasting Specificity and Pattern theories. It stated that a Gate Control System "modulates sensory input from the skin before it evokes pain perception and response". It describes the mechanism like two-way traffic in the central nerve system that has "gates" blocking or letting the signals travel up to the brain depending on other peripheral nerve fibres, before the signals are processed according to the person's current emotions, past experience, environment and context. Afterwards, downstream actions are taken determining the type and degree of pain. It is regarded as one of the most important theories of pain as it pointed out the brain's role in the event of pain. Even though it has inaccurate details and is now considered oversimplified, the Gate Control Theory stimulated research in the field and is elucidating and opening up the interdisciplinary conversation on pain (Coakley & Shelemay, 2007).

The dynamic brain processes result in psychological factors such as past experience and meaning being taken into account on pain processes (Melzack, 1996). The processes described in the Gate Control Theory are only one important part of pain. Melzack later proposed a neuromatrix theory which indicates that pain is a multidimensional experience. Through the "body-self neuromatrix", which is a massive neural network shaped by biological factors and sensory experiences, repeated processes of input and output form patterns which produce pain. These patterns can be activated in the absence of sensory input and are influenced by

somatic, cognitive and affective factors. Figure 3 shows a summary of this multidimensional process and experience of pain. It points to a different direction than the Cartesian theory (Melzack, 2001).

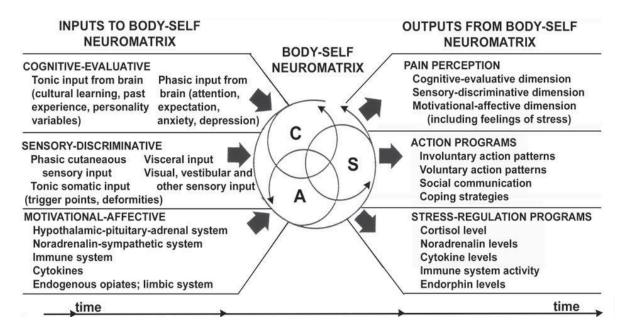


Figure 3 The Body-self neuromatrix shows the multidimensional process of pain experience (Melzack, 2001)

These modern theories were examined in many animal tests involving the application of injury to animals and the recording of their subsequent behaviour in different environments. The findings implied that the injury caused behavioural changes and that pain behaviour did not have a corresponding relation with the state of the bodily tissues. In summary, in animals, pain is not a measure of tissues state and pain and nociceptor activity show no corresponding relation. Later, human experiments involving non-harmful noxious stimulations confirmed the findings to support the anecdotal evidence that "pain is modulated by many factors from across somatic, psychological and social domains" (Moseley, 2007).

Many theories of pain have been put forward. Some of these have determined how pain is treated, sometimes unsuccessfully, such as neurosurgical lesions, which is a result of Descartes' influential theory of body as a machine (Melzack, 1996). Albert Einstein once told Heisenberg, the 20th century German physicist, "it is nonsense all the same [...] in reality the very opposite happens. It is *theory* which decides what we can observe" (Heisenberg, 1972). Theory is nothing but perception. Just as theories

can affect action and result, how one perceives pain plays an important role in the experience of pain.

I.2 How about other views?

Traditional medicine can provide other perspectives. As defined by the World Health Organization, traditional medicine refers to "the sum total of the knowledge, skill, and practices based on the theories, beliefs, and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health as well as in the prevention, diagnosis, improvement or treatment of physical and mental illness" (WHO, 2019). This term covers a broad array of practices and theories, but in this section, Traditional Chinese Medicine (TCM) will be discussed given its "global influence" (Cyranoski, 2018).

In TCM, health is not distinct from illness, i.e. health is the balanced and illness the unbalanced state, which contrasts with Western medicine's view that health and illness are divided (Tseui, 1978). While Western medicine focuses on a microscopic scale, TCM is one of macrocosm and views humans as microcosm of the universe. When it comes to pain, it is explained with a combination of molecular and cellular biology by Western medicine, and is treated with a series of drugs such as analgesics and anti-inflammatories (Basbaum et al., 2009), and in some cases replacements and different kinds of -ectomies. The treatments are based on pain as a result, whether caused by inflammation or other reasons.

By contrast, traditional medicines tend to view pain as a manifestation from a holistic perspective. TCM views the whole being as one, and one with nature. The body, situated in nature, is viewed as energy fields where qi or vital energy flows within the framework of the body and constantly interacts with the environment. Qi is very important in Chinese traditions and everything has (is) qi, even a grain of rice, as a Chinese parent would tell a child unwilling to eat rice: without the rice qi, you will get hungry soon. Qi, according to Paul Unschuld, may be the same thing as "spirit", "soul", "psyche" or any other name that has been suggested for the intangible thing that makes life, life. Or, maybe these all coexist; that remains unknown. That is why he calls

it "X", and "life is a body augmented by X" (Unschuld, 2009). It may also be understood from a physics viewpoint that everything is energy and when the energies are imbalanced, it can manifest as pain and illness.

Pain and illness are phenomena of energy blockage and imbalance caused by three factors, the endogenous(内因), the exogenous(外因) and neither of the two (不內外因). Endogenous refers to excessive emotions including anxiety, anger and joy; exogenous refers to factors from the environment such as wind, cold, dampness (these factors can also be extended to social, political and economic factors); neither of the two refers to accidents, injury, parasites, etc.

TCM aims to heal or assist the body's healing power rather than to cure or fix, with the focus on the person's whole wellbeing. There is a certain sense of respect for nature, as the body is part of nature and has its wisdom. While pain implies that the natural flow of energy is obstructed, the lack of perceivable symptoms or pain is not a necessary indicator of good health. Also, from 黃帝内經 Huang Di Nei Jing, written over two thousand years ago and thought to be the earliest Chinese medical text, there is a line "聖人不治已病治未病" meaning "the sages treat illness that is not yet an illness" (take preventive treatment). They notice the slightest imbalances of the qi using four diagnostic methods (四診) to understand the overall condition of a person: inspection; listening and smelling; inquiry; pulse taking. For example, a stomach pain patient's imbalanced liver qi may be detected using the first two methods, and with the second two, the doctor may find that the patient's mind state and imbalanced liver qi contribute to each other, which manifests as stomach pain. So, the treatments are then tailored for this root cause, i.e., imbalanced liver qi, for the patient. Studies show that TCM treatments including herbal medicines and acupuncture are effective and safe for various chronic health conditions including conditions believed to have no cure or obvious cause such as neuropathic pain and fibromyalgia (Cao et al., 2013; Cao et al., 2010; Elder et al., 2012; Irvine, 2014; Ritenbaugh et al., 2012).

TCM emphasises individual differences, which entails that two people with the same symptoms may receive different treatments. Moreover, what underlies the approach of healing is the idea that the heart/mind is embedded in the body and the body is

viewed as a "microcosm of the cosmos" (Coakley & Shelemay, 2007). As the world-renowned researcher in cultural psychiatry Laurence J. Kirmayer points out, in Western medicine there is the firm belief in the idea that "what is 'real' must show up on our test" which leads to some people finding it "violent" (Coakley & Shelemay, 2007, p. 243).

The differences between TCM and Western medicine take us beyond definitions or treatment methods to a deeper level of how the two form their understanding as the way they are. Western medicine takes an ontological approach in which cells and tissues are building blocks with functional properties. No doubt it fostered the development of anatomy, diagnosis and medical treatments but it may result in treatments targeting the *part* with less focus on the *interaction* between the particles and the whole (Lai, 2018). 醫學, the Chinese word for medicine, literally means the study of healing. To heal a person is not the same as to fix a machine; the former requires taking all aspects of being human into account, and because "no two people are alike, even twins" (Ontario, 2019), no two treatments should be identical. Western medicine is gradually moving towards personalised medicine (Lancet, 2018; Vogenberg et al., 2010), be it with analgesics or cancer drugs, which is a positive change.

In Chinese, two characters 疼(téng) and 痛(tòng) can both be translated as "pain" but they are different and hold other meanings as well. Seeing it from the glyph, they both contain the radicle for "ill" (疒) and a bottom part - 疼 has 冬(winter) which may indicate cold induces contraction leading to pain; while 痛 has 甬(path) which implies if the pathways or energy channels are blocked, pain would be felt, based on "不通則痛" from 黃帝內經 Huang Di Nei Jing. According to the Chinese dictionary, 疼 also has several meanings: painful feeling caused by noxious stimuli, to cherish, be fond of. For example, 疼愛 (téng ài) means "to love dearly". 痛 holds meanings of painful feeling caused by sickness and injury, sorrow, thoroughly and extremely. For example, 痛徹心腑(tòng chè xīn fǔ) literally means pain or sorrow pervades the heart and inner organs; 痛快(tòng kuài) means filled with joy. On the one hand these words seem to

indicate that pain does not necessarily fall in the negative category, and on the other, that emotion is an embodied experience.

Huang Di Nei Jing expounds the relations between emotions and the internal organs. For example, it states 腎主恐 (kidneys are associated with fear) – being frightened will disturb the kidney and if the kidney qi is deficient, one feels fear easily or appears to be timid; 心與小腸相表裏 which means literally the heart/mind takes care of the exterior and the intestines the interior. Put metaphorically, they talk to each other and work together. Recent research has shown that gut microbiota influence the central nervous system and are associated with neuropsychiatric disorders. Moreover, mental stress and disorders can harm the gut microbiota. A link between gut microbiota, neurodevelopment, and depression has been suggested (Lima-Ojeda et al., 2017). It seems modern science is giving support to the ancient texts' holistic view. Huang Di Nei Jing also states, "諸痛癢瘡,皆屬於心" (lit: all pains, itches and sores are ascribed to the heart/mind). It acknowledged the role of the mind in pain, two millennia ago.

I.3 Mind or body? Or mind-body?

All pain is mental.

Howard Fields, Professor Emeritus in Neurology and Physiology (Coakley & Shelemay, 2007, p. 43)

What Fields means is that "the experience of pain is the result of activating a neural representation in the brain and is projected in space to the site of tissue injury" (Coakley & Shelemay, 2007, p. 43). In one study (Bayer et al., 1991), participants were connected to sham stimulators and told that a headache would occur when they received an electrical current. Although no actual stimulation happened, half of them reported pain and their pain ratings increased as they saw and heard the stimulator go up. This is a good example of "pain is generated in the brain" (Coakley

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⁸ In the case of acute pain

& Shelemay, 2007, p. 43) and shows that pain can happen without tissue damage or peripheral nerve stimulation. It demonstrated that all the sensory input, environmental and psychological factors strongly influence the experience of pain. Phantom limb, the feeling of a limb still being attached despite amputation, is a good example of projection. Understanding the concept of projection, so-called mental pain is fundamentally no different to so-called physical pain and the placebo effect is not that mysterious (Coakley & Shelemay, 2007, p. 43).

Fields clearly holds a "top-down" view of pain in contrast with the "bottom-up" view held by a few others. However, these two do not seem to be completely opposite but part of the same wheel, complementary. Jon Kabat-Zinn, professor of medicine and the founder of *Mindfulness-Based Stress Reduction (MBSR)*, puts it thus: the brain and the body are "not actually different 'things' but part of one seamless whole that we experience (words fail here once again) as the body when we are actually in touch with it" (Kabat-Zinn, 2018, p. 87)

Thirty-six years back, Marcia Angell, the editor-in-chief of *New England Journal of Medicine* wrote that "our belief in disease as a direct reflection of mental state is largely folklore" (Angell, 1985). She was soon proven wrong. Studies (Gatchel et al., 2007) have shown the correlations between pain disorder and emotional suffering such as depression, anxiety and tense social relationships, all of which conduce or worsen the chronic pain condition and vice versa (Good, 1992). Today, "psychosomatic" has become a fashionable word. The rise of psychosomatic medicine was based on the known impacts of psychological factors on physiological functions. In Chinese medicine, \(\tilde{\to}\) (depending on the context, translated as heart/mind as it encompasses cognitive and affective aspect of consciousness, as well as the heart organ), is regarded as the king of the whole mind-body phenomenon which is metaphorized as the kingdom. It goes without saying that the king and the kingdom are interrelated in many ways.

The complex interactions between pain and emotion have been well researched (Vogt, 2005). People respond with a higher subjective pain rating when they are in a sad emotional state (Yoshino et al., 2010). It may be explained with the idea that the limbic

system (involved in behavioural and emotional responses) mediates the intensity of somatic pain. Somatic pain is associated with emotional states such as depression and anxiety (Coakley & Shelemay, 2007, p. 46). An interesting result from a study of stool showed that the stool consistency was significantly associated with anxiety level and pain perception, and that pain perception was associated with anxiety states (Yukiko et al., 2017). A study following 500,000 patients in Sweden shows that it is more likely for pain patients to develop mental illnesses than patients without pain, and it works the other way around – there is higher risk of developing pain after mental illness (Bondesson et al., 2018). To decide which comes first is like the chicken or egg problem, but one thing that is for sure is that mind and body are extremely tightly interrelated. Pain originates "between minds and bodies" (Sullivan, 2001).

Back in the 1990s, Morris (1991) questioned whether pain should be divided into two parts, physical and mental, into which many believe pain can be separated even today. These believers should, however, look at the evidence which suggests that social pain shares the same neurobiological substrates as physical pain (Eisenberger, 2012) and that a positive response from family has a strong effect on chronic pain conditions and duration (Good, 1992). The separation of "mental" and "physical" is often attributed to Descartes, which supposedly causes the lack of integration of somatic and psychological factors in Western biomedicine. It is widely thought that Descartes' dualism "shifted the centre of pain from the heart to the brain but negated the psychological contribution to its pathogenesis" (Khan et al., 2015). However, Duncan (2000) offers a different view, namely that Descartes did try to investigate the psyche and soma as one and that the Cartesian view of pain shares a similarity with the modern biopsychological model. Perhaps Descartes has been critiqued more than he deserved. Although it is prevalently believed that Descartes brought in the idea of the gap between body and mind, he did not reach a conclusion on the mind-body problem. He remarked, "it does not seem to me that the human mind is capable of forming a very distinct conception of both the distinction between the soul and the body and their union; for to do this it is necessary to conceive them as a single thing and at the same time to conceive them as two things; and this is absurd" (Lokhorst, 2018). It may be too radical to regard dualism as being rooted in Descartes' idea (Arnaudo, 2017).

In the West, views on how the "mind-body" problem came into being arose from Plato's view of body being the prison of the soul, Aristotle's soul being the form of the body and Descartes' body as a machine which is different to the former two – they believe the soul animates the body while Descartes rejects this (Broadie, 2001). The Christian belief in the immortal soul and the Western philosophy of the mind (which is different to the Christian soul but derived from *nous*⁹ and *pneuma*) play a role too. As philosophers began to seriously investigate the mind, scientists did not pay much attention to it when studying the body. Maybe because of the elusive nature of the mind, those who were not comfortable with it adopted a dualism which is ineffectual and unreasonable. And that results in the body widely being perceived as purely physical and the physical totally different from the nonphysical, which leads to ineffective treatments for pain and suffering.

In the East, at least traditionally, it is prevalently believed that mind and body cannot be separated. In most Asian traditions, there is no distinct dualism between mind and body. For example, in India, there has never been any classification of the purely physical, and the body is "the foundation for all human endeavours" (Kasulis et al., 1993, p. 70). On a similar note, in a 241 BC Chinese classic text *Master Lü's Spring and Autumn Annals,* it states, "[to handle] the root of everything, first, one needs to cultivate the body (凡事之本 必先治身)" ¹⁰. Not only does it not contradict the primacy of 心 (Xin: heart/mind) mentioned in 管子 Guanzi, an ancient Chinese philosophical text, but also highlights the intimate connection of body and mind. In *Guanzi*,

xin is positioned at the principal part; and the nine apertures respectively function as the sensory organs. With the xin corresponding to the 道 Dao [or Tao], all the nine apertures follow the law. Once indulged in excessive desire, the eyes will see no colour, and the ear will hear no voices.

It depicts a picture of holism of mind and body, and the detrimental effect of indulgence in sensory desire. It suggests "cleaning the place and opening up the doors"

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⁹ Nous, Greek, translated as "mind" or "intellect". "The faculty of intellectual apprehension and of intuitive thought". (Britannica.com)

¹⁰ In the chapter Xianji(先己) https://ctext.org/lv-shi-chun-qiu/xian-ji/zh

to let go of desires and keep the mind in an empty state for one's benefit to see things clearly (Zhang, 2007). The Chinese word for "sage" is 聖(shèng) which is composed of 耳 (ear), \square (mouth) and Ξ (king). Ξ can also be decoded into three horizontal lines which represent Ξ^{11} (heaven/nature), \bot (human), 地 (earth) and a vertical line representing a king connecting these three. When one can be the king or master of the senses, rather than being driven by them, and one with nature, one is a sage. *Xin Shu* also mentions the role of the physical body but does not try to separate it from the mind, for "those who suffer from lack of vital energy [qi] will fail to govern their minds. Proper physical bodies help to improve intelligence" (Zhang, 2007). This is in contrast with St Augustine's view on humans, namely that the mind can have an impact on the body but not the other way around (Sullivan, 2001). There are studies confirming *Guanzi*'s view, such as one showing that tai chi, a mind body exercise, has a positive effect on cognitive function in elderly people (Lam et al., 2011).

 \overrightarrow{HF} Zhuangzi, the Taoist classic, stresses the importance of the body as the basis of one's cultivation of inner life (Chen & Hertzer, 2016) and offers interesting and profound views on the body. In the 大宗師 The Vast Ancestral Teacher chapter, Yen Hui tells Confucius¹² that he had made improvements in his practice, "I can sit down and forget everything! [...] I [stop sensing] my limbs and body, drive out perception and intellect, cast off form, do away with understanding, and make myself identical with the Great Thoroughfare [emptiness]." And Confucius responded, "with your permission, I'd like to become your follower" (Zhuangzi, 1968, p. 91). It depicts a picture of letting go of the body and other forms while using the body to sit and achieve this state. 坐忘 sit and forget is one of the two most important states (the other one being 心齋 heart fasting) in Zhuangzi. When one is in a harmonious state or in the \not Dao, they can forget. One may make a comment on a pair of shoes which

¹¹ Tiān (天), "in indigenous Chinese religion, the supreme power reigning over lesser gods and human beings. The term tian may refer to a deity, to impersonal nature, or to both". It is often translated into Heaven. https://www.britannica.com/topic/tian

¹² Yen Hui was Confucius' disciple, but they were both merely characters in *Zhuangzi*.

are in a harmonious relation with the feet: "they are extremely comfortable. I even forget I have shoes on!"

Kirkland (2004) concludes:

Taoists typically believed that personal transformation must be a holistic transformation, a transformation of all their being—including what other traditions have often distinguished as mind, body, and spirit—in accord with the most subtle and sublime processes at work in the world in which we live.

Buddhist teachings are along these lines. Siddhartha Gautama (the Buddha) repeatedly said that awakening is realised within the living body. Buddhist scriptures offer plenty of insights on this matter. As described in *Anapanasati Sutta*, a monk would train himself by breathing in and out calming bodily fabrication, sensitive to rapture and mental fabrication, calming mental fabrication, steadying the mind and releasing the mind. When one encounters strong emotions, there is an activation in the body and a change in breathing can be sensed. For example, when one gets angry, the body becomes tense and contracts, breathing may be quicker and harder, and heavy breathing feeds into being angry too. It is not possible for the body to remain relaxed when angry and bodily activations *also* reinforce and sustain the mental pattern or habits.

Mental habits, in neuroscientist Anil Seth's words (2019), are the perceptual, emotional and cognitive processes that shape and bias how we see ourselves, others and the world. I would argue that "bodily" should be one of those adjectives modifying processes too. The formation of habits is called *Sankhāra* in Buddhist psychology and operates from perceptions, covering mental and bodily actions. So, when stimulation comes in touch with body (*Rūpa*) (or there is sense contact with a form), if one is conscious (*Viññāna*), instantaneously feeling (*Vedanā*) and perception (Saññā) arise, and then there is the volition to act. Perception (*Saññā*) establishes gradually and firmly through each cycle of conditioning. These are the *five aggregates* (*khandha*) that constitute lived experience and define humans, and are the Buddha's analysis of suffering, as grasping any of these changing phenomenon causes suffering. They help us see the phenomena of the sensory world. Because of the strong force of conditioning, in the case of pain, often one operates from the habitualised perception — "this is bad. I hate it. I suffer so much from it. I have to get rid of it." These

perceptions get reinforced every time one reacts or acts in such ways, forming a pattern and relation with pain. Without knowing of this process, it can only remain an unconscious and automatic response. But one can get to know it. Since none of these *khandhas* is permanent, and how one perceives anything is through conditioning, there is hope for transformation.

II. Perception

All our perceptions are kind of storytelling by our brains. By shaping this process, storytelling itself has the power to change our perceptions. So, we learn to experience the world in new ways.

Anil Seth

From a neuroscientist's view, perception is a "controlled hallucination" (Seth, 2016). In this theory, the mind is constantly using guess work on the signals coming from the body and the environment. Basically, it is saying that the perceptual world is a construct where sensory input, past experience (memory) and expectation meet. Put differently, borrowing Gunapraba's words, "the consciousness (manas) has the storehouse perception for its phenomenon" (Siderits et al., 2011, p. 177). The theory can be used to explain a lot of chronic conditions such as chronic pain, medically explained or unexplained cases (Van den Bergh et al., 2017). With the storehouse perception as a foundation, being able to think and being conscious construct a self (as a subject), or the "I" as in Wittgenstein's approach (Wittgenstein, 1969). When we agree on the hallucination, it becomes our reality, which in fact is perceptual reality. The recent viral examples of the "blue or golden dress" 14 and "Yanny and Laurel debate"15 tell us that what we cling to as reality can be perceived totally differently by others. For someone who lives in a remote village and has never heard of Great Britain, Great Britain does not exist; for someone who has been in a coma since early 2020, their reality has no pandemic.

A conversation (Anscombe, 1967) between Wittgenstein and his friend, Anscombe, goes:

"Why do people say that it was natural to think that the sun went round the earth rather than that the earth turned on its axis?"

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¹³ This term was borrowed as mentioned in a podcast.

¹⁴ A debate about the colour of a dress. https://www.bbc.co.uk/news/uk-scotland-highlands-islands-

¹⁵ A debate about what people can hear. https://www.bbc.co.uk/news/blogs-trending-44136799

Anscombe, "I suppose, because it looked as if the sun went round the earth."

"Well, what would it have looked like if it had looked as if the earth turned on its axis?"

Anscombe might have been speechless, but Wittgenstein was basically pointing out the truth with a question.

According to Lacan, a psychoanalyst, reality is "impossibility". It is constituted by the integration of the Imaginary and the Symbolic. But he also speaks of The Real which is "whatever is beyond, behind, or beneath phenomenal appearances accessible to the direct experiences of first-person awareness" (Johnston, 2018). When physicist David Bohm lectured at UC Berkeley, he said,

Reality is what we take to be true. What we take to be true is what we believe. What we believe is based upon our perceptions. What we perceive depends upon what we look for. What we look for depends on what we think. What we think depends on what we perceive. What we perceive determines what we believe. What we believe determines what we take to be true. What we take to be true is our reality (as quoted in Ricard & Trinh, 2001, p. 121).

This sinuous but beautifully smooth discourse needs no comment – it says it all. We enact reality. But it does not mean shared meaning is impossible. For example, probably every native American views the sun as their god, but to, say a white European, the sun is a star radiating massive energy in the middle of the solar system. Between these two realities shared meaning may be established through open communication and mutual understanding. It is an act of acceptance and love and it certainly applies to pain as such an ineffable and private experience.

Perception is how it seems to be, a constructed assembly of a series of signs, impressions and meanings. It can be put simply with two phrases: "it strikes me as ____" and "it is like ____" (Sucitto, 2018) and everyone can have a different filler for the blanks even if they are talking about something conventionally believed to be the same or in the same category. How the category is formed is also perception which groups experiences into categories that people can relate to. An example given by Ajahn Sucitto in a talk vividly describes this – it is easier for people to talk about the animals that "moo" with the term "cow". But there are different types of cows, such as Jersey, Highland and Angus and in fact each cow has its unique qualities and

characteristics. Yet, they are all called "cow". Forming a perception depends on multiple factors including the senses, cognitive process, environmental conditions, etc. Even if there is an animal that moos right in front of you, it is only if you are conscious, your senses and brain are functioning, environmental conditions such as visibility are right, and you have learned the word "cow" that you may point and utter the word "cow" and have the experience of seeing a cow.

Perception works roughly like this, based on Buddhist psychology: dependent on the senses, sense-consciousness arises. When there is this contact, there is feeling, and:

what one feels, one perceives (labels in the mind). What one perceives, one thinks about. What one thinks about, one objectifies ("papañcizes"). ¹⁶ The perceptions and categories of objectification assail him/her with regard to past, present, & future forms cognizable via the senses (Thanissaro, 2013a).

During the process described above, there is a notion of the "I" taking and storing sense data, feeling, recognising, interpreting and forming a view. When there is a sense of self getting involved in experiences, some feelings seem good for the self (the person wants to experience more of those feelings), while some are bad for the self (the person wants to push these away); and then there arises desire. The way to end this process is a shift in perception (Thanissaro, 2013a).

Perception gets more and more complex as one grows from childhood, being constructed from many factors including the bodily and mind states, memories, social and physical environment, and cultural conditioning. Perception is not taking a stand, but the background where acts stand against (Merleau-Ponty & Landes, 2014, p. lxxiv). Take an example from real life: some British and Chinese people are talking about dessert after a meal, assuming they all know what the word "dessert" means — a sweet dish. One of the Chinese brings mung bean sweet soup (Figure 4) to the table and the British receive the visual sense data and react with surprise because what they tend to associate with the word "dessert" may look like what Figure 5 shows; Figure 4 looks like what they may associate with "Indian take-away", or "something that should not be on the table".

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¹⁶ The Pali word can be understood as distortion or complication of the way things are.

These British people would perceive and react to the mung bean sweet soup differently depending on the their past experience, how they feel on a bodily and emotional level at that moment, and the environment they are in. Importantly, these are not separate in any sense but well connected and work together in any experience. Someone who previously became ill eating greenish curry may be more likely to find the mung bean sweet soup unacceptable, because the moment that person sees it, the past unpleasant experience of being ill is recalled, followed by unpleasant sensations on a bodily level and thoughts/emotions on mental level. People in the room and the room itself may affect this as well. Because of different perceptions, behaviours would be different. Some may decline to try the mung bean sweet soup; some may be curious to dip their toes (or fingers) in and have a new experience; some may like or dislike it and thus form new perceptions.

In this process, if one chooses to reshape the storytelling, the perception can be changed, as well as the experience.



Our experience from moment to moment is influenced by perception which is predictions based on what we have learned. It is useful in human survival and evolution, but it sometimes gets in the way of present experience as in chronic pain conditions. When each experience is open to possibilities, change may happen.

Every consciousness is, to some extent, perceptual consciousness.

(Merleau-Ponty, 1962, p. 416)

Merleau-Ponty claims in his Phenomenology of Perception, "an isolated datum of perception is inconceivable" (1962, p. 4), followed by an example of the experience of seeing colour, which is an interplay of light, shadow and configuration of space, among other elements at that moment. The sensation is based on these elements, but we set the limit for the sensation with our prejudice because we hold the perception of colour things. Colours are sense-data, not sensations. He alludes to the point that we are trapped making perceptions out of what is perceived and the perceived can only be made possible through perception. This resonates with the predictive coding model (Seth et al., 2011) and sankhāra in Buddhist psychology: the process of habit formation, the volitional activities responsible for generating tendencies. When one tries to grasp sensation in bodily phenomena, one would come to a formation furnished with meanings and more perceptions, and this keeps one away from pure sensation. Specifically, as Merleau-Ponty points out, the theory of sensation complies more with adults than children. Children see more "perfectly" as they are not aware of themselves and others as "private subjectives" nor of points of view (Merleau-Ponty, 1962, p. 5). Lao Tzu would probably nod his head reading that, "yes, be 'baby-like'".

Through the process of forming mental habits mentioned previously, perceptions, biases and a sense of self become established as we grow up. So, we experience the phenomenal world with conditions. Marshall (2008) concludes, in the experience of the present, an immediate past is given. An example for this could be the one given in a talk by Moseley (2012), a clinical neuroscientist: being bitten on the foot by a poisonous snake in the past makes one scream in agony in the situation when the foot is scratched by a twig. The pains in those situations are totally different. He also claims that 1) pain is not necessarily a signal of damage to the body and 2) pain is 100% a construct of the brain.

The response to pain depends on the context and the context depends on the person's past, present and future. That is, personal past experience, culture, social relationships,

current situation and emotional state, expectation, and so on. Many have seen this picture: when a child falls and no one is around, the child stands up and continues running; but if an adult immediately runs towards the child looking worried, the child starts crying. In the latter case, the child learns from the adult's response to pain and when this happens a certain number of times, it becomes the habit of the child and no matter whether there are people around or not, when the child falls, it cries. It is only once children have grown older that they learn from their culture not to cry when they fall. Our nervous systems are shaped by our own experiences, which are heavily influenced by sociocultural factors. In turn, these influence the perception and behaviour of pain. The influence, as Fields puts it, is a "two-way street" where "bodily and environmental factors create central representations [and they] strongly influence the interpretation of ongoing experience" (Coakley & Shelemay, 2007, p. 42). The behaviour, impacting the person's life and people around them, is pivotal, rather than the symptom itself (O'Sullivan, 2016, p. 18).

It is suggested that the perceptual system is constantly "generating, testing and refining hypotheses about the causes of sensory inputs", and this process of unconscious and automatic predicting work, vulnerable to prediction error, applies to Medical Unexplained Symptoms (MUS) which can be considered as somatovisceral illusions as well as explained or partially explained symptoms (Van den Bergh et al., 2017). This can also apply to mental conditions as Andy Clark (2019) suggested: if a depressed person stops modelling themselves as a depressed person, even just briefly, it can have long-term benefits. That is called putting the brake on the conditioned process (*Sankhāra*) (Bodhi, 2017). Since perception is a construct and is what we respond and react to, it can be transformed, and thus, so can our experience.

The body is the locale of the felt experience. Perception is rooted in the bodily sensations and the interaction between the body and the world. The forming of perception is impossible without the body being perceived and perceiving, as Merleau-Ponty demonstrates in *Phenomenology of Perception* (2014) that the body is the medium and core for understanding human existence. He addresses the "primacy of perception" and that the reality should be perceived within perception as transcending perception (Marshall, 2008).

The theory of the body is already a theory of perception.

(Merleau-Ponty & Landes, 2014, p. 209)

If we are to talk about perception, we must talk about the body. Lakoff and Johnson (1999, p. 3) placed this finding, "the mind is inherently embodied", at the very beginning of their book as one of the three major findings of cognitive science. It is crucial for understanding lived experience and transformation. When we see our loved ones, we want to embrace them in our arms; when we are angry, we feel heat in the body and perhaps an impulse to grab and throw something; when we hear sad news or a touching story, we feel a heavy heart and 鼻酸 (lit: nose sour), a tingling sensation at the back of the nose and around the eyes, maybe followed by tears. In everyday language, we use "痛徹心肺 (pain and sorrow pervade heart and lung)" or "heartbroken" to describe distress; we use "high" and "low" for moods; we get "butterflies in the stomach" when we are nervous and "牽腸挂肚 (deep concern involving the intestines and belly)" when we very much miss somebody. These are on a more obvious or conscious level – somatisation is a basic and normal way in which the body responds to emotions – but it is sometimes forgotten that humans are embodied beings.

About half of the participants in this study reported correlations between mental and bodily states. For example, P10 had strong sensations in the solar plexus when any pronounced emotion was experienced; P16 felt a tightness in the chest when she felt sad or helpless; P26 mentioned a lump of *qi* clogged up in her chest and throat when she experienced pain from family disharmony; many reported that mental stress made their bodily pain worse, and interestingly P34's knee pain was "gone completely for a day" when he was stressed and anxious sorting out a domestic issue. They are not just telling the stories of somatisation but also showing a strong interrelation between mind and body.

Somatic pain can also cause mental pain: P21 said her knee pain was causing much emotional pain; P24 said an injured ankle made her grumpy and affected how she delt

with others; the feeling of adrenaline in the stomach makes P38 feel anxious. He said, "my dad has it as well. It just sits in my stomach and it causes problems in my mind. [You think that causes anxiety?] I think it works both ways but there are certain times there is no reason for me to be anxious or stressed, I still feel it."

There is also a subtler or below-awareness level in which some non-conscious biological and cognitive processes bear relevance to the arising of a memory, according to neuroscientist C. Saron (personal communication, July 17, 2019). When a traveller walks out of Whitechapel Tube station in London and the spice-scented air activates her smelling sense, her memory of walking on a street in India may arise. If the memory is a pleasant one, and she is physically and mentally in good condition, regardless of her level of awareness, she would enjoy walking at Whitechapel market. The opposite of any of these aspects will change that experience.

During one interview, P33 stated that while he was revisiting and talking about his painful experiences, he could feel the same pain there and then, in his testicles and the back of his eyes. The memory was stored with the context, and during recollection the bodily and mental states converged. It could be explained with the theory of "grounded cognition" (Barsalou, 2008) which proposes that the environment, situation and bodily states underlie cognition, and this view is supported by behavioural and neural evidence from research on various aspects including perception, memory, language and social cognition. The body is a base, without which experience cannot happen.

Our bodies themselves, are they simply *ours*, or are they *us*?

William James (1901 Chapter X)

Self starts with the body, social psychologist Baumeister (1999, p. 2) claims. Theories and practices such as psychoanalysis and psychotherapy with body orientated approaches also suggest that the bodily sensory systems play an important role in the sense of self (Schmalzl et al., 2014). Obviously, the body plays an important role in our daily lives, communications and in many traditions. It dominates such a central part of existence that losing control of the body threatens the existence of "I", even though

the body is just one of the changing phenomena constituting the sense of self, itself a fundamentally changing phenomenon too.

One feels the sensations of the body and very naturally the sense of ownership arises. The sense of owning the body is so ingrained that we seldom give it a second thought, but evidence from cognitive neuroscience asks us not to take it for granted. Brain damage can lead to a disrupted sense of ownership, such as somatoparaphrenia, a neuropsychological condition which is the delusion that one's own limb belongs to someone else (Romano et al., 2014); people with pathological conditions can actually take someone else's body part as their own and have a subjective feeling of pain (Pia et al., 2013).

One also feels the emotions and thoughts which highly affect the behaviour. The "rubber hand illusion" experiments show that body ownership can be modulated by visual and tactile feedback and people can be deluded by the sense of body ownership. They feel frightened and have bodily action when the rubber hand is attacked. Thoughts and feelings no doubt also contribute to that "I" experience but look at people with schizophrenia - they sometimes believe that the thoughts in their mind do not belong to them. This is just how the exteroceptive and interoceptive information work together in the process of construction of body awareness (Tsakiris, 2017). I feel a painful hand and frightened – everything seems so real, apart from that the hand is made of rubber.

There are strong and often unquestioned assumptions that world making is through taking up the properties such as length and colour with representation, and there is an "I" that does that - a dominant but questionable view in cognitive science that cognition is a mental "representation of a world that is independent of our perceptual and cognitive capacities" (Varela et al., 2017, p. lxvi). Cognitive scientist Francisco J. Varela, psychologist Eleanor Rosch and philosopher Evan Thompson challenge this view, arguing that cognition is embodied action (Varela et al., 2017).

¹⁷ A trick with a rubber hand to explore how the mind create body ownership using sensory inputs.

There is a different way of world making. A term "enactive" is made for this approach which is to stress that "cognition is not the representation of a pregiven world by a pregiven mind but rather the enactment of a world and a mind" based on a variety of one's past actions (Varela et al., 2017, p. 9). Enactment, said with Jung's words, means that "human consciousness created objective existence and meaning, and man found his indispensable place in the great process of being" (Jung & Jaffé, 1967, p. 311). Since Heidegger, continental philosophers have proposed that knowledge is dependent on the interpretation of a world inseparable from our embodiment (Varela et al., 2017), but Merleau-Ponty explicitly discusses the role of the body which Heidegger omits¹⁸. This interpretation, understood as "the enactment or bringing forth of meaning from a background of understanding", is based on "our bodies, our language, and our social history" (Varela et al., 2017, pp. 223-224). The embodied experience patterns are not limited to an individual but also involve the community or culture that helps interpret them. Simply put, there is no so-called separate outside world, and cognition has no grounds beyond its own history of embodiment. It is through looking into experience that one can associate the properties of the brain with cognition, rather than just looking into the brain (Varela et al., 2017, p. 149).

Various schools of thought have shown that cognitive experience is not only about neural activities in the brain; it is also an interplay of mind, body and environment (Schmalzl et al., 2014). Moseley and colleagues (2008) measured the skin temperature of the hidden (real) limb in rubber hand illusion experiments and found that when the participants thought they owned the rubber hand, the temperature of their hidden real limb dropped. It shows the interaction of the mind, body and environment, and indicates that when you are not "in your body", there are potential problems or even danger, as well as hints that what is thought to be "me" or "mine" can be illusory.

Embodiment is "a real sense of interconnectedness" (Coakley & Shelemay, 2007, p. 233). Merleau-Ponty beautifully concludes, "quality, light, colour, depth, which are

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¹⁸ There is criticism because of that but Aho (2009) defends Heidegger by arguing that Dasein should be understood "in terms of a shared horizon of being that is already there."

there before us, are there only because they awaken an echo in our body and because the body welcomes them" (1964, p. 164). His work underlies the theory of embodied cognition. He points out that the knowledge of the world happens primarily in the body and that the world is what the body is aware of. It is embodiment that brings the "world" to perceptual experience. In his phenomenology, the prejudiced thought that the world is predefined is problematic. He tries to break the duality of subject and object rejecting mind-body dualism, and states that "it [the body] is not an assemblage of particles where each one would remain in itself; or an intertwining of processes defined once and for all. [...] The body, then, is not an object. [...] the consciousness that I have for it is not a thought" (Merleau-Ponty & Landes, 2014, pp. 203, 204).

I will have your ovaries in a jar when you come out.

The doctor said to P6.

The body is often objectified, which sometimes is translated into medical practice – removal or replacement of body parts as a treatment as if the body is a machine. It has been understood using metaphors of a machine, grounded in the 17th century mechanistic science, and instrument which "requires a user" as a description of control (Kasulis et al., 1993, p. 7). But objectifying the body overlooks the interconnectedness of mind, body and environment and the changing nature of these, and gives rise to a sense of ownership, manipulation and the idea that an "I" is using the body. There is a sense that someone can have control, not only of one's own body but also of someone else's. The experience from P6's (British female, 66) hysterectomy sheds some light on the issue of objectifying the body and also touches on doctor-patient relationships in terms of power. She found it unpleasant from the beginning when she was told "it's all in your head" when no diagnosis could be given except that she was "hystericalish". She said,

apart from not being able to function...you know that's quite big; it's distressing. There is no rationale. I couldn't talk to the doctors so they could agree with me. When they told me it's all in my head, I got very angry.

Apart from being told that "you are a stupid/silly girl" - even though she was in her 40s - as she only agreed to the removal of the uterus but not the ovaries, she was

displeased that the surgeon even tried to threaten her (joking or not) when she was being wheeled into the theatre: "I will have your ovaries in a jar when you come out."

And she responded, "in which case I will sue your arse."

That was 20 years ago and today her ovaries are still healthy, and she is happy with her decision. But even today, in a time that the biopsychosocial model has shown that symptoms are not purely biological, the medical practice still regards symptoms without bodily dysfunction as "in the mind" (Van den Bergh et al., 2017).

He is not interested in me as a patient and only interested in the mechanical side of

P21 said about the doctor.

She (Irish/French/Welsh female, 59) expressed her upset from the interaction with her consultant, largely due to poor doctor-patient communication which may be engendered by objectifying the body.

My knee is causing me different pains, a lot of emotional pain. He is not responding to a person [...] So we don't properly explore this. I agreed to have the knee replacement, but I am still not fully aware of other issues and that makes me very upset. I need to know because I need to understand it and secondly I want to feel I am directing my own recovery. It makes me cry. Every time I go to see him, I want to cry.

Objectifying the body may lead to a lack of holistic view which is essential in interaction with a person. Patients may feel doctors are unsympathetic if there is an impression that they are dealing with machines. There also seems to be a hierarchy in these two experiences which demonstrate what Kleinman calls "the failure of medicine as an art" – the doctors behaving from a position of control without "acknowledging and affirming the patient as a suffering human being" (Kleinman, 2008) rather than being compassionate listeners and advisors and offering a comforting presence. If the understanding of the body were different, if science and art had not drifted far from each other, their response might be different.

On the same note, objectifying the body is objectifying nature, which results in what we can see as exploitation and desecration of nature. The perception that nature is something humans can use comes from a standpoint of dichotomy that fails to

recognise that human beings are one with nature. The perception of dichotomy is the cause of devastation and problems within and among humans.

The body is the "subject of perception" which cannot be objectified or taken as a puppet taking orders from the mind. Merleau-Ponty perceives the body as a means of interaction and communication with the world and holistically states that the body is not just "assemblage or juxtaposition of its parts" (Merleau-Ponty, 1964, p. 163), even though he critiques that *Phenomenology of Perception (1962)* is still confined in a philosophy of mind model and still operating from a subject-object dichotomy (Reynolds, 2019).

Perhaps looking at the Chinese word for body would spark some ideas for him. In modern Chinese, the word for body is "身體(shēn tǐ)" which is constituted of 身(shēn), meaning the body, that which one can cultivate and is a base for cultivation (equivalent to the Buddhist term $R\bar{u}pa$); and 體(tǐ), which has different meanings such as form, field (in the sense of energy) and embodiment. Linguist Yun-Ying Chung (2010) suggests that 體(tǐ) is "wider" than 身(shēn), like a limitless "soft container" encompassing mind and matter according to $杨 (Ching/Book\ of\ Changes)$, the oldest Chinese classic. It can be understood as the form or the body or even a part of the body, but also a boundless phenomenon that can be expanded infinitely and be oneness with the universe without dichotomy. The Taoist classic *The Secret of the Golden Flower* 19 expounds on the body not only being the physical body. There is a lower self (魄 Po) associating with discriminating awareness and a higher self (魂 Hun, which can be understood as meta-awareness) where the spirit sits. Through cultivation, one transforms or dissolve the lower self and realise the higher self or pure awareness.

Body as microcosm of the universe is not only understood in ancient traditions. Modern science shows that the particles in the cells in our bodies have existed for a

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¹⁹ See http://www.thesecretofthegoldenflower.com/ch2.html

very long time, since the Big Bang. Ali Sundermier, science communication specialist at SLAC, writes, "the hydrogen atoms in you were produced in the Big Bang, and the carbon, nitrogen and oxygen atoms were made in burning stars. The very heavy elements in you were made in exploding stars" (2015). Given that cosmic rays and dark matter are passing through each of us and leaving a trace moment by moment, we do not need to become "one" with the universe – we are already "one".

So, humans are like stars, but how can one own or control a star? The body is volatile and unruly — a wish to make the heart beat faster or stop beating for a while will not come true. The body is bound to get old and die no matter how many antioxidant supplements or plastic surgeries one has. One may say, "but I can control my fingers and toes and other parts!" A person who is experiencing paralysis may disagree. When conditions change, the ability to control the body parts changes too. So how can we be sure of owning the body when even basic control is uncertain? Moreover, the body is energy in constant change even though it seems very much solid and static — the body cells regenerate every seven to 15 years, on a macroscopic scale; on a microscopic scale, the fundamental particles are being produced and interacting in every moment. Scientists believe the mass of the body is from "the kinetic energy of the quarks and the binding energy of the gluons" (Sundermier, 2015). How do we own energy? Put it in a canister? If the body and all other things are made of almost entirely empty space (but full of wave functions, quantum fields and so on) (Sundermier, 2016), how do we hold onto and own emptiness?

The chapter 大宗師 The Vast Ancestral Teacher in Zhuangzi, a Taoist classic, explicates that the genuinely human person (真人 zhen ren: enlightened person) views life coming from emptiness and death retuning to emptiness. "They borrow forms of different creatures and house them in the same body. They forget liver and gall[bladder], cast aside ears and eyes, turning and revolving, ending and beginning again, unaware of where they start or finish" (Zhuangzi, 1968, p. 50). The borrowing can be viewed as the parts in humans that were made in exploding stars. There is nothing to celebrate or lament. The genuinely human person is happy to receive the body as a gift from nature and when they lose the body, it is just returning it to where it comes from. They do not own the body and do not use intellect to fight the laws of

nature (Zhuangzi, 1968). There are some things humans can do nothing about, which gives a sense of surrender and modesty that is rooted in how a lot of Chinese people view life.

As Tu Weiming states, the body is "an attainment" (quoted in Coakley & Shelemay,

2007, p. 234), the way of thinking that the body is a gift from parents and Heaven (天 tian) or nature may explain why there is usually an acceptance of pain among Chinese participants in this study. Though many of them do not practice any form of contemplative practices which are thought to help people be more acceptive, such thinking influences their everyday life and perception. For example, P41 (Chinese male, 62) mentioned *Heaven* \mathcal{F} a few times while talking about his pain experience, such as "pain means something given by Heaven" which he does not own but endures. He also suggested that pain does not have a quality such as positive or negative or neutral as it is just something given by Heaven \mp and he accepts it choicelessly. However, the idea of pain being sent from heaven is not exclusive to Chinese; it was prevalent before the 18th century in Christian cultures in Western Europe (Sussex, 2015). But things change, and Heaven 天 is not the same as the Christian heaven. Like P41, the word "choiceless" was also used by P2 (Chinese female, 31) to describe a pain experience related to her former husband, indicating acceptance. She suggested that she did not own the pain which she believed was the result of "karma" (meaning action; cause and effect) which is a well-known term from Indian philosophy, but its associations can be found in Taoism too. The karmic seeds are collected with the body as a vessel. It is emphasised in Buddhism that the body is not a static architecture standing alone but in a constant process of experience and change. One of the *five aggregates*, *Rūpa*, commonly translated as body or form, means bodily process which is the manifestation of four basic elements - earth (solidity), water (cohesion), fire (heat), and air (movement) which form the physical world and are constantly changing. The Buddha did not give metaphysical statements about the body but talked about the body as something to develop mindfulness of, in whatever one does in daily life. Written in the scriptures, he encouraged his disciples to view different body parts as one views different grains in a bag, or as a butcher views a carcass to be cut into pieces,

and pointed out that the living body is of the same nature as "a dead, livid, bloated body", and that "this body will soon be void of consciousness and cast away. It will lie on the ground just like a rotten log" (Amaravati, 2015, p. 67; Bodhi & Nanamoli, 1995, p. 950).

Focusing on the unattractiveness and impermanence of the body is a way to look at it, which is "one of the many effective and essential tools he left behind to help alleviate the suffering of the world" (Thanissaro, 2014). As Thanissaro writes, he reflects on visiting a terminally ill liver cancer patient. The patient blurted out that it was not the pain but the shame that was the worst part of the cancer - he could not bear to look at the bloated belly as he had been proud of being fit all his life. In Thanissaro's view, contemplating the unattractiveness and impermanence of the body may be helpful in coping with illness as it diminishes the attachment to the body, but it would not hinder the body being well taken care of. It is after all a vehicle for liberation and expressing compassion (Thanissaro, 2014).

The sense of ownership of the body is intrinsically linked to the one of pain. There is a growing emphasis in studies that the perceptual status of body ownership gives rise to phenomenological experience of pain (Pia et al., 2013). It is the sense of ownership that underlies suffering as it is very much related to the sense of self.

It was clear in P15's case when she affirmed the ownership of pain and suffering — "it's just part of who you are" — and identified herself as "worrier". With stress and anxiety, it formed a self-fulfilling circle. Similarly, in P9's account, she identified with the pain and the body while not wanting to be seen as a victim of any sort, and rather created a self-image of a "super capable" woman, which led her to say yes to everything despite being in pain. She acknowledged the vicious circle, but found it "hard to step back".

However, findings from different laboratories show that the sense of ownership of the body seems illusory. Besides the classic "rubber hand illusion", there is a new version of it where participants are put in a setup and a virtual hand flashes red in time or out of time with their heartbeat. The researchers found that the participants identify more with the virtual hand when it flashes in time with their heartbeat. The results

demonstrate that bodily signals, through multisensory integration, influence the experience of body ownership (Seth, 2016; Suzuki et al., 2013). In an experiment using conflicting visual-somatosensory input to manipulate the bodily self-consciousness, participants with a head-mounted device identified with a virtual body and mislocalised themselves outside the borders of their bodies (Tadi et al., 2007). The findings indicate that it is the integration of multisensory signals that underlies the sense of body ownership and self.

From ancient to modern times, all these voices have been saying from different directions that the sense of body ownership is illusory. Because it is highly associated with suffering, truly understanding its nature could bring relief of suffering.

"My body is in pain," "I am in pain," "my pain is killing me," we shout out when we experience pain. Is it the "body" or "I" that is in pain?

When one talks about pain, or most other everyday experiences, it usually involves an "I", "me" or "mine". To understand pain, we should first try to look at the elusive self, a notoriously ambiguous topic. But the intention is not to define the self or argue its existence, rather, to be curious about this murky ground so as to understand phenomenal experience. Many people have suggested many theories. There are various names related to it: ego, narrative self (person), minimal self, core self, Self (with a capital S), etc; or perhaps they should be called self forms or models (Siderits et al., 2011). It can be concluded that the notion of the self is one that is "in line with our pre-philosophical, everyday understanding of who we are" and with the assumption that the self is a somebody that is in charge of thoughts and experiences rather than being constructed by them (Siderits et al., 2011, p. 83).

Let us roughly call the "I-ness" experience the self, as William James (1901) concludes "Self is the sum total of all that he can call his". There is always a language issue with discussion on the self. It may be worth mentioning that the self Jung (1959) talks about seems different to James's – Jung refers to it as "total personality" and relates it to the God image or "wholeness"- which the ego subordinates to and is part of. The ego is related to all the conscious contents while based on the somatic and the psychic; both

consist of conscious and unconscious factors, and the ego must be transcended to realise the self as "an archetypal symbol" which is "universal and eternal" through the process of individuation (p.63). This self is much larger than the "I-ness", the narrow sense of self, or the ego.

The self is appearing more and more frequently in psychology and neuroscience, even in mass media. William James (1947) depicts the self vividly: "the continuous identity" where new experiences looking back at the old ones, "find them 'warm', and greet and appropriate them as 'mine'". The feelings arising from these "operations" are the heart of self. It is widely noted that the self has many dimensions, from bodily self, perspective self to narrative self that is enriched with past memories and future planning, like woven life stories, all of which seem to integrate nicely in daily life and create an experience of being "myself".

The "self" in classical Chinese thought, considered as one of the many manifestations of the Way (Tao/Dao), is perceived as a "psychosomatic process" which contrasts with Greek philosopher Pythagoras's view of "a disembodied soul that 'thinks' the eternal and unchanging archē²⁰" (Kasulis et al., 1993, pp. 158, 150). Schmalzl et al (2014) affirmed the primacy of a bodily sense of the sense of the self and that the self is not merely neural activity but a picture interwoven with the brain, body and background.

The sense of self comes without effort as a carrier of identity and consciousness. It seems to be unquestionable and central to all our experiences, but when examined closely, is there really an "I" that is suffering? Could believing in an "I" lead to suffering? We are so conditioned to believe in a unified and unchanging self. However, the self is an experiential process subject to change (Thompson, 2016) and is nothing more than an intricate construction of bodily, perceptual, emotional and cognitive processes. Like gendered identity, other aspects of the self establish through a "stylized repetition of actions" (Butler, 1988). Any change made to the repetition can change or crumble the self. It is not a new idea that the self is fundamentally fragmented, and many thinkers and scientists have challenged the concept of self

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²⁰ A term established by Aristotle to mean "principle", "originating source" or "cause". Routledge Encyclopedia of Philosophy

being the centre of experience. It is not only a metaphysical matter but is in contact with everyday life (Varela et al., 2017), and under scrutiny the everyday beliefs about the self start to shatter (Scientist, 2013). Figure 6 embodies the concept of the "obliteration of the self".



Figure 6 Yayoi Kusama's Infinity Mirrors Rooms. Image downloaded from https://hirshhorn.si.edu/kusama/infinity-rooms/

Buddhism analyses how the sense of self comes to be with *five aggregates* (*khandha*)²¹, yet, it is not trying to define what a person is but to define suffering (Thanissaro, 2010). As Alan Watts points out, "oriental 'philosophy' is not concerned with conception, ideas [...] it is concerned with transformation of experience itself" (as cited in Ho, 1995).

Buddhist teaching suggests that there is not a self, not in a sense of nihilism, but the middle way of neither being or non-being (Kasulis et al., 1993). The so-called self is a constantly changing experience and continuous process of becoming or manifesting, arising and passing away, like everything else. But it is effortless for people to believe

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²¹ See I.3 p.41.

in a self, out of ignorance 22 , i.e., not comprehending *dependent origination* ($Prat\bar{\imath}tyasamutp\bar{a}da$) 23 .

In the Yamaka Sutta,

An uninstructed, run-of-the-mill person [...] assumes form to be the self, or the self as possessing form, or form as in the self, or the self as in form.

He assumes feeling, perception, (mental) fabrications, consciousness to be the self [...] or the self as possessing consciousness, or consciousness as in the self, or the self as in consciousness. (Thanissaro, 2013c)

All those assumptions are from a dualistic standpoint that there is a self separate from experiences, and assume all the conditioned phenomena are permanent. *Dependent origination (Pratītyasamutpāda)* implies that there is not an independently standing phenomenon. It depicts a process from ignorance to death, and fundamentally analyses how suffering begins and ceases. Bhikkhu Bodhi (2013) refers to it as the unifying theme, a crucial principle of the Buddha's teaching, binding together the four noble truths, the middle way and selflessness.

It is encapsulated in a twelve-link formula (Bodhi, 2013; Thanissaro, 2013b) exhibiting the causal connections needed for suffering to arise:

dependent on ignorance -> kamma formations (habitual drives) -> consciousness -> subject and object (mentality and materiality) -> six-sense base -> contact -> feeling -> craving -> clinging -> becoming (existence) -> birth -> aging, death, sorrow, lamentation, pain, distress, and despair.

Because of ignorance, kamma formations or habitual drives condition consciousness into dichotomy/discrimination which continues to operate with a subject—object mode through the six-sense²⁴ base as contact with the six senses happen. Then feeling arises, prompting desire and so grasping is generated, forming obsessions. It then leads to becoming (a person/self) resulting in suffering.

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²² To put it with plain language: not knowing what is going on with the mind

²³ Sometimes it is translated as Dependent Co-arising

²⁴ eye, ear, nose, tongue, body, intellect

This formula is emphasised in suttas in the Pali Canon where the Buddha describes each link as "impermanent, compounded, dependently-arisen, characterized by waning, by fading, by stopping, by destruction" (Shulman, 2008).

With the understanding of the nature of subjective experience, it is possible to end suffering, as concluded with a well discussed quote from the Pali Canon, "when this is, that is. Once this arises, that arises. When this is not, that is not. Once this ceases, that ceases" (Shulman, 2008). One can refer to the stages of jhāna²⁵ which describe the transcendence of pleasure and pain and that there is not a self separate from the experience (Coakley & Shelemay, 2007, pp. 112-113).

Taoism also touches on the topic of the self as seen in the classics. "吾喪我 (I lost the self)" marks the beginning of the chapter 齊物論 Discussion on Making All Things equal in 莊子 Zhuangzi. "I sat and forgot the outside world before and today I forgot my own existence," the character Ziqi told his disciple Ziyou. He then unfolds his arguments with metaphors that when one realises such a state, one is freed from the discriminative, i.e., the "good" and the "bad" and perceives the world as it is, in accordance with the Tao. And this is beyond the limitations of the self.

In the chapter 大宗師The Great and Venerable Teacher, Confucius told Yen Hui,

we go around telling each other, I do this I do that — but how do we know that this 'I' we talk about has any 'I' to it? You dream you are a bird and soar up into the sky; you dream you are a fish and dive down in the pool. But now when you tell me about it, how do you know whether you are awake or still dreaming [...] Be content to go along and forget about change and then you can enter the mysterious oneness of *Heaven*." (Zhuangzi, 1968, p. 51).

A conclusion is made in *Zhuangzi*, "the *Perfect Man* has no self; the *Holy Man* has no merit; the *Sage* has no fame" (Zhuangzi, 1968, p. 3).

In Chinese traditions, all forms of beings are made of qi, the vital energy, so everything is connected and in uniformity in a sense. Cheng Hao (程顥, 1032–1085), a neo-

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²⁵ the first state of contemplation which follows detachment from desire, negative actions and states of mind ... and encompasses the joy and happiness that arises from detachment (Coakley & Shelemay, 2007, pp. 112).

Confucian philosopher, defined humanity as "to the man of humanity, there is nothing that is not himself". Tu Weiming interprets that the Self embodies all things "experientially and holistically". Humanity has no limit when the heart is sensitive to all beings, the world and the cosmos, and the body's *qi* would permeate the macrocosm and the painful experiences could be transformed into tranquillity (Coakley & Shelemay, 2007, p. 234).

An interesting experience of being bitten by a tick was shared by P17 (German/Turkish genderless, 27, mindfulness/Samatha meditation) who saw a transformation from pain to peace. She described much suffering initially because "at first I was just worrying about myself [catching Lyme disease]". After the tick was taken out dead and calmness returned, upon reflection, her mind went to the dead tick which "just wanted to survive and get some food and that's the way to get food. If I were to get lime disease, it wasn't the intention of the tick."

It was the moment self-centredness transformed into compassion which, she said, if she did get Lyme disease, she could recollect and put Buddhist teaching into practice. She then remarked on pain ownership: "it was definitely my pain, until I had the compassion. Then I could see it was universal pain. Now I see what universal love is."

Meditation practice and Buddhist teaching led her to experience selflessness and a boundless heart. When self-centredness becomes everything-connectedness, pain transforms to tranquillity and compassion.

Transformation is possible - given that the multisensory experience of the bodily self and the conscious experience of pain are closely interlinked, alterations in bodily self-consciousness could modify the experience of pain (Pamment & Aspell, 2016). Studies have shown that the perceived experience of pain can be altered by illusions. For example, phantom limb pain was reduced with mirror treatment where patients attempted to perform movements with the amputated limb while viewing the reflected image of the movement of their intact limb (Chan et al., 2007). The perception of bodily senses occurs at the mind-body interface and the mind can play a critical role in shaping how we perceive the body. Experiments have shown that to focus only on the affected body part changes the way the sensations are processed in

the brain (Kerr, 2015). Although there has not been an agreement on the effect of attention on pain – some studies suggest attention lessens the pain and some suggest the opposite – the proof of malleability of the pain experience is there. The hypothesis here is that it depends on the attention - whether it is compassionate or malevolent. One can place attention on the pain and keep thinking "I hate you! Go away!" or one can choose to apply kindness and patience, and say "what do you need?"

The experience of P0 (Chinese female, 31, Vipassana and tai chi/qigong) may provide some insights. Her response to pain caused by a kitchen accident was to focus on the sensation and see how it felt and check if anything was broken. Then she stroked it with her hand, with an application of compassion, "like trying to comfort it". She felt sorry for the foot as it was damaged due to her carelessness with a heavy chopping board which fell corner first on her foot from chest height. The pain that felt like "a hammer hitting my heart" eased with her acceptance and compassion, as well as the kindness she received. Even though the pain stayed for two months, affecting daily life, her experience was with ease as she perceived pain as "just an experience and a test [...] to see if you get caught up in it and let it affect you, and something to learn from."

Without the sense of ownership or identifying with the pain, she even found it a "blessing" because of "a lot of care and love" from people around her. As mentioned before, social environment is an important factor in pain experience, as are the sense of self and ownership. Her experience was an example of how a supposed-to-be bad experience became "bright and warm", the way she described her drawing (Figure 7). Because "the first thing that came to my mind was the kindness", she used a warm-coloured lotus as a symbol of compassion with some red and yellow that emanate out representing the actual sensations and light.



Figure 7 PO's drawing

II.2 The influential elements

II.2.1 Culture

There are cultural elements scattered under different sections in this thesis, demonstrating its broad influences. Culture has a range of definitions, one of which describes it as common behavioural responses that are influenced by society, religion, intellect and art (Kwok, 2014). It can also be understood as "the total way of life of a people, the social legacy the individual acquires from his group" from an anthropological perspective (Kluckhohn, 1960, p. 20). He further commented, "to be human is to be cultured," and acts cannot be explained only by biological properties, past experiences and the present situation.

As a pattern of belief and behaviour, culture is a conditioning force which shapes behaviour, attitude, meaning, perception and so on. Knowingly or not, it has a multitude of influences on our experience, along with a convergence of many factors. Cultural models affect both the sufferer's and the healer's response to pain (Coakley & Shelemay, 2007). Cultural disparities have been found in different settings in assessing and treating pain and culturally sensitive intervention seems to be a complex task for health professionals (Henschke et al., 2016). It is essential to better understand culture in terms of healing.

Some believe that factors such as gender, age and education that contribute to pain experience and expression can only make sense in the context of culture (Sussex, 2015). Even though the boundary of cultures today is blurred by globalisation, there are still observable distinctions in different cultures. Research has shown culture has an effect on pain sensitivity (Al-Harthy et al., 2016) and perception (Henschke et al., 2016). People from Eastern cultures show more pain tolerance than Westerners, and results from a quantitative study focused on college students in India and the U.S. are consistent with previous studies (Nayak et al., 2000). A systematic review by Kwok et al. (2014) concludes Asian patients tend to hide their pain, while white patients seek medical help to control their pain. This corresponds with the behaviour of some of the British participants in this study, while other British participants fell in the categories of working through or tolerating it, being with it or observing it, and distracting themselves, depending on other influencing elements. The Asian participants in this study did not hide the pain but some chose to be with, or observe the pain with the influence of meditation practice; some Chinese participants used TCM self-care and some tended to endure it. China and some other Asian countries are much influenced by Confucian tradition in which pain is not regarded as redemption or a trial as from a Christian perspective; instead, it is a purifying experience related to our lives and the lives of others (Coakley & Shelemay, 2007).

As anthropologists Cassaniti and Luhrmann (2014) write: "a phenomenological experience is an interaction between cultural invitation and bodily physiology", they note that experience is modulated by the ways culture gives significance and meaning to sensation. Studies have found that cultural tools and practices shape brain processes to a high degree, resulting in culturally patterned neural activities i.e., there are cultural differences in brain mechanisms underlying the sense of self and other cognitive and emotional aspects (Kitayama & Park, 2010).

As the emerging field of cultural neuroscience reveals that culture easily impacts the brain mechanism²⁶ underlying perception, it becomes clear that the meanings and traditions of a sociocultural environment can shape the perceptual and behavioural

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²⁶ Of course, this is not to say that is all there is. Brain science is one of the ways of looking at experience.

tendencies of a person. Growing evidence has shown that cultural and neural processes heavily interact with each other and that culture can shape processes of perception (Ambady & Freeman, 2015; Freeman et al., 2009). Howard Fields summarises that the language of neural activity tells the story of "evolutionary history accumulated icons of culture" and the individual's own narrative, which is translated into subjective experience and behaviour (Coakley & Shelemay, 2007, p. 37).

It must be made clear that acknowledging the importance of culture is by no means counteracting that of individuality, but helps the understanding of experience.

Behaviour and perception

The following section investigates the participants' behaviour towards and perception of pain, exploring the influence of culture in a broad sense as well as a narrower sense such as family and community. A variety of pain behaviour was reported by participants, ranging from: doing everything to try to get rid of it to simply being with it; avoiding it to facing it; embodied expression to silently tolerating and working through it; and so on. Among these behaviours, there lies the choice: to take painkillers or not to take painkillers.

One of the clear cultural differences from this was that most Chinese²⁷ and other Asians did not take any form of painkillers, while half of the British participants and other Europeans, Americans and two "British Chinese" ²⁸ did take them. One participant (P9) mentioned that she had even been on 24 paracetamols a day. Of the 11 British participants who did not take painkillers, nine were Vipassana or mindfulness practitioners and two of other contemplative practices (visualisation and reflection).

²⁸ One identified himself as British Chinese; the other as Hong Kong Chinese. Both have been living in the UK for more than half of their lives and are from the same Christian community.

interventions rather than painkillers.

²⁷ Chinese participants P5, P23, P41 were not included here because their conditions required medical

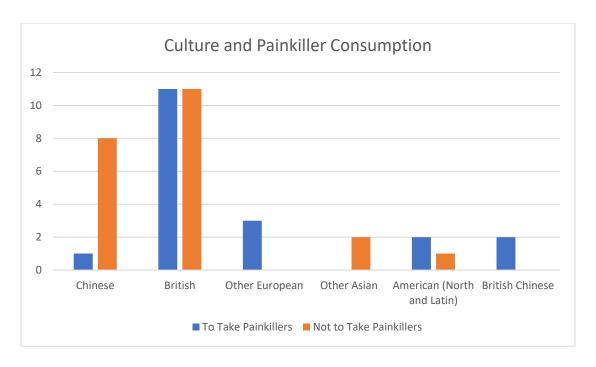


Figure 8 Correlation between Culture and Painkiller Consumption

Figure 8 above (and other graphs) only provide an overview and should not be taken as any form of generalisation - it is crucial to investigate the participants' experiences. Many Chinese participants would choose "hands on" methods to ease the pain, such as massage or application of herbal oils, over painkillers, which could be interpreted as a consequence of TCM being rooted in their lives, and that painkillers being viewed as "not very good", "not curing the root" but forming dependencies as P3 (Chinese female, 42, no practice) and P53 (Chinese female, 28, no practice) remarked. In particular, P53 pointed out that she never took painkillers before coming to the U.K because "it's better to bear it than to take painkillers to supress it as long as it's not the last thing you can do." When asked why she might take it here in the U.K, she referred to the easy accessibility and the high frequency of being prescribed by doctors — "when you go to see the doctors, they will prescribe painkillers". It was mentioned by many participants that the doctors do tend to prescribe painkillers, ranging from the over-the-counter ones to strong opioids and that they are not always effective but induce drowsiness.

P3 chose to tolerate the severe monthly menstrual pain without painkillers for decades which she described as painful as labour pain. She had sought medical advice, but no explanation was given. When she experienced the pain, her reaction was "oh, here it comes again" and to see how it developed and if she would need to be off work.

It echoes the Taoist concept ### non acting. She would "bear it with myself and wait for it to pass" even though "it's so difficult to bear", and close her bedroom door to roll in bed and groan alone. Pain to her is a part of life and a "natural thing" like "joy, anger and sorrow, or the feeling of heaviness or tiredness." Her words and tone revealed a sense of acceptance and a kind of ease. Her perception of pain is akin to what has been discussed in the previous section, that any form of suffering is natural or from Heaven in a Chinese conception.

This contrasts with the experience of P6 (British female, 66, Christian upbringing and now a Buddhist), who also had unexplained menstrual pain over 20 years ago which was "intolerable". She ended up having a hysterectomy as a treatment despite there being no diagnosis for the symptom after much effort, because it was so debilitating that it made her "unable to function for a couple of days every month", and painkillers did not give any relief. The pain to her was distressing, without rationale, and something to be got rid of even though it meant giving up on the uterus. Her attitude to pain was that she would not let it stop her from doing things and would try everything to sort it out.

The two different perceptions coming from different conditioning led to different actions and experiences. The influence of Confucius culture cannot be separated from the tendency of tolerating pain in the East. The old saying "if you can tolerate the greatest pain, you can be the greatest man" was made prevalent by the ruling power in feudal society but it is still acknowledged today. In modern Western societies, pain being conceptualised as bad and objectified deeply take root in people's perception, and with rationalism, people are desperate for the rationale. Although these two participants have quite distinct perspectives and behaviour, the images they drew share some similarity. Again, images must be understood with people's own accounts.

They both depict darkness and sharpness – both participants described the pain as sharp, while P3 emphasised on the darkness which she thought applied to every pain, suggesting the inner nature and unpleasantness; and P6 on sharpness associating with violence, and emphasised it being endless and intolerable. It seems that their experiences in terms of sensations are alike while the perception is the variable. P6

perceived it as something violent and having a negative impact on her life and she chose to deal with it with a rather violent method, a hysterectomy. P3 took it as something natural that would pass, despite its unpleasantness, and after seeking medical advice she chose to coexist with pain with a bit more tolerance than violence.

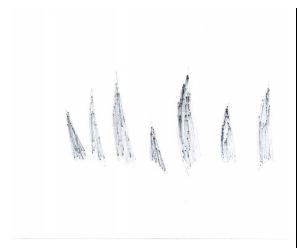


Figure 9 P3's drawing: "sharp, dark, very dark. Not pleasant."



Figure 10 P6's drawing: "a violent thing. So sharp. Endless. Intolerable"

Over half of British participants actively take action to manage, control or change the pain, such as visiting doctors and therapists, taking medication, exercise, using heat pads, and changing their physical environments. Some of them indicated "I do everything to alleviate it/make it better" which is a natural but learned response as if pain is an entity that bears the quality of "unwanted" and "bad", and sometimes the desire to get rid of pain becomes so strong that if nothing helps, the pain becomes frustration, or in P8's (English female, 74, Christian) words, "infuriating". She had various pain to varying degrees, sought different medical advice, had been referred to numerous specialists and given a range of medications and treatments, but nothing really helped. She said,

now I had a knee replacement. I've developed a neuropathic pain which they couldn't do anything about. I don't like people to tell me they can't do anything because I believe there is always something they can do. Because my other knee also needs replacement, I don't know what to do.

Distracting oneself was a common response and her way was by reading or playing with grandchildren. When asked if she was suffering, she replied, "I wouldn't use this word but it's strong nuisance [...] largely because I try to ignore it, you see." Ignoring it and distracting may sound contradictory to her active seeking to change the painful state but it is unacceptance that underlies the phenomena.

If nothing helped, some stated then they "learn to live with it", as P30 (Persian British male, 62, Christian) shared:

I just learn to live with it, after so many tests and the doctors couldn't find any cause of my problems [...] I took his [the doctor] advice to accept it that I am just not like someone who is fully healthy. (Does it help after you took up that attitude?) It does but that is at the back of my head. You know when you wake up the next day and nothing has changed [...] I think I kind of accept it, or maybe I am just masking it. I don't know.

He suffered from somatic pain and depression, which he understood was a vicious circle, but he could not get out of the circle because of the clinging to the desire of getting rid of pain. Learning to live with it does not equate to acceptance, and acceptance does not mean nonaction or even numbness. When there is true acceptance, there is reconciliation.

As P32 (American male, 30, Theravada Buddhist meditation) alluded to his chronic knee pain, he recalled the change in response to pain, from "I don't want it", "worried it would last forever", "not accepting the reality", "tried to get rid of it and figure out the cause" to "just be aware", "nothing is permanent".

Being affected by Western rationalism, he was "desperate" to find out the cause but unsuccessfully despite trying hard and ended up having ineffective knee surgery which he regretted it. Although the cause remained unknown, he said he had learned to listen to the body, to know what affected the pain in both ways, and to relate to pain in a different way.





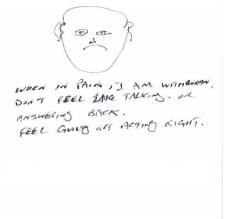


Figure 12 P30's drawing: "me, withdrawn" taking up only the top half of an A4 paper

The face P32's drew has "serene eyes" which signifies "making peace with it [pain]"; with the presence of the dark side represented by clouds, and tears on the sunny side means "hope". He added,

I was feeling sorrow and remorse when I wrote "I'm sorry for not listening" but "I'm also humbled" means it's a learning experience. "Thank you": I started to be grateful with last year or so.

While P32's drawing suggests reconciliation, with pain and himself, P30's depicts the vicious circle he was talking about: pain – depressed – not acting "right" – feeling guilty – depressed. He concluded, "I feel bad acting like that, and then I justify myself; they don't know what I am going through. I don't know how to draw that."

He made it clear that he was suffering but it was faith that made him carry on with this life, because he believed in another life: "if I suffer in this life, there is a better life ahead and I am going to be with God". It was his meaning of pain and delicate last hope, without which, he said, "I don't know what the consequences would be". The idea that intensified pain is brought about from the "union" with Christ is not only a subjective addition to pain but may well be an escape from an unbearable pain (Coakley & Shelemay, 2007, p. 9), which seems to apply to P30. Religion has a big part in culture and it is true that religious belief or faith is powerful in coping and giving hope (Callister, 2003). Faith does mean hope, however, it does not necessarily mean less suffering, in this life at least. This is not to say that faith does not "work", but to alleviate suffering or have a peaceful relation with pain, faith will need to work together with insights arising from direct embodied experience.

Not only faith played an important role in P30's experience, but also upbringing and environment. He grew up seeing his mother in pain and suffering "physically and mentally like myself. I inherited from my mother", which informed how he dealt with pain. How one responds to and copes with pain are learned and influenced by sociocultural factors.

The influence of upbringing and environment on their pain experiences is one of the common themes as mentioned by a few other participants. P21 (Irish French Welsh female, 59, brought up as Catholic/practises visualisation/art making) also grew up seeing her mother coping with pain but in a stoical manner. Her mother chose to endure the pain and not to be numbed by medication, which was how she responded to pain. She said that she was brought up being stoic, "when we hurt ourselves, we don't make a fuss or make it into a focus. You move on" and seeing other family members who had more serious conditions dealing with pain with strength also influenced her way of coping with pain.

P9 (Irish British female, 42, brought up in Brethren – Gospel Halls) said that because of the church and family she was brought up in, she had to say yes to everything to fulfil the expect of the woman's role of being able to do everything, even when she was in pain. She would feel guilty if fails to do so, "like you get the validation of the sense of self through helping everybody else". "I don't like to see myself someone who's ill or suffering or a victim in any way. I like to pretend I am super capable." There was a strong sense of self implied in her words that seemed to inform her behaviour of "working through it [pain]". She suggested the sense of ownership of pain and said "I am in charge. I don't want to get to a point that the pain takes over. I am talking like the pain is a separate person there."

Her drawing (Figure 13) shows a picture of owning and in charge of pain which is objectified as a "sore shadow that is there all the time". But it is behind and smaller than "her" situated in the middle of the paper, because she would not let pain take over although she could not escape. She was trying to unlearn the pattern by learning to say no but "still find it hard". Sure enough, something like rewiring the brain or changing perception is not something intellectual understanding alone could help.

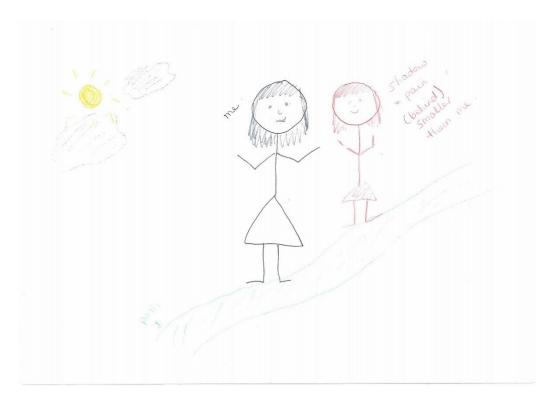


Figure 13 P9's drawing: me and my sore shadow

There are 27 responses indicating ownership of pain, of which the majority are from the West, and 21 responses stated they did not own it; 11 Easterners (Chinese, Thai and Bangladeshi) and the rest Western meditators (Figure 14 provides an overview). Three participants fell into both groups — P31 (British Chinese male, 58, Christian) indicated the pain physically was his, but it was also others psychologically; P16 (Taiwanese female, non-practice Buddhist upbringing) who felt emotional pain belonged to her and physical pain not; P17 (German/Turkish genderless, mindfulness/Samatha meditation) who saw a transformation in the experience from "mine" to "not mine" when compassion arose.

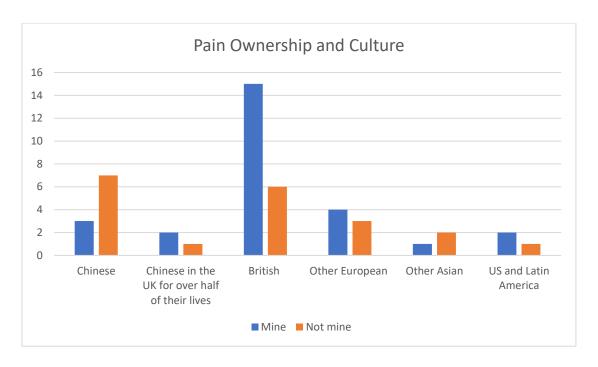


Figure 14 Pain ownership and culture overview

Among the "owner" group, there are a larger number of those who put emphasis on the "I" — "I experience it", "I am pain myself" than those who stressed that "pain is a private/personal/isolating experience". These two emphasises are of different natures. The former suggests a sense of self while the latter a feature of pain experience which associates with the ineffability and social relations. For example, P21 (Irish French Welsh female, 59) stated, "I can't see as somebody else's. I own it." And P34 (British male, 46) said, "yes, it's linked to the impact of somebody's lives and how they see themselves." For the latter, P14 (British female, 47) said, "yes, I would call it 'my pain' as it feels like an intensely personal and isolating experience." P49 (British female, 51) said, "yes, it's mine. No one else can feel it." Interestingly, P31's (British Chinese male, 58) remark "physically it is my pain but psychologically it affected other people. Because they cared about me, they might suffer" seems to suggest that pain can be both private and sharable.

Among the participants who negated ownership of pain, examples following are ones without contemplative practices. P2 (Chinese female, 31) and P53 (Chinese female, 28) shared the experiences of breaking up with their partners, and despite their worlds being much stirred by them, they did not register a sense of ownership of pain, which might have helped coping. P53 expressed that, "everyone must have experienced such

experiences [...] I am not alone feeling such feeling and it makes me feel better"; P2, "it's just pain. Life is like that."

The participants' responses show a variety of outlooks on pain. Six Western participants indicated that pain was negative and that they suffered. Other responses fall on the following categories:

- 1) pain brings a negative feeling or impact but it has a positive side (N=17)
- 2) pain is neither positive nor negative (it is as it is) (N=7)
- 3) positive (N=5)
- 4) positive for some pains i.e., acute pain and pain after sport (N=3)
- 5) positive, negative and neutral (N=2)

Participants of category 1 consisted of Chinese and other Asians, and Westerners with contemplative practice backgrounds apart from one British (P34, male, 46) who did not have any practice or religious background but reflected upon the interview and found the positive side. He experienced a change in the unexplained six-week knee pain physically and mentally, from feeling miserable and stressed to accepting and "happier". It was the first significant pain to have an impact on his daily life, and he was surprised that his initial responses were "opposite" to the more positive intellectual understanding shown in his research on disability. Retrospectively, he found pain "kind of positive" as it "stirred" him to go swimming which he did not think he would have done without the experience pain. The intrinsic human ability of reflection has a pragmatic effect on one's outlook and even the experience of pain.

The others further commented that pain is an important indicator and part of the human condition, as well as a drive for positive change. The Eastern non-contemplative participants P23 (female, 22), P43 (male, 32) and P16 (female 28) stated that pain reminded them to take better care of themselves. P23 also thought that pain would pass and make her stronger and help her be more empathetic, and that all pain was good for her, even though during the painful episodes there were "inconveniences" and "bad feelings". They viewed pain as a "passer-by" rather an "enemy", compared to P24 (British female, 21, agnostic although brought up as

Christian) who found the pain "exhausting, debilitating, and I dislike it, want it to go away."

Category 2 sees a mix of cultural background and all practice meditation but one (P41, Chinese male, 62, no practice) with a comment "it's given by the *Heaven* and just accept it". It is an example for that different cultural groups have different expectations and acceptance of pain, and these are vital to the behaviour and experience (Zborowski, 1952). In the same category, P22 (Puerto Rican, female, 42, Vipassana) further commented that "it depends on how you interpret it [...] the mind puts a meaning on it. In our culture, we do everything not to feel pain. Back in my grandma's generation, people work outside under difficult conditions. They are much better in dealing with pain."

Meaning

There is a "why" accompanying pain, but people usually ask "why me" when they experience pain and not "why you" when others experience pain, which comes back to the investigation on the self in the previous section. People also ask doctors "why" about the problem, the cause, the rationale, but answers to these questions are not always possible, even after numerous tests. Patients then become frustrated and finally, they ask themselves "why". Meaning plays a vital role in the experience of pain, and is the most reported cultural difference in the studies of pain focused on crosscultural differences between 1985 and 1996 (Callister, 2003). "Pain is something that almost intrinsically calls for interpretation" (Morris, 1991, p. 33), and the way pain is interpreted is one of the determinants of suffering. People that are able to find meaning in pain suffer less than those find no meaning, as research shows (Kodiath, 1998).

The way to interpret pain is informed by culture, personal experience and context. For example, labour pain is thought to be the most painful experience but very few participants mentioned it when they talked about pain experience. Two who did, said "it is a productive pain" and "when you see a beautiful baby, you forget the pain". In the context of giving birth, the seemingly most painful of experiences has a taste of happiness. Pain does not equal suffering – when we scratch ourselves we are inflicting

pain on ourselves, but this is followed by pleasing relief. How about people who get one tattoo after another? They are not necessarily masochists; it simply means that pain means something different to them than what toothache means to another person. One may say these examples are different. It *seems* different and it is the mind that makes it *seem* different. Pain is not inherently unpleasant, which can be seen in some of the participants responses.

To experience pain is of the same nature as experiencing Andy Warhol's Soup Cans (Figure 15). Context matters - if it were shown on a billboard, most likely it would be perceived as an advertisement; put in a gallery, it would be viewed as artwork. Context affects meaning and meaning affects the experience. A lingam (a stone phallus, see Figure 16) in Angkor Wat has a totally different meaning and function to a penis drawn on the desk by a naughty kid. The former represents Shiva, the supreme being in Hinduism, and is for people to worship, whereas the latter "reflects an interest in his penis" (Jung, 1990, p. 91).



Figure 15 Andy Warhol Campbell's Soup Cans, 1962. Image downloaded from. https://www.moma.org/collection/works/79809



Figure 16 A photo of Lingam in Angkor Wat, taken by the author in 2015

Meaning is influenced by culture. Watermelons can be a racist symbol, as African Americans are supposedly excessively fond of them. They are also associated with the dead in Mexico as they are often found in art related to *Día de los Muertos* (Day of the Dead) (New World Encyclopedia, 2019). Nevertheless, meaning is a subjective given after all. Frida Kahlo used this symbol of the dead in a painting thought to be her last one, *Sandías* (Watermelons), which appears bright and full of life. On one piece of an open watermelon, she wrote "VIVA LA VIDA" to show appreciation for life.

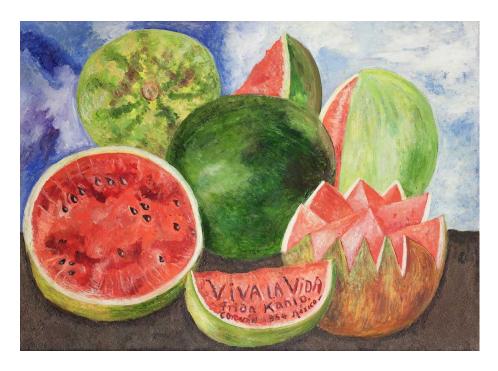


Figure 17 Viva la Vida Frida Kahlo 1954. Museo Frida Kahlo. Image downloaded from Google Arts and Culture

Just as the watermelon can symbolise life, death or be used in a racist way, pain holds a multitude of meanings which Fields refers to as "a set of associations" (Coakley & Shelemay, 2007, p. 37). In primitive civilisations, it was believed that illness and healing came from the gods, and priests were usually doctors as well communicators with gods to enable healing (Morris, 1991). In some parts of the world today, such as Asia, Africa and America, it is believed that pain comes from the natural or spirit world. Thereby healing is performed by traditional healers or spiritual leaders, such as griots and shamans, with rituals to connect to these realms.

In the West, what people believe pain to be has changed over the centuries. From the 18^{th} to 21^{st} century, pain was believed to be a message from God or Nature, something to refine the soul, something to be accepted, and an unwelcomed evil (Bourke, 2017). The Latin origin of "pain" is *poena* which means penalty. In a qualitative study (Koffman et al., 2008) involving interviews to explore the meaning of pain to black Caribbean and white British cancer patients, both groups identified pain as a "challenge" to be dealt with and an "enemy". Black Caribbean patients perceived pain as a "test of faith" and "punishment". In the East, the meaning of pain has inevitably been influenced by Westernisation, like many other things, but some people still hold the traditional view that pain is something natural, or to be endured.

People do not go around thinking about the meaning of pain but when the question of meaning is posed, the answers are revealing. Meanings from the participants of this study can be categorised as follows:

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a) part of life (N=10)
b) signal/warning (N=13)
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c) suffering/something unwanted (N=11)

d) teacher (N=21)

e) other (N=19): e1) a feeling or experience like joy and sorrow (N=3)

e2) a changing phenomenon (N=4)

e3) death (N=1)

e4) getting old (N=1)

- e5) karma/choiceless encounter (N=2)
- e6) redemption/to get close to god (N=2)
- e7) achievement (N=1)
- e8) loss of control and identity (N=3)
- e9) something that requires help from others (N=1)
- e10) test (N=1)

Because of the diversity of answers collected, Figure 18 only includes the top four categories for clarity. The most prominent observation is that the opinion of pain being suffering and something to be gotten rid of is exclusively from British participants. This could be interpreted as the influence of the dualistic view, body as a machine and the issue of the self which have been discussed in the earlier sections.

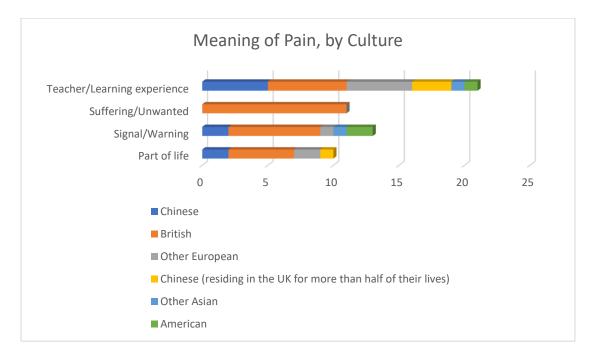


Figure 18 Meaning of pain by culture

Below are the images of body parts from two of these British participants which provide a hint. P13 (British female, 26) who drew a burning tooth to represent her toothache experience said that she took "a lot of painkillers" and "just want to get rid of the pain". Pain meant "hard work, tiring, annoying, frustrating, lack of mobility, feeling rubbish" to her and she owned the pain and suffered from it. Despite the different affected area, P15 described a very similar experience and meaning as P13 using the same words such as "frustration" and "unwanted" but she took

antidepressant rather than painkillers and it helped to her surprise. Their drawings of an isolated part of the body seem to reflect their responses and meanings that pain is a negative thing that should be made gone.



Of all the responses on the meaning of pain, the most commonly identified theme was that of a teacher and learning experience, with 12 from Westerners and nine from Easterners. The majority of these participants practice Vipassana, mindfulness, tai chi or other contemplative practices, apart from four with no contemplative practice who were Chinese and indicated that pain let them learn, grow and become more empathetic.

Of the 12 Westerners, one (P35, British male, 66, tai chi, mindfulness) shared an experience of chest pain on the train which he thought might be a heart attack, influenced by an impression of "a history of weak hearts" in the family. It is natural for fear to appear if one has learned about similar experience in the immediate social environment. He feared that "I am not going to make it to Paddington", but "that's when the meditation practice has been so useful". By focusing on his breath and "being with it"- it being not just the chest pain but also the thoughts and emotions he did not suffer from the second arrow (e.g., fear and anxiety). To "sit down and meet it" was his usual response to pain, and pain to him was body's feedback telling him something, with which he could know himself better. As for the knee pain which

helped him address his tendency of self-criticism, he said, "when I understood the pain was teaching me to let go [...] the pain kind of subsided."

It seems that the meaning given to pain corresponds to what they experience in that a more positive meaning may lead to a more positive experience. From the participants' experiences we can see how one responds to pain is learned and influenced by perception which has a cultural implication to it. Moreover, contemplative practices seem to play an important role in it all. True understanding that comes from direct experience will lead to true acceptance and alleviate suffering.

When P5 (Malaysian Chinese female, 46, Vipassana/mindfulness) was lying on a hospital bed breathing in and out after a major episode of severe pain because of a blood disorder, she found life was "just a breath". She could not see any meaning until she came in touch with meditation with which she realised "I can transcend life and death. This gives me meaning."

To conclude this section with a few lines from *The Great and Venerable Teacher* (Zhuangzi, 1968, p. 84) when a great practitioner Master Yu fell ill and he was asked if he resents it.

What should I resent? [...] I received life because the time had come; I will lose it because the order of things passes on. Be content with this time and dwell in this order and then neither sorrow nor joy can touch you. In ancient times this was called the 'freeing of the bound.' There are those who cannot free themselves, because they are bound by things.

II.2.2 Contemplative Practices

Master Yu's words reveal a sense of peace and total acceptance, and that is a state reachable by humans. This mind-body system can be trained. Neural mechanisms are flexible. Abundant evidence on neuroplasticity demonstrates that the brain's function and structure can be manipulated by environment and changing experience (Shaffer, 2016). There is ample research on the health benefits of contemplative practices such as mindfulness approaches that suggests efficacy in enhancing interoceptive awareness which is essential for beneficial shifts to happen across somatic and mental domains (Farb et al., 2015). Making the choice to change the habit enables new direct

experiences and the change of experiences could change not only the brain but the whole mind-body system.

The term "contemplative practice" can be quite broad but is often interchangeable with "meditation". In Western tradition, the word "meditation" implies "conceptual, thought-based consideration of religious ideas" but it has been used to refer to an extensive range of practices (Schmalzl & Kerr, 2016). In this study, meditation mainly refers to "mindfulness/awareness" practice derived from Theravada Buddhist meditation (Varela et al., 2017, p. xxiii) which is an embodied practice that involves concentration on the present moment, be it the breathing or sensations, rather than imagination or verbalisation, such as Vipassana ²⁹ and secular mindfulness. Even though they come from a Buddhist background, they are known to be non-religious but leading to realisation of a universal reality, e.g., interconnectedness (seeing through the illusion of the self), the changing nature of phenomena, suffering and give rise to insights.

Besides meditation, this study does not rule out other forms of practices such as tai chi/qigong and yoga which can be categorised as "embodied contemplative practices" (Loizzo, 2018), and whatever else the participants identified as contemplative that can sustain embodied concentration, such as artmaking, being in nature, long-distance swimming and activities involving reflection. These practices could be described as, borrowing Merleau-Ponty's words, the suspension of the movement of being "through and through related to the world", by which is "the only way for us to catch sight of ourselves" (Merleau-Ponty & Landes, 2014, p. lxxvii). Jung states, "the more projections are thrust in between the subject and the environment, the harder it is for the ego to see through its illusions" (Jung, 1959, p. 10). Meditation is one that helps see through illusions.

Meditation practices challenge the way things seem to be or the habit of seeing and help one realise the truth of change. By realising the truths from direct experience,

²⁹ Vipassana, a Pali word, means "to see things as they really are". Vipassana meditation is an observation-based, self-exploratory technique which "focuses on the deep interconnection between mind and body" and leads to insight. Dhamma.org. (2019). *Vipassana Meditation*. https://www.dhamma.org/en-US/about/vipassana.

the mind comes to be equanimous or non-judging. In this way meditation can regulate emotions and relieve pain. As the authors of *Pain and Its Transformation* describe, meditation may alleviate pain by moving into the pain and reshaping the relation with it, but the length and depth of practice plays an important role in transformation of experience (Coakley & Shelemay, 2007, p. 9). Nevertheless, emotion regulation and pain relief are merely a by-product of the process of realising the true human nature.

By cultivating awareness of the experience from moment to moment, one starts to see for oneself the changing nature of phenomena such as the seemingly real and solid self, and then let go of it. Depraz et al (2000) describes the structural dynamics of the act of becoming aware as three phases: suspension of habitual thoughts, shifting of the attention from outside to inside, and receptivity or letting go of what comes with the experience. The aim of the practice is to be mindful of whatever one is experiencing and let go of it.

However, mindfulness entails more than just "the awareness that arises from paying attention, on purpose, in the present moment and non-judgmentally" which is a succinct definition given by Jon Kabat-Zinn, "the father of secular mindfulness" (Booth, 2017). According to Buddhist meditation teacher Ajahn Sucitto, mindfulness means bringing the Buddha's teachings (with strong ethical base) to mind as a reference frame which connects to the present experience. A mindful practitioner is mindful of the body, feeling, state of mind and mental qualities such as good will or ill will just as the way they are. In this way, one is not judging, turning away from or repressing the mind state. One does not need to be identified with them either. The reactivity, stress and tension then transform into calm and clarity (Sucitto, 2019). It is said that secular mindfulness is the principles of what the Buddha taught without the Buddhism, which makes it more accessible for the public – so much so that the popularity grows and products in the name of mindfulness are ubiquitous, most of which Kabat-Zinn described as "McMindfulness" (Booth, 2017). As beneficial for wellbeing as meditation practice is, there could be challenges and potential adverse effects if not taught and practiced properly (Cebolla et al., 2017). After all, meditation is not and should not be conceptualised as a cure-all or quick fix for all our problems, even when it has strong evidence backing it.

Often it is the case for beginner meditators that the first insights they get is how difficult it is to focus on something as simple as breathing, how disconnected the mind and body are, and how not present they are, with the mind wandering all over (Varela et al., 2017). What is the problem with a wandering mind? When the mind is wandering, it either dwells in the past or future but not the present. The Chinese word for "the real" is 現實(xiàn shí): 現 means now, and 實 means truth; the word literally means the truth of the present moment. Now is the only instant even if we are reminiscing or planning. A study reported in Science, with a sample of 5,000 adults, investigates how often people's minds wander, what topics they wander to, and how those wanderings affect their happiness. They find that people's minds wander frequently; they are less happy when their minds are wandering than when they are not; and they often think about what is not happening. The conclusion is: a wandering mind is a default mode for humans and results in an unhappy mind (Killingsworth & Gilbert, 2010). When the mind is wandering, the default-mode network, which is a neural activity of the brain network, lights up and it supports self-referential process and is associated with various clinical disorders. During meditative states, the defaultmode is relatively quiet, and stronger connectivity between regions implicated in selfmonitoring and cognitive control is observed (Brewer et al., 2011). This is a manifestation of what meditation does – to penetrate the illusion of the self.

Mind wandering, like other phenomena, encompasses body and mind. Galen of Pergamon, a physician of the 2nd century, was aware that being physically and mentally lacking in energy leads to mind wandering (Christensen et al., 2017). In the Buddha's perspective, a lack of mindfulness of the body can easily lead one to fall off the edge of reality, into past memories or fantasies, and Māra³⁰, the dark force, can find an opportunity to dominate one's mental state. But with mindfulness of the body, one can become the conqueror of fear and dread and endure bodily feelings of pain or that which are disagreeable (Bodhi & Nanamoli, 1995, p. 950).

³⁰ It is also described as "the personification of the forces antagonistic to enlightenment" by Nyanaponika Thera.

In *Satipatthana Sutta*, regarded as the discourse with the most complete instructions on meditation, the Buddha instructed on establishing mindfulness which is "the capacity for attending to the content of our experience as it becomes manifest in the immediate present". It is an immense power "that can unfold all the mind's potentials" and leads to the end of suffering and true happiness (Thera, 1998). When the Buddha gave instructions on ways to cultivate mindfulness of the body, feelings, the mind and mental qualities, he suggested contemplating feeling the painful feeling and recommended "focusing on the phenomenon of origination and passing", without clinging to it (Bodhi & Nanamoli, 1995, p. 145). As meditation practice develops, people cultivate mindfulness and begin to realise the habits and preconceptions that keep them away from their experiences (Varela et al., 2017).

When one feels pain, one suffers because one approaches it as a negative experience, but pain is not intrinsically bad (as discussed in the previous sections). It is the past memory, expectation for the future and cultural conditioning that shape the perception of pain being negative. Pain itself is quite innocent but it is the anger, hatred or other emotions that arise from wanting to be rid of pain or unpleasantness that leads to suffering. Most people, when pain comes, are rarely aware of the actual sensation but are restrained by the mental and physical responses.

In the face of pain, a practitioner can be aware of it as it is and note that the awareness itself is not painful. There will arise the realisation of change from direct experience, and the habit pattern is then seen and understood.

P22 (Puerto Rican, female, 42, Vipassana) shared her experience with consistent lower back pain, and explained how she used meditation as a tool to "work with pain in a healthier way" and it "makes a huge difference" to the experience. Firstly, it helped her be more aware of the sensations even at a low level. Secondly, it enabled her to just acknowledge the sensation without judging it and "give it space" during which she often got some insights about the psychological issues she was experiencing. "Sometimes I will see an image and it's giving it [pain] some form of expression. After that, the pain is diminished."

By being aware of the pain and the mental response, meditation helped her experience it without aversion, although not always — "sometimes I still think, it sucks. But if it's there, it's there." Despite the unpleasantness, she could be aware and reflect on it, and that was no small deal. The way she related to pain has a sense of spaciousness and mutuality. She said, "I see what it says or needs". As she was looking at her drawing with a grey spiral, she said (as if to herself), "the spiral...I wonder what's there. It looks like something deeper..." (for discussion on circle and spiral see III)

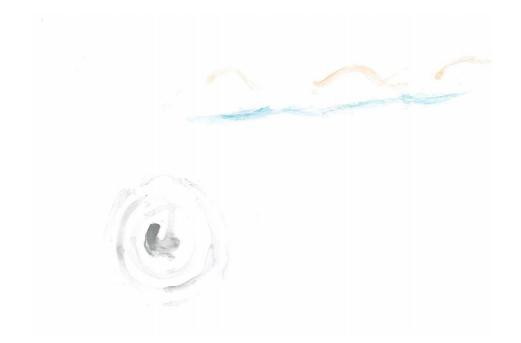


Figure 21 P22's drawing

P28 (Spanish male, 48, Buddhist meditation) also commented on a similar note, "it's a chance to learn about the pain and yourself. It depends on how much you are aware."

A senior Theravada Buddhist nun (personal communication, 2019) described her experience of dental treatment without anaesthetic (which she was allergic to), which the dentist was reluctant to perform. She prepared herself with the understanding that pain is only a concept and was "determined to be curious" about what she could actually feel. She described the process with an image:

So he started drilling. And I was sensing inward, watching my mixed feelings and expectations. Sometimes, he seemed to come close to a nerve, and I could immediately feel the fear of pain coming up and how my body was trying to pull away from the imagined danger. The dentist could sense it as well and stopped drilling for a second, while I managed to breathe into the contracted body and make space around it and be fully aware of what I was actually feeling

in that moment. With that, the body relaxed. I was surprised that there was only a very bearable sense of pain, coming and going. Slowly, I got more confident and relaxed, and at the same time more curious about what would happen. At some point, the thought came up that my tooth nerve was doing a really good job: signalising danger to body consciousness. There was a sense of gratitude for this little thing. And then "this little thing" showed itself to the inner eye: like a tiny flash of lightening, bright yellow and very alive, trembling when the drill would come close. I felt some compassion for it, like you have for a little anxious dog.

This could be titled "contemplative practice at the dentist". While dentists and toothache are a nightmare for many people, her experience shows how meditation practice, with equanimity and compassion, can transform a seemingly hideous experience.

Pain can teach us a lot as P28 said. Sixteen participants who practise meditation or other contemplative practices described pain as a teacher or a learning experience. For example, P19 and P36, Vipassana practitioners, both thought of pain as an opportunity to practise equanimity; P1, also a meditator, mentioned that pain has a lot to teach and through meditation one can be "resourced" when one comes to old age, sickness and death and know how to not suffer. P40 (Welsh male, 47, tai chi/qigong/distance swimming) remarked, besides reminding him of his limitations like friends, "they [the pains] are my teachers now. I am thankful for them because there is nowhere else I can go to learn more." He also noted an interesting relation between the pain and tai chi practice: tai chi and qi gong are his pain managements and the pain a reminder to do them right. When there is this mutuality, the relation with pain is without animosity.

Tai chi is not just a way to manage pain. As well as the positive effect of tai chi on cognitive function (Lam et al., 2011), there is also a positive impact on cognitive-motor interactions (Wayne et al., 2015). Two studies, one using electromyography (EMG), and the other focusing on somatosensory responses to the rubber hand illusion, suggest that tai chi evokes multiple changes in sensory and motor processes over the course of tai chi practice and has an effect on integrated body awareness (Kerr et al., 2016).

As a mind-body practice, it is the manifestation of Taoist philosophy, or simply the $\not\equiv$ Dao/Tao (path, way). By stilling the mind and immersing into the present moment, one progressively moves without conscious interference. This is a state of $\not\equiv$ non-acting and one can realise "I lost the self" and "discarding the physical body, thinking mind and the self" as mentioned in $\not\equiv$ $\not\equiv$ Zhuangzi.

In *The Heaven Sword and Dragon Saber* ³¹, Zhang Sanfeng ³², a Tai chi master, demonstrates Zhang Wuji³³ Tai chi sword moves. An intriguing conversation follows:

Zhang Sanfeng asks, "have you clearly seen it, child?"

Zhang Wuji replies, "yes."

Zhang Sanfeng, "have you remembered it?"

Zhang Wuji, "I have forgotten half."

Zhang Sanfeng, "good. It is not easy. Go and think about it." After a while, he asks again, "how is it now?"

Zhang Wuji, "I have forgotten three quarters."

Zhang Sanfeng, "good. I will demonstrate again." And after he demonstrates something totally different to the first time, he asks, "how is it, child?"

Zhang Wuji, "I have forgotten most of it except three moves."

Zhang Sanfeng nods and put the sword down. Zhang Wuji walks around in the hall and contemplates. Suddenly he shouts with delight, "I have forgotten everything!"

Zhang Sanfeng replies, "very good. You forget very quickly."

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³¹ 倚天屠龍記, a novel by Jin Yong, the third instalment in the *Condor Trilogy*

³² A historic figure in early Ming Dynasty

³³ The main fictional character in the novel

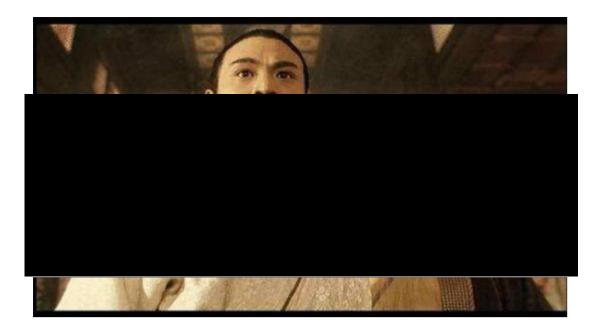


Figure 22. The scene in the TV series of Zhang Sanfeng showing Zhang Wuji Tai chi sword. Image downloaded from https://kknews.cc/culture/lzbjq8z.html

It is a scene that depicts the key idea of Tai chi as well as Taoist philosophy. Embodiment is essential in Tai chi, and the aim is to stop using the (thinking) mind or manas in Buddhist philosophy and let the moves flow through the body. It is most powerful when there is no conscious interference (無爲 non-acting), as then one is one with Heaven (天人合一). Taoism advocates 無爲 non-acting, spontaneous natural action which is in harmony with nature. Zhuangzi emphasises "taking the middle path as a guideline" as it is believed that when human beings, as microcosms, unite with the macrocosm, it brings the natural force, whereas Western philosophers such as Nietzsche stresses will power of man (Chen & Hertzer, 2016).

Being in harmony with nature can bring about healing power as P12 (Chinese female, 55) shared her pain experience about failure and dissatisfaction which she felt she could not get over with while trying to suppress the painful emotions for the sake of her children. But going for a walk in nature was when she experienced a change. Being in nature probably did not make her realise the "one with Heaven (天人合一)" state but it did bring her a relief. She said: "When I see the view, the infinity of the sea, the field, the vast, my pain is nothing. I can breathe out. You just feel calm." She is definitely not alone in this as growing evidence shows the link between well-being and nature, and how connecting to nature is beneficial to human health (Brymer et al., 2019).

She depicted her pain experience as natural scenery with dark clouds but also the presence of a rainbow (see Figure 23). Even though she replied to the pain ownership question with "yes, I experienced it", her drawing somehow does not register a strong sense of "I". Perhaps the vastness of nature overrode the pain and left her with calm which she preferred to remember. I would argue that being in nature mindfully is a contemplative practice of long-term benefits as when one is immersed in the wilderness, the mind is more grounded in the body, the sense of self diminishes, and self-concerns transform into compassion.



Figure 23 P12's depiction of her experience as natural scenery

心藥 Heart fasting, the method Zhuangzi suggests for the path of purification, echoes the instructions of meditation the Buddha taught. "Make your will one, do not listen with your ears but with your mind; do not listen with your mind but listen with qi''^{34} . When one listens with ears, one is very much engaged with the outside world; when one listens with the mind, one finds the mind chattering and jumping from one thought to the other. The "qi'' here can refer to breath and energy. Being aware of each breath and the pause between each breath, one cultivates mindfulness of

.

³⁴ My own translation of this part in Zhuangzi.

breathing as instructed in *Anapanasati Sutta* (Bodhi & Nanamoli, 1995, p. 944). *Zhuangzi* continues, "listening stops with ears, the mind stops with cognition; *qi*, is emptiness that takes in everything. *Dao* is just the assemblage of emptiness and this emptiness is the fasting of heart."

These practices seem to be pointing in one direction: pure awareness which enables us to see things as they are, without imposing perception on them. Picture this: three people seeing a glass bottle-like item may view it as three different things according to their narrative selves, their current feelings and expectations. It could be a water bottle, a vase, or a piece of art, and how they view it will affect what they do with it. But how they view it and what they do with it can also change. A fourth person may see the "emptiness" of this item without imposing perception on it. This picture could fit pain experience.

Ample research has been done on the impact of contemplative practices on pain. Although many of them focus on demonstrating brain mechanisms supporting meditation-induced pain relief, they still provide an angle for looking at this. For example, in meditators they observe deactivation of the thalamus which is associated with the unpleasantness of pain. The more experienced the meditator is, the greater the reduction in activity in the prefrontal cortex, amygdala and hippocampus which deal with the executive, evaluative and emotional components of pain (Grant et al., 2011; Zeidan et al., 2011). The altered brain connectivity reflects that meditation brings steadier attention, better sensory processing, and reflective awareness to sensory experiences (Kilpatrick et al., 2011). What P22 shared earlier in this section is a real-world example for these. P38's (British male, 42, Vipassana/Tai chi) experience demonstrated a reduction in the emotional components as he said that with meditation he got "less worried" and just focusing on the pain made it "less of a problem". He also pointed out "change", the core of experience - "with Vipassana you learn with it [pain]; itis not going to be forever."

Just like the glass bottle-like item, pain is basically "pain-like" as it also depends on multiple factors. These contemplative practices can help one see pain as it is and let go of pain. From my own experience, I see how my relation with pain has changed,

and it is not emotional bypass. Of course, it does not happen in the blink of an eye. It is only when no more fuel is added to a fire, the fire can slowly die out.

Studying pain does not give me a pain-free life, but it helps me see pain more clearly. Recently I experienced a pain in my calf and back. They both hurt to a similar degree but my reaction to them was rather different. The latter was in the same area where I had had chronic pain in my mid-20s and was a similar sensation. As soon as the feeling of pain arose, memory of past experience cropped up. I felt worried that the pain-free state would be lost in a return to chronic suffering. I put a heat-patch on and did some exercises to try to change the painful state. As for the calf pain, because I had never experienced such pain, I did not do anything about it, and it did not bother me. My response was to give it some time and to see how it developed.

The calf pain did not cause suffering, but the desire to remain free of back pain did bring a second arrow. The uncertainty of not knowing how long they would last could also have led to suffering, but thanks to meditation practice, I was mindful of the sensation as well as the mind states. Thus, they stopped right there without proliferation. The practice does not cure the pain or guarantee a pain-free life, but it enables access to insights leading to the end of suffering. This painful experience to me was not something unpleasant to be rid of as before, rather, I took it as something to deepen my understanding of pain for this study. In the end, both pains changed and faded away.

III. The words and images

Everything in the unconscious seeks outward manifestation, and the personality too desires to evolve out of its unconscious conditions and to experience itself as a whole. I cannot employ the language of science to trace this process of growth in myself, for I cannot experience myself as a scientific problem.

C. G. Jung (1967, p. 17)

Jung could not experience himself as a scientific problem, neither could the participants. Despite the advancing technologies of our times, something of being human is beyond the recognition of science, such as "human innerness" (van Manen, 2017). Jung himself used painting to "translate the emotions into images" (Jung & Shamdasani, 2012, p. 3) and stated that "I speak in images. With nothing else can I express the words from the depths" (Jung & Shamdasani, 2012, p. 93). This field work collected "data" of words and images for investigation of experiences.

An art-based method is an attempt to capture one's perception and state of mind, manifest attitudes, and reflect the lived experience in a pure form in the sense that, as Merleau-Ponty claims, "art, especially painting, draws upon this fabric of brute meaning [...] in full innocence" (1964, p. 161). Producing an image is an embodied practice which the painter transforms their worlds into art by "lending his [or her] body to the world" and opening themselves to the world (p. 162). It is an event that makes feeling have a form and become visible, or in the case of pain "it gives visible existence to what profane vision believes to be invisible" (p. 166) and enables us to communicate what is hidden and ineffable. The participants' images say "something that cannot be uttered as well or completely in any other tongue" (Dewey, 1934, p. 106) and they are used to help investigate one's interior with the interpretation they give.

III.1 Unfolding experiences

This study is based on first-person interpretation, but an interesting observation on third-person interpretation during this project left me pondering. Using a photo editing software (Photo Editor), I merged images of pain experiences from three participants (P1, P19 and P28) to enter Swansea University's 2019 "Research as Art" competition (see Figure 24).

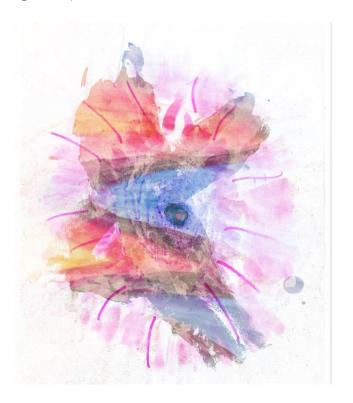


Figure 24 The piece created by merging three participants' images

During the exhibition, a viewer told me that he saw a dog with teeth as well as anxiety. Three of my friends also saw this image. Friend 1 said it was "a bird in flight and a whale swimming through a fabulous rainbow sunset". Friend 2 saw

a bird that can fly freely but at the moment is standing still; there is fire coming out from him; a big sun on his back; a little bird on top; he's very energetic and powerful and has wrinkles on his face.

She continued to interpret that the fire represents her courage to say no because she had just finished a project where there was a lot of restraint, and she was now ready to go and fly without limits. The little bird on top is also a part of her which is tender and trying to wake up. The sun on the back represents the energy from the people that she loves and who support her through difficulties. The wrinkles are seen as a symbol of growth after hard times and wisdom. She concluded, "I am the bird that is passionate, a bit angry, assertive and ready. I am also sweet and tender even though I have all this energy inside. It's like a balance." She found the interpretation of what she saw in the image helped re-centre and understand her inner states.

Friend 3 saw "a giant beak, like a pelican's beak, and a giant eyeball. It makes me feel calm and soft. A beautiful sunset." He continued,

I am holding onto things and not expressing them; saving them for later. The bird knows how to save for later and nourish oneself or meet one's need. I guess that's what I am doing, waiting for the right moment to nourish myself again. I am in a stage of transformation and waiting for the right moment to make a decision [...] everything has its moment and place.

They see what is inside them, and their own interpretations make themselves better understand their inner worlds. Borrowing Merleau-Ponty's words once again, "it is more accurate to say that I see according to it, or with it, than that I see it" (Merleau-Ponty, 1964, p. 164). Art is an experience, for the viewers as well as the makers. When I made this image, it was a spontaneous act and all viewers experienced something different from it. That moment is when the viewer and the viewed interact to produce an experience of discovery.

Let's see with the images and go back to what the makers of these three pieces said, as Jung insisted that images must be explained by the lived experience of the individual, without which everything can mean anything or nothing (Jung, 1990, p. 96).

Following are the three original pieces from these participants.





Figure 26 P19's painting



Figure 27 P28's clay painting

P1 (Irish British female, 54, Vipassana/Theravada Buddhist practice) was a GP and has practised meditation since she was a medical student more than twenty-five years ago, and has occasional "severely painful migraine". Reflecting her experience, the image (Figure 25) diverges from dark to light in a round shape, "like an observing eye looking

into the heart of pain which is dark". As she described it, in the centre there lies a red dot signifying the sharpness of pain, surrounded by a purple whirlpool which is like a storm. Moving outwards, it gets lighter and lighter, with the outer most circle painted white. She said, "pain may be negative, but [if] you step back, there is lightness and spaciousness."

The pain was very strong and "completely absorbing" which she could not do anything about "except feel it [...] be very still and just focus on what's happening". She would put herself in a room and meditate lying down — "it's wonderful then"; "I am really happy because then I can just be with the pain however long it lasts. It's not pleasant but it's a very interesting and intense experience."

You don't hate the pain? I asked. She said,

Not at all. I recognise it [...] usually because I am tired, stressful, something needs attention. I need to stop and pay attention and learn. I receive it with gratitude. It's like... now it's the time to go and lie down.

The way she experienced pain was with interest and spaciousness, rather than aversion and tension; with humility and patience, rather than control and agitation. Such a way was described by other meditators too. When pain is taken as a call or message from the body, rather than an enemy, one listens to it attentively. In her experience, "pain is an opportunity to examine and explore intense feeling and see what I can learn from it." But she would also look after it and see if it needs medical intervention. That is the middle way. Being with pain with equanimity and mindfulness is not a passive mode but a peaceful mode of wise response. However, without mindfulness training, she said, one tends to operate from the "programmed" mode to equate pain with unpleasantness and push it away, as with some of the examples shown earlier.

She also viewed the image as a flower as the "lotus represents wisdom", because she gained "the insight of awareness which is what's left behind." The other insights include change and selflessness which engender the sense of spaciousness.

After 25 years of meditation, I come to realise there is actually nobody here because the more I look inside and the more I seek a selfhood, the more [it is]

an impossible task. You can't find anything. Everything I observe is changing and goodness me, there is nothing solid here at all.

With this understanding, she experienced a space around the phenomena rising and passing for the experience to manifest with all the attention and time it needs. "And then there is a sense of whatever it is happening, it is welcomed." It is helpful to realise that because it enables a peaceful time and relation with pain.

To be at peace with pain does not necessarily take 25 years' practice. Other meditators with a shorter meditation history shared similar experiences. For example, P19's (Bangladeshi female, 39, Vipassana) response to lower back pain shows a degree of ease and peace:

it hurts, but it doesn't make me lose peace or have aversion towards it and want it to go away [...] it's giving me the opportunity to learn to be equanimous.

She viewed pain as "just another experience like joy and sorrow" and acknowledged the role of meditation in her pain experience which brought her the insight of awareness and change. "I am aware it's there, and it will go. This is what Vipassana practice has taught me [...] just letting it naturally manifest and go."

In her painting (Figure 26) she used red to represent the "physical sensation" with different tones indicating the variation in pain intensity, and blue for emotion, in a wave image signifying "change". The dark-grey area is the "blending of mind and body which can't be separated. Sometimes you don't know what it is, but you feel it in the body." It seems this is how she experienced awareness even though she did not have a name for it, with an implication of embodiment.

P28 (Spanish male, 48, Theravada Buddhist practice/pottery art making) believed that pain is a result of "pushing the body too hard". The interview was conducted while he was working at the pottery wheel and he also talked about the pain of failing to get the wanted result. He described it as "the anger of not having control" which he understood as "the frustration brought by expectation" and pointed out that it is part of life and can be used for growth — "it's a chance to learn about pain and yourself." His relation with pain also reveals a sense of ease with knowing it and accepting it but not owning it:

pain does not belong to anybody. It's an experience. It's a sensation. It's a moment of life and a part of life. You can't avoid it, just look for balance.

At the end of the discussion, I invited him to make a piece of art based on his pain experience. "Sure!" he said. Straight after he uttered this word, energetically he laid down what is on the paper (Figure 27) with his hand covered in clay. It was very spontaneous and straightforward. He said, "I don't want to express pain. And art is nothing. It's the interpretation that makes it art. Everything is art." The simple cross in the figure is a natural response that bears strength and freedom. Its robustness conveys his conviction that pain is to be learned from and a part of life. While the cross symbol has a multitude of meanings (Jung, 1990), this casual cross indicates his reluctance to express pain or even "ask for help when in pain" and signifies his view that art is nothing, and yet, everything.

Symbols convey subjective and living meanings (Edinger, 1972). There are natural symbols derived from the unconscious representing many variations and cultural symbols which are collective images developed through time and accepted by societies (Jung, 1990). In Jung's opinion, a symbol is "a term, a name, or even a picture" that has certain undertones besides the familiar and conventional meaning (Jung, 1990, p. 20).

Being spontaneous products, the images illuminate their inner space with their individual experience. They perhaps also illuminate what Jung calls collective unconscious, a part of the unconscious which is an indispensable part of life and is

much wider and richer than the conscious (Jung, 1990). Jung has a particular interest in mandalas which he thinks are the manifestation of collective unconscious (Jung, 1959) and suggests that circles are a symbol of the psyche ³⁵ which is part of nature that is undefinable (Jung, 1990, pp. 23, 249). When the psyche is stirred, the

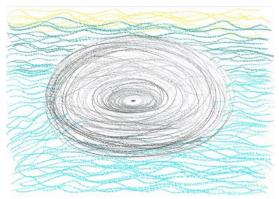


Figure 28 P7's drawing

³⁵ Psyche does not equal our consciousness and its contents according to Jung.

image may look like Figure 28, a drawing by P7 (German British female, 57, Buddhist) depicting an experience of feeling "complete desolation" long ago.

Circles can also be seen in other participants' images. Below are four images by meditation practitioners $_{\circ}$



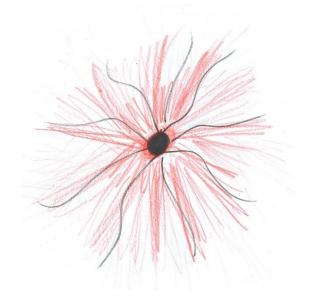


Figure 30 P38's image



Figure 31 P36's image

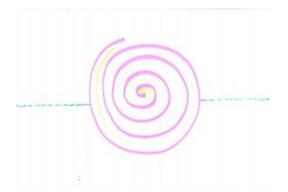


Figure 32 P18's image

P38 (British male, 42, Vipassana/Tai chi) drew an image (Figure 30) comparable to P1's. Although he was a novice meditator, he shared a calm manner and some perceptions with P1. Besides negation of pain ownership and recognition of change, he said his response to pain was to "focus on it rather than avoid it" thanks to the practices and that "pain tells you something you need to know." Being at peace with pain and taking action do not need to conflict as he stated, "they are just as they are. But I will actively change or fix the problem." He also indicated that meditation practice influenced his

outlook on life, that he became less worried about not being able to do things he enjoyed and aging.

He was very aware of the body and mainly talked about his image, based on sensations with detailed description. Like P1, his image also has a dark centre "very heavy and solid, sharp and dense", but moving outwards it gets lighter, diverging in all directions as pathways depicted as black lines and emanating sensations (in red). The sensations could change into a uniformed state, "less dense in the middle and it kind of spreads out, either same or having a centre to it. Underneath all, there is kind of subtle vibration (in light blue) which is hard to sense and can only be sensed when you are focused on it."

P36 (Welsh male, 43, Vipassana) experienced regular shoulder pain. He also mentioned his severe lower back pain many years ago, before he began practising meditation. He reflected on the experience back then,

I was suffering then. I felt pretty low and couldn't step back from the physical pain or didn't have the awareness that the mental and physical are closely linked [...] In my personality there was negativity, stiffness, not just in the physical. I was like I am in pain, I have to see somebody, take pain killers... It was a dominant feature of my day.

He would respond differently now with "tools like remaining equanimous, having the awareness with the understanding of change" -

I would take a step back, have a look at what's really going on and view the range of things in my life that would add to the make of that pain. Look at my mental and physical states [...] It's difficult to do but Vipassana is really helpful. It's really good to have time for some insight.

As he was engrossed in his finished painting (Figure 31), he said,

the spiral...that was interesting. It may be representing...not eternity but a long journey because it will come down to a point that it ends but I don't know... you can have an infinite spiral. You might not have an ending.

He may well be talking about something beyond pain with a painting of pain. He described the lighter bits (green and yellow) surrounding the red spiral as the easier times of pain. The surrounding of the spiral indicated that "pain cannot envelope all the good, but the lightness envelopes the pain". And it seems the drawing paper cannot envelope the experience either. When he said that the paper was not big

enough, what he was actually saying was awareness or consciousness cannot be confined.

P18 (Welsh female, 49, mindfulness, yoga, Christian contemplative) had had shoulder pain for a year at the time of the interview. In contrast to most other Christians in this study, she did not identify herself with pain and viewed pain with acceptance, as a "warning" and "part of being human or alive". "I hope I can use the pain in the most positive way I could in a sense, both trying to live with it and use it for a positive way", she said. In her drawing (Figure 32), a thin and a thick line representing different sensations are used to form the spiral. It looks very similar to P36's but her interpretation was different.

All of it together is the impact on the whole being. Blue lines here, I am not sure how to portray that bit but it is kind of what happens when I relax. When I meditate, that spiral just evens out or dissipate and the pain becomes less intense and calmer.

She stated that the pain would ease when she relaxed mindfully. With reference to the blue lines, by "relaxing mindfully" she could mean awareness or experience that contains pain and pleasure, much in line with what the other three (P1, P36, P38) depict. This parallelism may be brought about by meditation practice that led them to experience what Husserl calls "the region of pure consciousness" (Husserl, 2012) or in P1's words, "what's left behind". There is such a "space" where one can be standing with, not pushing away or suppressing, pain.

These images containing circles, seen alongside experience, exhibit a more unifying experience and in a way support the idea of humans as microcosms, which overlaps from ancient Greece to the far East. Circles and spirals are the way nature operates - they can be seen in: tree rings; ripples from a drop of water in a lake; galaxies; the way in which the young Jupiter spiralled in towards the sun, giving rise to human species. Circles also mean inclusion, union, wholeness and perfection. From a typical Chinese dining table to Christ's halo, circles are seen across time and cultures.



Figure 33 A spiral galaxy. Messier 81, or M81. Image downloaded from NASA



Figure 34 Enso: Zen Circles of Enlightenment. Downloaded https://www.stlawu.edu/news/art-gallery-featureenso-zen-circles-enlightenment



from www. operationshooting88/123RF



Figure 35 A typical Chinese dinner table. Downloaded Figure 36 A slice of carrot in circle. Photo by the author of this thesis.

P11 (Chinese female, 58, Christian praying) was the only other practising Christian besides P18 that did not drew a "me", stating that pain was not part of her but "something intruding into my life and something to be got rid of". Her drawing also



Figure 37 P11's drawing

has circles but means something different to the former ones - it radiates with a red dot to represent the centre of the pain; the orange part "the impact on physical level" such as mobility, and the darker yellow the "impact on social and work life". The lighter yellow on the outer most edge symbolises "everything else such as the change of my outlook towards pain, chronic problems and human suffering". She said that pain taught her to be humbler, regarding her own vulnerability, and accept "there is a higher providence". It also gave rise to empathy for people with chronic problems, even though the pain for her was something unwelcomed affecting many facets of her life, especially family and work life which she mentioned multiple times. This shows the importance of the participants' own account as without them the images can be anything or nothing, as mentioned before.

The other participants with Christian backgrounds (P8, P9, P29, P30, P31) and P37 with autism, Asperger's syndrome and PTSD all drew a "me".



Figure 38 P29's drawing "prostrated in prayer"

Figure 39 P30's drawing. For his experience see Culture section

Figure 40 P31's "unhappy face"

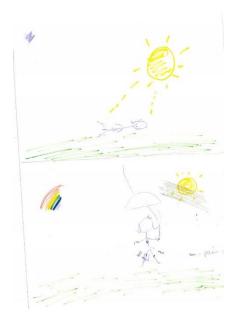


Figure 41 P8's drawing



Figure 42 P37's drawing

Using their bodies or even just their heads to represent the pain experience implies a sense of self that is central to the experience and reveals their perceptions. The head, the uppermost part of the body, is often disconnected from the rest of the body and is the representation of the mind or intellect in recent development in science. P30 and P31's drawing of heads may particularly suggest disembodied experiences and without the body as an anchor, one can easily be centred in the head. The sad faces stress the unpleasantness of the experience bound by physical and mental responses - as P31 said "that's my face when I have pain." P29's (British Male, 68) drawing (Figure 38) can be seen with his account "God is experiencing our pain. He's with us in it. That helps us to go through it." Talking about their belief in God and indicating suffering³⁶ were common features in talking about their different pain experiences.

Besides that, they all acknowledged the ownership of pain which is associated with self and suffering (see section II). For example, P8 said, "it's part of me, what I am, how I cope with it. It affects how I am to other people — I could be miserable and grumpy." Her drawing (Figure 41) symbolises an easy day with pain (top) - "the pain is there but it's easy to ignore"; and a more challenging day (bottom) indicated by the clouds shading the sun. But there is an umbrella which symbolises her way of coping such as prayer, reading the Bible, friends, and these give rise to a rainbow — hope.

The resemblance of the drawings from Christian participants raises a question around the effect religion has on them. It would be interesting to investigate this with further interviews, but the hypothesis is that it may have come from the Christian dualistic understanding of the soul and body: the soul is independent of the body.

P37 talked about the pain of social rejection due to his conditions, and the effect on the body, "[when] they reject me I feel the pain physically in my heart, stomach, solar plexus and like razor blades or chains run up my arms and legs". He was well aware of the body and mentioned that he felt "buoyant" when doing yoga.

His drawing (Figure 42) is "Three Instances of My Pain" in which No.1 is an ideal where his condition is visible (represented as splint on his arm) and people would be kind to

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³⁶ P8 said, it was not an expression that she would use but she also said "you do suffer with pain".

him; No.2 is a day that "I am giving out signals of danger that I am not aware of, when people look at me in shock or fear"; No.3 is him with different "parts" of him and carrying bags of pain -

Part of me says we are angry being born this way. We wish you weren't here. [...] The other voice says, this is really sad [...] It's like swimming through treacle [...] There is part of me, however small, like a spark. I am grateful.

He used "we" which seems to suggest his recognition of the different "parts" coexisting to create an experience of being someone. Interestingly, he said "I have a part in it [pain]" referring to the ownership of pain. He had mixed feelings about pain – neutral because he believed in reincarnation and this was what he "signed up for"; negative because of the difficulties interacting with others; and positive as pain was a teacher to remind him to "work harder" to minimise the threat he might pose on others when triggered, and it made him read a lot and to be reflective. Reflection certainly helped and he expressed gratitude for his conditions. He also reflected on practising yoga which helped him relieve anxiety, confusion and "stuckness", along with meditation. He already had a good degree of awareness. From our interaction, I could feel that he was quite sensitive in that he could sense and see a lot.

Some others used personification or objectification to depict the experience of pain. Just as people call menstruation "aunty", which has a mix of emotions – it is held dear as an aunty, yet this aunty can be annoying and troublesome, and if the aunty stops coming to visit regularly, people start to get worried - a few participants personified their experiences of pain with a mix of perceptions. For example, P9 drew a "sore shadow" following her (see II.2.1); P40 (Welsh male, 47, tai chi/qigong, distance swimming) personified his residual back pain from an accident as a "water dragon" (Figure 43) depicted in a spiral which was "less friendly and forgiving"; and his knee pain a "fire dragon" (Figure 44) which was "more forgiving and docile".

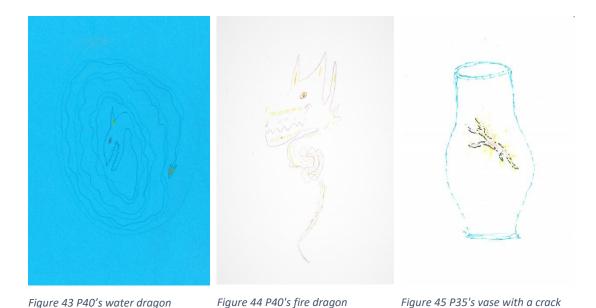
His way to work with the "water dragon" was to "lie flat or get in water when she demands" - it was a she – and the "fire dragon" was a male and more malleable which he could work with in various ways. He particularly mentioned that they "liked" different kinds of tai chi and ways of being treated. Giving them personalities and treating them as "old friends" were how he related to and dealt with the pain. To him,

pain meant "life" and that he had "limitations". He indicated that relating to them in such a way was influenced by studying Chinese martial art, and also the insights gained from "the sense of impending doom" during the accident.

These images represent his intimate inner world, as he said,

if I push myself too hard my dragons roar at me. Then they take on the personas and I have to govern my lifestyle, so I don't upset my dragons. I haven't told anyone about this.

His way of personifying the pains manifests a "friendly" relationship with pain and his constantly being aware greatly helped in this relationship.



P35 (British male, 66, tai chi, mindfulness) drew a vase with a crack where light comes out as a sense of revealing something to him (for his experience see II.2.1). He believed that if there is pain it does not mean he is broken, which resonates with P42's (Chinese male, 28, tennis, tai chi) view. He considered humans as trees which could withstand damages from various sources, such as the weather, human activities and insects but would after all survive and recover, as depicted in (Figure 46). P25 (Chinese female, 30, occasional mindfulness) also used a tree to symbolise her experience of neck and shoulder pain (Figure 47), and through interpreting her own drawing she realised that the pain could be due to her busy thinking mind.

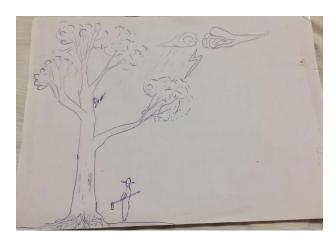






Figure 47 P25's drawing

Humans and trees share much in common: upright and grounded with feet or roots; tree sap and resin are metaphorised as tears which come when humans are hurt, which is well fitting because of their healing effects. And myths often show humans transforming into trees (Ronnberg & Martin, 2010) or trees having human characters. In tai chi and qigong, there is a practice called "standing like a tree" (站樁) and in Chinese the word for "cultivate a person" is 樹人- literally, tree a person.

Personifying pain is not only a way to represent pain but also for some a way to manage. In Jung's view, by personifying the contents of the unconscious, one brings them in contact with the conscious and thus strip them of their power (Jung & Jaffé, 1967, p. 229).

Like the red on the tree and in the air signifying pain in P25's drawing, many participants tend to use red for bodily painful sensations, such as burning. Red symbolises things such as life, energy, warning, sexual passion, aggression, and celebration and happiness in Chinese societies. The meaning of red is usually associated with experience of blood and fire in the West and blood means life in primitive thinking (Ronnberg & Martin, 2010). In ancient China if two people unrelated by birth wished to become sworn brothers or sisters, they would perform a ritual where they would mix drops of their blood in a bowl of wine and then drink it, symbolising the joining of their lives. Blue is also common in participants' images, either to represent their mental state or as a spontaneous act. Blue, like red, has

cultural associations, for example, Blues music which originated from African

American culture and is a mix of sadness and humour. Blue can also mean despair and sadness; "the spiritual and mental as contrasted with the emotional and physical and with detachment from the earthly"; "a state of reflection and detachment" and depth (Ronnberg & Martin, 2010, pp. 650, 652) which corresponds to P18 (Figure 32) and P5's blue lines (Figure 48). She reflected on her lifethreatening incident, "everything will change" and commented on her drawing, "it's like a river, flowing without stopping."



Figure 48 P5's drawing

Some of the images that used blue are associated with despair and sadness. For example, P20 described her painting (Figure 49) as such: "the whole thing is energetically full of frustration of emotional pain as well as the physical. I can feel this very much." P4 did not say a lot about her image (Figure 50) but that "it comes from that place, being sick. Pertinent to that experience." She had to tear the drawing, "like broken glass", and then stitch it. I offered her glue but she refused it and insisted on pins which may indicate the experience of ectopic pregnancy being "jagged" and left her a sharp and deep mark.



Figure 49 P20's painting

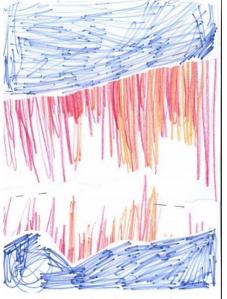
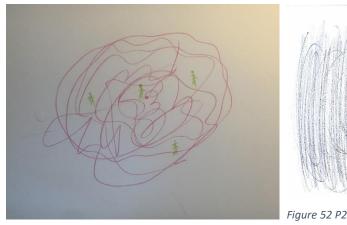


Figure 50 P4's image with pins

P53 (Chinese female, 28) used red to signify a tense and messy state after breaking up with her ex-boyfriend, when she experienced a sense of nihility, feeling lost, panic, and frustrated. Her drawing (Figure 51) depicts "the little person [herself] hopping around on one foot with the feeling of... incompleteness, trying to find an exit", which is comparable to P2's (Chinese female, 31) drawing (Figure 52) of the painful time with her ex-husband: "dark, really dark. Wind cannot blow it away, and sun cannot shine through. I am that little person in the middle." Both described a deconstruction of views and a process of transformation or growth with acceptance. P2 said, "it was choiceless to have met the pain experience. It's karma [...] it is a process of transformation. It brought me back to reality from fantasy." They both drew a little person, but neither admitted ownership of pain (see II.2.1 Culture).



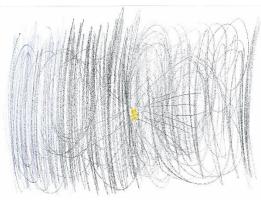


Figure 52 P2's drawing

Figure 51 P53's drawing

On the one hand the little person contrasts with the "big pain", and on the other is quite culturally representative. The Chinese participants' images often involve either figures of little person, such as the above, or symbols of nature, such as scenery or trees. Closely linked with traditional Chinese thought, phenomenology and existentialism, traditional Chinese landscape painting usually depicts small human figures against the immensity of nature, emphasising the experience of "being in nature" which contrasts with "seeing nature" in Western realist landscape paintings (Suk-mun Law, 2011).

Fan Kuan's Travelers Amid Mountains and Streams (Figure 53) is perceived as the most representative piece of Chinese landscape painting. It depicts a magnificent mountain occupying the central space as a backdrop, rocks, trees, waterfall, streams, a temple,

a path, mules and travellers (tiny in the bottom right). According to historians, Fan Kuan was a hermit and a great man with a big heart, and this seven-feet tall painting seems to reveal that and the idea of "one with nature". It expresses a message that humans are merely transient travellers passing through vast nature.



Figure 53 Travellers Amid Mountains and Streams Fan Kuan (c. 950 - 1032) © National Palace Museum, Taipei



Figure 54 Caspar David Friedrich, THE WANDERER ABOVE THE SEA OF FOG (1818). Image downloaded from https://www.artsy.net/article/artsy-editorial-unraveling-mysteries-caspar-david-friedrichs-wanderer.

The figure and ground in the paintings of Fan Kuan and Caspar David Friedrich contrast, with the latter having a man in the foreground occupying the central space. These paintings sseem to convey different meanings: humans as transient travellers and humans as nature conquerors and contemplators. As Bouman claims, "the figure-ground relation is the most elementary and fundamental division in every aspect of life" (Elkins, 1998, p. 96) and it could be applied to pain experience. "I am in pain" and "there is pain" are two divergent experiences. It can also apply to the premise that pain needs to be viewed against individual background.

The distinction of Chinese art is that they "abstracted man and nature into a single form or symbol, then used symbols as illustration, decoration and even in communication" (Smith, 1973, p. 8) rather than capturing their subjects realistically or surreally. Xiuzhen Tu (undatable, Figure 55), "the chart of the cultivation of truth", maps the human body in detail with different animals symbolising the organs, and text descriptions given in the context of spiritual practice. Using symbols to depict organs should not be taken as a lack of anatomical knowledge, as ancient anatomy can be dated back to the Han dynasty (206 BC-220 AD), rather, human and nature are depicted in one symbol. They do not depict a tree or a fish or even a mood. "They make a statement" (Smith, 1973, p. 16).



Figure 55 Xiuzhen Tu

Very few traditional Chinese paintings could be found depicting agony through human figures, as if they did not care to paint human suffering, perhaps due to the recognition that suffering is a mundane experience, and perhaps they contemplate more on a

Figure 56 The Plum Blossoms

Truth that can be pursued beyond life and death.

Figure 56 is a painting by Bada Shanren (八 大山人 1626–1705), born as Zhu Da (朱耷), possibly having PTSD or suffering from depression in today's understanding. Often noted as eccentric with an enigmatic life, he was a descendant of the Ming dynasty Prince of Ning. The collapse of the Ming dynasty and the death of his father brought significant psychological turbulence on him. He found political and spiritual refuge as a monk in a Buddhist mountain monastery for more than 30 years. In this painting, a few

plum blossoms grow on a dead and hollow tree trunk whose roots strongly grip the ground. It is commonly viewed as representing anguish and desolation. However, as plum blossom in Chinese aesthetics symbolises the character of strength, unyielding, purity and grace, it is as if he was making a statement that the pain did not destroy him but made him tougher.

Fish and birds were often his chosen subjects, usually having distinct rolling eyes (e.g. Figure 57 and Figure 58). Birds are a symbol of freedom as they can travel through sky, earth and underwater, representing a connection between heaven and earth, the conscious and the unconscious (Ronnberg & Martin, 2010). However, in Bada's paintings, such symbols of freedom never appear in the sky, but instead, birds grip tight to the earth, symbolising a lack of freedom. It may indicate his frustration with the Qing (Manchu) destroying Han culture, while he could do nothing to help restore the Ming. In Figure 58, the disproportionate claw and the open beak raised to the sky seem to depict ululating of pain with frustration that the world does not understand

and of being helpless. The fish, too, with a rolling eye, appears to be static and lifeless. They may be showing disdain, discontentment, unyieldingness or withdrawal from the world. Perhaps he was rolling his eyes at the world.



Figure 57 The Fish



Figure 58 The ululating bird

In modern times, the way Chinese artist Ding Wei represents pain resembles that of the ancient ones, and perhaps he is also influenced by the West in his style and technique. Ding Wei suffered from AS (ankylosing spondylitis) and approached pain with acceptance and ease. He did not seem to have an overt expression of his pain, but instead used painting to "solve his problems" and "look for answers for the ultimate question". When asked "the image looks very smooth and full of strength, but you actually created them while in pain?" He said, "pain and suffering are the environment that makes you but not the reason of failure. The key is the passion for life and art." ³⁷



Figure 59 Cannot find eternal happiness. Ding Wei 2013 ©

Mexican artist Frida Kahlo (1907-1954) is known for her self-portraits and her experience of physical and emotional pain which are reflected in her painting realistically and surrealistically. Both physical and emotional pain are evident in her works, which also convey a strong sense of self. Figure 60 depicts the emotions and medical conditions she experienced after an accident, and her perception of her body image. While she actively exposed her pain to the world in an art form, she never stopped seeking medical interventions and lived on and became addicted to opioids. Devastated by mental stress and disfigurement of her body, she attempted suicide several times (Antelo, 2013). Her paintings and experience are a manifestation of how the sense of self relates to suffering.

³⁷ Interview with Ding Wei in Chinese. https://news.artron.net/20150208/n712706.html

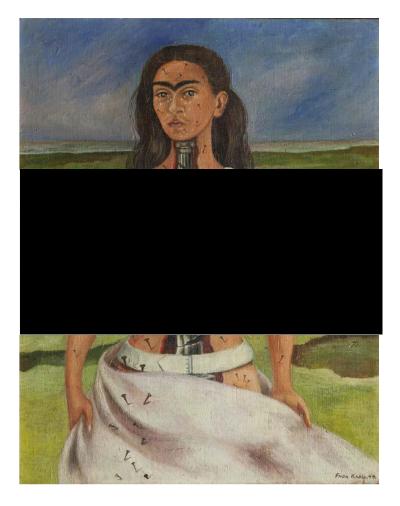


Figure 60 Broken Column 1944 © Banco de México Fiduciario en el Fideicomiso relativo a los Museos Diego Rivera y Frida Kahlo

Images enable the invisible to become visible, and with interpretations they have shown differences in perceptions and experiences where one can choose to relate to pain in different ways. They have also shown similarities, some of which disclose human universals and are thought-provoking. In clinical settings the unseen becomes observable through graphical methods such as charts for temperature and heart rate (Cherry, 2005). However, for pain, a subjective experience, a pain rating scale (Figure 61) as a visual method may unfortunately only make sense to the given person, not the doctor, nor anyone else.



Figure 61 pain rating scale

III.2 Transformation

When the visual methods are used properly, they do not work only as a reflection of the pain experience, but also can arouse insights and transformation. For example, P44 (Thai female, 24, meditation and chanting) and P45 (Chinese female, 27, art making) pointed out that making the images allowed them to revisit and see the pain experience from a different perspective, which enabled transformation.

P44 said,

the pain of fear can be transformed through drawing this picture. At that moment [of painting], I think the anxiety was still inside me, but now I can express it into the drawing and colour. And it will be better and better soon!

P45 said,

I feel closer to that experience making this piece, but I can also look at it from a distance. The pattern on the paper is different to the texture on the rocks that I associated with the tonsillitis. It's a form of transformation. This is pain, but also a gentle reaction towards pain. That experience has been held lightly.

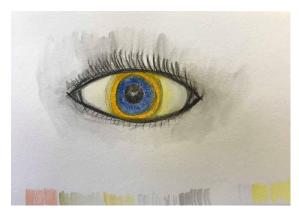


Figure 62 P44's image: The Eye of Fear. "When I looked into her (the woman who threatened her) eyes, I could see fear."



Figure 63 P45's art piece: graphite rubbing on the rocks she picked after an episode of tonsillitis. That was when she found all the patterns on the rocks looked like tonsillitis.

Tu Weiming notes that transforming a negative state of being into creative energy is a good way to deal with pain and suffering, with which positive psychological development and better society would be made possible (Coakley & Shelemay, 2007). Jung acknowledges that "the unconscious is a process and that the psyche is transformed or developed by the relationship of the ego to the contents of the unconscious" (Jung & Jaffé, 1967, p. 256). He calls the transformation processes the process of individuation which is the core of his psychology and could be understood as the path to realisation.

It is also a transformation from separation to wholeness. While the circle is a symbol of the psyche, the square is often used for matter, and the way circle and square appear in modern art points to the split of mind and matter/body, as Aniela Jaffé points out (Jung, 1990). The drawing by P39 (Welsh male, 51, agnostic with non-conformist Welsh chapel upbringing, practises reflection) consists of circles and squares representing transformation (Figure 64).

In the bottom left of the image sits a dark ball within a square, "a small thing that is enclosed in something, just sitting there" which "feels it has been there for too long". The top right holds a big circle which could mean consciousness, awareness or life. As he said, "the little ball of pain moving away to a clear blue horizon and that's within this circle". The image contains it all. "There is a process you have to go through, from pain/suffering to no pain/suffering." The upward arrow signifies how he viewed pain: something that can be alleviated and a catalyst for change. The upward trajectory symbolises that things will get better.

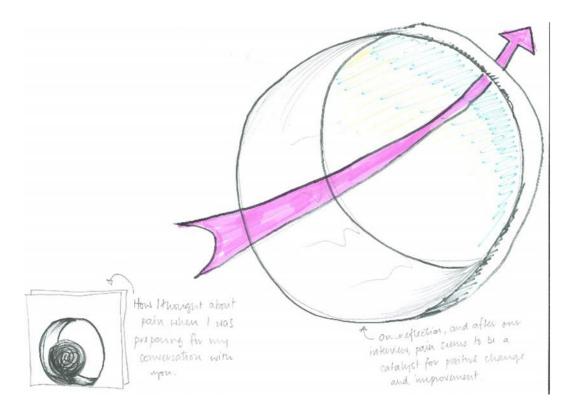


Figure 64 P39's image

Note: on the bottom left he wrote: How I thought about pain when I was preparing for my conversation with you. Top right: On reflection and after our interview, pain seems to be a catalyst for positive change and improvement.

If seen from a Buddhist perspective, e.g., the *Four Noble Truths*, the small dark ball of pain that "has been there for too long" is the recognition of suffering (dukkha) that we are subject to. The big circle is the *citta*, the heart/mind, or consciousness that is bigger than our small selves and as we move towards this wholeness or pure awareness we realise the cessation of suffering (nirodha). The arrow is the way out of suffering (magga), which is the *Eightfold Path* (often symbolised by the Wheel of Dhamma, see Figure 65). Bhikkhu Bodhi writes, "the search for a spiritual path is born out of suffering. It does not start with lights and ecstasy, but with the hard tacks of



pain, disappointment, and confusion." (Bodhi, 1994, p. 1). If one wants to throw away this ball called suffering, first, one needs to grab it – that is to know it and understand it.

Figure 65 The Wheel of Dhamma. A circle too.

Suffering is the common translation of the term *dukkha*³⁸ in Buddhist philosophy and it encompasses all possible kinds of suffering, not separating physical or psychological. The second noble truth is about the cause of suffering: craving or desire, *tanha*. There are three aspects of desire: 1) wanting something to please the senses: we see a lovely piece of cake but the person in front of us in the queue gets it - and then we quietly murmur "damn it"; 2) wanting to become: there is so much work to do and we want to become free of work, and then we end up getting stressed while there is still work to be done; 3) wanting to get rid of: when we are in pain, the automatic response is to get rid of it and if we cannot, we resent it and become frustrated.

To understand suffering means to truly accept and embrace it, instead of reacting, following our habits and perceptions. The cessation of suffering can only be realised through this acceptance and recognition of suffering. Then let go of it and transformation can happen. It is easier to understand these words than to live them because it involves enduring something that one thinks they cannot bear (Sumedho, 2018). Nevertheless, what we think we cannot bear is still a perception and it can be changed.

Modern science has shown us the existence of neuroplasticity, and the use of mirror therapy and moto imagery³⁹ in rehabilitation showed us the role of mental processes in healing (Frank, 2016). It is also recognised that the nociceptor which is essential to pain generating functions is of high plasticity (Woolf & Ma, 2007). These evidence do not only tell us that our whole body-mind systems are highly flexible but also that these systems can be educated and changed. This is bioplasticity - through changing the way we think and act one can change the pain experience - "a reason to be hopeful" (Butler, 2015).

More recently, studies have shown how changes in physiological cycles such as respiration may influence emotion, and the researchers even made a wearable device that has a calming effect on the anticipation of public speech by producing rhythmic

³⁸ Sometimes translated as pain or unsatifactoriness

³⁹ Mo

³⁹ Motor imagery is a cognitive process in which a subject imagines that he/she performs a movement without actually performing the movement and without even tensing the muscles. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2797860/

tactile vibration to the wrist (Ruben et al., 2017). This may sound familiar to meditators. The simple technique of focusing on the breath in meditation practice is not just an exercise that has a calming effect but a bridge connecting body and mind. The mechanism underlying the way they interact and connect may not be clear, but what is clear is that they do intertwine and affect each other. Embodied contemplative practices may look like mind workouts at first, but they are in fact a helpful way that can make a difference in experience and lead us to realise transformation.

The transformation brings about rapprochement with pain and the end of suffering. Pain is experienced in a different way, a way with understanding and acceptance, and then it can transform into empathy and compassion for others.

Pain is learned and can be relearned. The conditioning can be undone.

Conclusion

To understand pain as a subjective experience, this study unfolded the picture by looking at how pain has been viewed across time and space with a particular interest on the mind-body issue. Besides mind-body dualism, other problematic dualisms (e.g., good and bad, self and other) dominate the experience of pain. Pain is a multifaceted experience that is modulated by contributions from multiple domains including cognitive, emotional, and sociocultural. Perception is a determinant of lived experience and through the lens of neuroscience, psychology and Buddhist philosophy we see that perception, as predictions or habits based on what we have learned, influences our experience moment by moment. Pain is learned and often bears a taken-for-granted undertone of negativity.

This study investigated the nature of pain experience and subverted this conceptualisation of pain by exploring the real world lived experience of pain with interviews and a participatory visual method, i.e., image making, which provided first-hand data to show what the diverse experiences were like for the participants with different background conditioning. It enabled the ineffable to be heard, inner worlds to be seen and demonstrated that there are many possible relations with pain.

Given the broadness of the topic, discussion was placed around the influence of culture and contemplative practices. It could be observed that the participants' behaviour and perception did have a cultural implication, e.g., Chinese and other Asians tended not to use painkillers, which was also reported among Westerner contemplative practitioners. Another similarity in the above groups was the negation of pain ownership which usually entailed a more friendly relation with pain. Among Christian participants, the themes of suffering and redemption, union with God, and coping with pain through religious faith were commonly brought up. Religious faith seemed to help in coping with pain but not necessarily in transforming their experiences. Special attention was given to contemplative practices as they play an important role in affecting the autonomic reactivity and changing habitualised perceptions to enable a different experience beyond self-construal and dualism. Participants' first-person accounts and images seem to show that contemplative practices can unwind the habit cycle and help realise transformation regardless of

one's background, but whether insights (e.g., self-construal shift) arise seems critical to transformation. A future longitudinal study with art-based phenomenological approaches and first-person interpretation would be useful in further investigating and understanding this effect.

Individual differences in pain as a complex multifaceted experience were confirmed, and surprising and intriguing similarities in the images were observed among: a) meditation practitioners; b) Christians. Most of the Christians' drawings contained a figure of a body or face, which seems to reflect the cultural aspect, especially the dualistic view on body and soul. The meditation practitioners' images often involved circles or spirals, which, combined with their own accounts, demonstrated a more holistic and spacious experience of pain. They may be seen as a symbol of the domain of pure awareness where language or the thinking mind cannot reach. This unconditioned quality is a powerful gift within humans that can bring about change. Contemplative practices such as Mindfulness and Vipassana are some of the means available to help us rediscover this quality. They are not just tools to help us cope or even to numb ourselves, but training for the heart. When pain arises, we can be aware of the body (e.g., the interoceptive processes), the whole storytelling, and whatever is happening, without falling into old habits or reactive programming, and then thanks to our mind-body system's ability to learn and relearn, transformation can happen.

To conclude with a quote:

We shall not cease from exploration and the end of all our exploring will be to arrive where we started and know the place for the first time.

-T.S. Eliot

Afterword

This section is a bit of record of this research, a human phenomenological experience. Perhaps my next project can be "research on research as human experience".

My supervisors have been saying "this is like five PhDs and covering many disciplines. Very ambitious." It was not deliberately made complex. Human experience *is* complex. And perhaps "disciplines" are not necessary from the beginning. Nature has no borders, and we are nature.

It has been a deep learning experience for me, not just the knowledge but insights of humans and nature. I learned patience with myself and others, how to listen with compassion and be an ethical researcher. It has been a real practice.

I experienced all that I wrote. There was pain experienced in the course of the project: various injuries and unexplained bodily pain and pain of frustration when I was stuck or thoughts were as messy as the wires under the desk. But just to be aware of it and see it change was part of the experience. Pain has allowed so many opportunities (direct experience) for me to really learn and taught me that pain is indeed a teacher.

It was nice to see that this was also a learning experience for the participants. To some of them the interviews were a kind of discovery and therapy – there were responses such as "oh my god this is so interesting", "I never thought of that before", "how I thought about pain has changed", "I know myself better" and "I am glad that someone wants to listen to this kind of thing". I am glad too.

Ethics was a concern for this project and I was reminded by my supervisors from the beginning that I was not a therapist. On a couple of occasions where participants started to cry as they spoke of their experiences, initially I felt what I could do was limited. But I soon realised that one does not always need to *do* something; when they tried to empty their hearts, simply being there to let them be heard and offering a warm hug as a human being were therapy.

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Appendices

1. Participants' information

Participant	Age	Gender	Cultural Identity	Contemplative practice or spiritual background
0	31	Female	Chinese	Vipassana, tai chi daily for 6
				years; first got in touch with
				Buddhist meditation 9 years ago
1	54	Female	Irish British	Vipassana for over 25 years, was
				Catholic now a Buddhist nun
2	31	Female	Chinese	None/respect mother nature
3	42	Female	Chinese	None
4	62	Female	British	Atheist but spiritual, practices
				grounding technique and
				Shamanism
5	46	Female	Malaysian	Mindfulness/Vipassana,
			Chinese	Buddhist
6	66	Female	British	Christian upbringing, now
				Buddhist
7	57	Female	German/British	Buddhist
8	74	Female	English	Christian
9	42	Female	British/Irish	Christian (Brethren) upbringing
10	21	Female	Italian	Baptised Christian but "far from
				it for a few years"
11	58	Female	Chinese	Christian

Participant	Age	Gender	Cultural	Contemplative practice or	
12	r r	Female	Identity Chinese	spiritual background	
	55 26	Female		None Once a week years	
13			British	Once a week yoga	
14	47	Female	British	Occasional meditation to reduce stress	
15	49	Female	British	Yoga, guided meditation using an App, writing	
16	28	Female	Taiwanese, 12 years in the UK	Grew up in non-practicing Buddhist family	
17	27	Genderless	German with Turkish parents	Samatha meditation, mindful walking	
18	49	Female	Welsh	Mindfulness, Christian contemplative, yoga	
19	39	Female	Bangladeshi	Vipassana, yoga	
20	75	Female	English	Creativity, yoga, Reiki, Tibetan practice (20mins every morning for 25yrs), sitting meditation	
21	59	Female	Welsh with Irish/French Welsh parents	(since 49y) Catholic upbringing, Visualisation, art making, hypnotherapy	
22	42	Female	Puerto Rican	Vipassana, yoga	
23	22	Female	Chinese	None	
24	21	Female	British	Agnostic	
25	30	Female	Chinese	Occasional mindfulness practice	
26	24	Neutral	Chinese/human	None	
27	63	Female	British	Mindfulness, Five Tibetan Rites	
28	48	Male	Spanish	Buddhist (Vipassana) meditation	
29	68	Male	British	Christian (Baptist minister)	
30	62	Male	Persian British	Christian	
31	58	Male	British Chinese	Christian	
32	30	Male	American	Buddhist	
33	43	Male	Balkan/Greek	Orthodox Christian/music making	
34	46	Male	British	None	
35	66	Male	British	Tai chi, mindfulness	
36	43	Male	Welsh	Vipassana, yoga	
37	49	Male	European	Yoga, meditation to relieve anxiety, confusion and stuckness (PTSD and other conditions)	

Participant	Age	Gender	Cultural Identity	Contemplative practice or spiritual background
38	42	Male	British/Human	Vipassana, tai chi/qigong, yoga
39	51	Male	Welsh	Conformist Welsh chapel
	0_	Water		upbringing, practices reflection
40	47	Male	Welsh world	Tai chi/qigong, distance
			citizen	swimming for 20+ years
41	62	Male	Chinese	None
42	28	Male	Chinese	None
43	32	Male	Chinese	None
44	24	Female	Thai	Buddhist meditation and
				chanting for 9 years, studying
				Buddhism since 16
45	27	Female	Chinese world	Art making for 8 years, yoga and
			citizen	tai chi for 3 years
46	56	Female	White British	Praying daily
47	53	Female	White Welsh	Yoga, meditation,
				psychotherapy, arts on and off
48	36	Male	Global human	Meditation and self-enquiry,
			being,	regularly
			European,	
			Welsh	
49	51	Female	White British	Mindfulness/meditation for
				4years, occasional yoga
50	38	Female	Asian	Mindfulness and yoga 1-2 times
				per week for over 1 year
51	49	Female	British	Relaxation, yoga, mindfulness
52	39	Female	White	None
			American	
53	28	Female	Chinese	None

^{*}Red colour numbers indicate remotely conducted interviews

2. Ethical Approval Form

COLLEGE OF ARTS AND HUMANITIES, SWANSEA UNIVERSITY

LIGHT-TOUCH ETHICAL REVIEW FORM

To be completed for all research involving human subjects or datasets

Name of PI or Student	Huicong Luo
Supervisors*	Dr Brigid Haines, Dr Federico Lopez-Terra
Date Submitted	25/04/2018
Title of Project	Artistic Anatomy of Pain: Perception Influenced by Culture and Belief
Name of Funder / Sponsor*	
Finance Code / Reference*	
Duration of Project	2 years

^{*} Complete if appropriate

Risk evaluation: Does the proposed research involve any of the follow?

- ✓ Tick those boxes for which the answer is YES
- X Cross those boxes for which the answer is NO
- ✗ Will the study involve recruitment of patients or staff through the NHS or the use of NHS data or premises and/or equipment? If this is the case, the project must be reviewed by the NHS NRES. (http://www.hra.nhs.uk/research-community/before-you-apply/determine-whether-your-study-is-research/
- ✗ Does the study involve participants aged 16 or over who are unable to give informed consent? (e.g. people with learning disabilities: see Mental Capacity Act 2005. All research that falls under the auspices of the Act <u>must</u> be reviewed by the NHS NRES.)
- Does the research involve other vulnerable groups: children, those with cognitive impairment or in unequal relationships? (e.g. your own students). This <u>may</u> require review by the NHS NRES.
- Will the study require the co-operation of a gatekeeper for initial access to the groups or individuals to be recruited? (e.g. students at school, members of self-help group or residents of nursing home?)
- Will it be necessary for participants to take part in the study without their knowledge and consent at the time? (e.g. covert observation of people in nonpublic places)
- ✗ Will the study discuss sensitive topics? (e.g. sexual activity or drug use)
- X Are drugs, placebos or other substances (e.g. foods or vitamins) to be administered to study participants, or will the study involve invasive, intrusive or potentially harmful procedures of any kind? (If any substance is to be administered, this <u>may</u> fall under the auspices of the Medicines for Human Use (Clinical Trials) Regulations 2004, and require review by the NHS NRES.)

If the project involves **none of the above**, complete the **Declaration**, and send this form with a **copy of the proposal** to the <u>Research Hub Manager</u>. Research may only commence once approval has been given.

Declaration: The project will be conducted in compliance with the ethical policy of the University and the College. This includes securing informed consent from participants, minimizing the potential for harm, and compliance with dataprotection obligations. Any significant change in the purpose, design or conduct of the research will be reported to the Chair of the COAH-REC, and, if appropriate, a new application for ethical approval will be made.

Signature of PI or Student	Boca
Signature of first supervisor (if appropriate)	Garled Ai
Decision of COAH-REC	Asproved
Signature of COAH-REC Chair	Rouse Morkell
Date	22 pune 2014.
COAH-REC Reference number	
(office use only)	

3. Participant Information Sheet

Research participant information sheet Swansea University

Age:	Gender:
Cultural background/National identity:	
Contemplative practices: Yes / No If Yes, please give details (length of time and frequency of practice):	

- This interview is part of my research which aims to enrich the understanding of pain experience and investigate the influence of contemplative practices and culture on pain perception and therefore, the experience of pain. Because pain renders language ineffective, this interview will include image making.
- We will have a discussion on a few questions, and you will be asked to produce an
 image with the materials provided. I am interested in how you see the pain
 experience, not your drawing ability. The image that you produce may be shown on
 the thesis and research related activities and will be kept safely for the duration of
 the project. If it is needed for other uses, you will be informed.
- What I learn from the discussions will enable me to obtain anecdotal evidence for the aim of the research.
- All feedback is welcome. It will help even you do not have an answer.
- It is important to be honest about your answers, but you do not have to say anything that makes you feel uncomfortable. If you wish, I can leave you alone in the room when you make the image.
- Feel free to ask questions or have a break during the interview.
- An audio recording of our discussion will be made because I do not want to miss a thing that you say. The recordings will be deleted after the project is finished.
- Your responses will be kept strictly confidential.

• Your help is much appreciated. Thank you very much.



Research Participant Consent Form

an	Title of Research Project: Artistic Anatomy of Suffering: The Influence of Culture and Contemplative Practices on the Perception of Pain Name of Researcher: Huicong Luo (Tanya)				
Pa	rticipant Identification Number	for this project:			
1.	I confirm that I have read and understand the information sheet explaining the above research project and I have had the opportunity to ask questions about the project and have had these answered satisfactorily.				
2.	I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason and without there being any negative consequences. In addition, should I not wish to answer any particular question or questions, I am free to decline.				
3.	3. I understand that my responses will be kept strictly confidential. I give permission for members of the research team to have access to my anonymised responses and use them as anecdotal evidence. I understand that I will not be identified or identifiable in the report or reports that result from the research.				
4.	. I agree for the data collected from me to be used in future research or related activities and am willing to be contacted after the interview if needed.				
5.	I agree to take part in the above re	esearch project.			
Name of Participant Date Signature (or legal representative)				•	
(if	Name of person taking consent Date Signature (if different from lead researcher) To be signed and dated in presence of the participant				

Lead Researcher	Date	Signature		
To be signed and dated in presence of the participant				