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The Ineffability Of Pain

Proposing a nominalist account for pain in academia and practice

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Introduction

The following thesis presents a phenomenological and linguistic analysis of physical pain. In clinical practice, numerous attempts have been made to put pain into words and measure it. However, neither philosophers nor medical researchers have succeeded in developing reliable frameworks that enable precise, quantifiable and empathetic communication of the people involved. No matter how hard we try, most of what we experience seems indescribable, or unconveyable intersubjectively. Therefore, it appears that there is a sense of ineffability surrounding experiences of pain. As we investigate this phenomenon, the thesis is written with the belief in mind that assessing pain's ineffability may help us understand the experience of pain as a whole. In addition, pain's complexity carries over into language, therefore helping us understand the limits of linguistic codability. Pain seems to challenge all boundaries we try to put on it, be they of medical, philosophical or linguistic nature. Therefore, it remains an intriguing topic across a variety of disciplines.

The thesis itself is split into two parts. As we aim to make statements about pain, we must first delimitate what pain is. Part I of the thesis is dedicated to helping us achieve that: as will be seen in this chapter, there are several competing notions about the nature of pain. Neither medical nor philosophical theories are unanimous in what they consider to be pain. Here, the most relevant theories will be presented and evaluated. While this thesis does not subscribe to and argue for a particular theory, we do argue that they struggle to exhaustively explained pain. Further, we argue that the current approaches of finding a dedicated pain mechanism or defining quality of experience seem to not yet have yielded the desired results.

Having gained a good idea about the nature of pain, part II aims to illuminate the concept of ineffability. Here, potential reasons are portrayed as to why we find it difficult to verbalize certain experiences: again, prevalent notions for ineffability are presented. Here too, scholars aren't unanimous about the criteria for ineffability, albeit the disagreements aren't as harsh as those regarding theories of pain. Things are ineffable either because they cannot be thought due to cognitive limits, because the thought or sensation cannot be verbalized, or because the speaker decides to not select an utterance from a group of competing sentences. In addition, things can be ineffable in the context of a single language, or across all languages. While the theories broadly overlap in their distinctions of weak (language bound) and strong (cognitively

bound) ineffability, they differ in the interpretation of that fact. Another axis of contention is also posited at the level of meaning:

some scholars posit that words inherit their meaning by statically referring to objects, others believe that meaning arises within a discourse unrelated to objects but tied to the intent of the speaker. Therefore, notions of ineffability also change depending on our conception of meaning.

Having gained a good idea about the nature of pain and the notions of ineffability, we are tasked with assessing how pain fits into the presented frameworks of ineffability. Here, the thesis investigates the intersection of perception and language. Conjoining linguistic and philosophical theories we finally arrive at our conclusion – that pain is ineffable. The following pages aim at explaining why that is the case.

Part I - Understanding Pain

To investigate the ineffability of pain, the first task lies in understanding pain. The IASP defines it as “an unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage.”¹ First, it seems defined as an unpleasant sensory *and* emotional experience, not merely a physical one. Second, it is associated with tissue damage or *potential* tissue damage. And lastly, as the syntax of the sentence suggests, it is an *experience*. Corns comments this definition as pain being whatever experience we ascribe to be pain.² That definition seems very ambiguous, almost trivial at first. However, as will be demonstrated in this chapter, this is not necessarily a shortcoming of the IASP, hence we are not criticizing this definition for now.³ Rather, the aim is to show why any definition of pain – be it IASP or any other – must be definitionally open to encompass a wide range of sensations, mental-states, and experiences.

In order to support the claim about pain being ineffable, an understanding about pain and its experience must first be gained. What is pain? What are its mechanisms? How does it function on a physiological level? And what kind of experience is pain? Through seeking the answer to these questions, the aim of this part is to understand why pain is hard to classify.

For that purpose, this part is segmented into three chapters: At first, common beliefs about pain are questioned. Pain might be obvious, self-explanatory to some. This obviousness it will lose in lieu of a dedicated science of pain. The challenges and conditions such a science brings with it are presented. Then, a look will be taken at the explanations themselves: starting with mechanistic theories of pain, we present its most prominent strands of research. Afterward, we look at philosophical positions on pain. Some interpret pain to represent tissue damage, others see it as an evaluation and imperative. At last, our final chapter draws its conclusions about the current state of pain research.

¹ International Association of Pain Research: <https://www.iasp-pain.org/publications/iasp-news/iasp-announces-revised-definition-of-pain/> (accessed 22 Sept. 2024). Definition provided to the IASP by Prof. Srinivasa N. Raja, MD.

²Cf. Jennifer Corns, *The Complex Reality of Pain*, New York and London 2020, 166. Claims that the IASP definition is “[...] explicitly intended to capture common usage of the term ‘pain’.” However, pains in everyday contexts are more variable and less subjective than the IASP definition states.

³ Corns presents criticism of this term: The IASP definition does not suit proper scientific inquiry, but rather only reflects common usage of *pain*. We do not wish to adopt all of said criticism or discuss it in detail in this paper. (cf. Corns, *Complex Reality of Pain*, 160-166)

1.1 From Folk Theories to a Dedicated Science of Pain

Our investigation into pain begins at common knowledge. What do we, individually and societally, commonly believe pain to be? As will be seen shortly, all token pains seem laden with assumptions and predictions about what they are and what they mean. We will look at how some of these assumptions we deal with in everyday contexts are deeply helpful to us, and where they stop being so.

There comes a point however, where assumptions aren't productive enough in delivering solutions. At that point, further, more systematic, research is required. For that to happen the term of our research needs to be reevaluated, in this case: pain. A concept that helps in that is the notion of *natural kinds*. First, the concept of natural kinds is explained, which are, in short, entities we have not fabricated for intellectual purposes. If pain is to be researched, we ought to know whether it exists as an independent entity, or if it is perhaps all but a working term invented to name an otherwise opaque phenomenon. Being a natural kind or not drastically changes how we investigate a phenomenon and the kind of propositions we receive from doing so.

1.1.1 Folk Platitudes about Pain

Folk epistemology is, roughly speaking, our principles, practices, and presuppositions regarding how we think about, perceive, and communicate knowledge.⁴ In everyday life, we deal with arguments, beliefs, and claims for truth regarding many sorts of things far prior to our academic research about knowledge that is epistemology proper.⁵ These intuitive judgements of common sense about worldly and mental states of affairs are subsumed as statements. Once, such a statement seems to be correct, it is added to a body of similar statements, tying it into a loose cluster of statements that constitute a folk theory. This process of establishing folk theories is not at all an individual, but rather a collective effort – one that

⁴ Cf. Mikkel Gerken, "Puzzling Patterns of Knowledge Ascriptions", in: Mikkel Gerken (ed.): *On Folk Epistemology*, Oxford 2017, 20-43.

⁵ Note: There is a relationship between epistemology and folk epistemology in so far as philosophers investigate how we come to a body of claims, beliefs, and arguments about the state of the world, prior to scientific investigation. Through biases and other factors involved in forming knowledge, folk and non-folk epistemology are not in all cases strictly distinct (cf. Richard F. Kitchener: "The Epistemology of Folk Epistemology", in: *Analysis* Vol. 79 (3), 2019, 521-530).

Further Note: Hegel's concept of speculative logics (*späkulative Logik*) touches on this topic in an investigation into how we are even able to formulate hypotheses.

brings with it traces of normatives and biases dependent on a folk theories' (social-) location.⁶ Therefore, people have plenty of such folk theories about many different things, which include: pain.

Therefore, let us start from the point that is our commonsense notion of pain: Isn't pain just a physiological mechanism of our body after all – like breathing or digesting? Some folk conceptions might lead us to believe that.⁷⁸ On its surface, pain seems to be the apparatus designed to protect us from harm by informing us that something is wrong, or that we shouldn't do this with our body. Yet, it cannot claim this role for itself as we have several different mechanisms that protect us from harm. Anxiety, fear, and disgust also serve this purpose. However, pain is undoubtably different from anxiety and disgust insofar as it seems to require a certain harm to have happened to us already, whereas anxiety and disgust can be felt in mere anticipation of it. Intuitively, we would also ascribe a strong degree of physicality to pain. Something seems to happen *with* our bodies primarily when we are in pain. And despite their accompanying physical symptoms, other protective measures, such as anxiety, seem less *physical*, more *psychological* according to our folk platitudes.⁹ Pain however - we are often certain - is the ancient mechanism located somewhere *in* us, meant for protecting and warning us of death approaching through its intensity.

Further, token pains are often reported as being extra-mental due to their tiedness to a bodily location. Think of a headache, a toothache, or the likes. As patients, we always seem to report a locative. Pain is seldom just a general pain. In addition to having a location, pain itself is also objectified to some degree. One might have a light pain, or a very strong one. In either case, they are quite able to tell the difference in degree, even if communicating it adequately – as will be seen – might prove to be a challenge. According to Corns 2021, statements such as *there is a pain in my foot* imply this notion of pain as having a location, an object it is assigned to, and a perception of said object.¹⁰

Folk platitudes also describe pain as something that is unpleasant, something we want to get rid of. The best pain is the one we have forgotten. Therefore, pains bring with them a normative

⁶ Cf. Hugo Mercier: "The Social Origins of Folk Epistemology", in: *Review of Philosophy and Psychology* Vol. 1 (4), 2010, 499-514.

⁷ Corns, *Complex Reality of Pain*, 3-5. Note: Some folk theories posit pain as an extra-mental thing in our body due to its tiedness to a location. Other's present pains as mental episodes such as feelings.

⁸ Cf. Murat Aydede, "Pain", in: Edward N. Zalta (ed.): *Stanford Encyclopedia of Philosophy*, 2019.

⁹ Cf. Corns, *Complex Reality of Pain*, 3-5.

¹⁰ Cf. Corns, *Complex Reality of Pain*, 5.

of self-negation: they are bad and command us, on a fundamental level, to stop having them. They may tell us what's wrong, but they also tell us to get rid of them. Pain compels us to act.¹¹

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Don't touch the stovetop. Watch your fingers when cutting vegetables. The promise of pain is one we do not want redeemed. Our folk platitudes help us achieve that. A part of their protective rationale lies in categorizing pains so that they lose their threatening ambiguity. Knowledge is power, or in this case, protection. Therefore, we intuitively believe pains to be like one another. I have a headache, a stomach-ache, a broken finger, a rash, inflammation. Each of those are a *type* of pain, which implies that different tokens of pain share a certain likeness. My headache and yours are similar in that they are both headaches.

In our current folk platitudes, pain invokes practices and procedures that inform us how to deal with it. For if we feel pain, we seek help, comfort, and healing from medical professionals. In milder cases it is sat out, letting hope do the work. Pain also begets a set of implicit beliefs about itself – such as pain informing us that it is bad, that we must want it to stop, or that something is wrong or out of balance. And lastly, pain makes tacit arguments about human life, and conditions for the end thereof. It tells us that the more pain there is, the closer to death we might be. Reversely, the absence of pain implies that one's life be somewhat balanced, healthy and in order; for we would feel pain if we were ill enough to warrant worry.¹³ Feeling no pain is a reason to be grateful. Painlessness is seldom lamented.

From pain in bodily locations, to cognitive processing of pain, to behavioural tendencies and further - a lot remains to be said about different aspects regarding our commonsense notion of pain: Its relationship to culture, its relationship to certain demographical concerns (especially age and biological sexuality), the normative values it brings with it of being bad and something being wrong in a bodily location, etc. Sadly, this thesis cannot hope to be entirely comprehensive here. For the course of this thesis, we shall remain with the argument that everything surrounding our folk-platitudes of pain is mainly geared towards equipping us for dealing with it. If nothing else, folk theories are one thing: they are deeply pragmatic.¹⁴

¹¹ More in this works Chapter 1.3.2. where the link between pain and action is discussed.

¹² Cf. Colin Klein, *What the Body commands: The imperative Theory of Pain*, Massachusetts 2015.

¹³ This reasoning of only strong physical symptoms or pain justifying medical appointments is especially prevalent in men (cf. Ian Banks: "No man's land: men, illness, and the NHS", in: *British Medical Journal*, November Issue 3, 2001, 1058-1060).

¹⁴ Cf. Corns, *Complex Reality of Pain*, 7.

These folk platitudes have some truth to them. Other truths they struggle to provide. But more importantly: they remain assumptions.¹⁵ For instance, it is an assumption that pain occurs in relation to tissue damage. In many instances, especially chronic pains or neuropathic pains, no underlying tissue damage can be found. Another assumption is pains tiedness to bodily locations. Again, many cases prove that a certain pain occurs in parts of the body that either aren't the damaged (such as the elbow hurting due to an injury at the spine), or in the case of phantom pains the bodily location does not even exist anymore. Yet other assumptions about pain's unpleasantness seem untrue. After all, we deliberately seek them out in spicy food, sports, massages, scratching, sexual play, etc. Is it still pain if we enjoy it? And lastly, pain is not even necessarily a protection mechanism, or a sign of illness as it occurs in entirely healthy physiological processes, such as menstruation.¹⁶

In everyday contexts we are somewhat satisfied with our folk platitudes about pain. However, once we reach the clinical field where difficult situations of patients require nuance, our folk platitudes seem often mute, and potentially inhibiting to treatment.¹⁷ In the long run, patients would benefit from replacing folk theories with a more truthful term of pain.

1.1.2 Acquiring scientifically sound terms

So far, it was established that folk theories lack the attention to detail and scientific strictness necessary to provide comprehensively true statements about pain. Followingly, some expectations to a possible science of pain are formulated. One such expectation of a more truthful term is gained by resolving whether pain is a natural kind or not. Therefore, this section aims to explain the concept of natural kinds in general, before drawing the consequences that

¹⁵ Cf. Aydede, "Pain", Chapter 1: "The common-sense conception of pain".

¹⁶ Cf. Sewon Bann et al., "A one-year observational cohort study of menstrual cramps and ovulation in healthy, normally ovulating women", in: *Scientific Reports* Vol.12 (1), 2022. Note: This study concludes: among the 53 women participating "All had at least one day in which they recorded a cramp intensity > 0 during the year; women recorded cramps in 74.5% of all cycles."

Note: Of course, severe pains are cause for concern and illnesses such as Endometriosis. As discussed in: G.S. Lemaire, "More Than Just Menstrual Cramps: Symptoms and Uncertainty Among Women with Endometriosis", in: *Journal of obstetric, gynaecologic, and neonatal nursing* Vol. 33(1), 2004, 71-79.

Note: Harlow & Park conclude that menstrual pains occur in 71.6% of menstrual bleeds among a test-group of 65 women, aged 17-19 in good health condition. 1996. (cf. Harlow, SD; Park, M., "A longitudinal study of risk factors for the occurrence, duration and severity of menstrual cramps in a cohort of college women" in: *British Journal of obstetrics and gynaecology* Vol. 103 (11), 1996, 1134-1142)

¹⁷ Cf. Martin Kusch, Matthew Ratcliffe, "The World of Chronic Pain", in: Kevin: Aho (ed.): *Existential Medicine: Essays on Health and Illness*, 2018, 7: A pain therapist tells a chronic pain patient (Prof. Kusch) to just "get over" the psychological effects of his pain, effectively not treating the pain and burdening the patient further. To us, this shows that pain is still seen as a merely physical thing that need no further inspection of its cognitive and emotional components, even from professionals on occasion.

would come with pain being a natural or not. This will set the specific explanations for pain in 1.2 and 1.3 into context, before 1.4. ties everything together for a conclusion.

Pain is a single word. Moreover, it is a substantive. As with all substantives, the syntax of language interprets them to be distinct things, instances of a certain kind of existence that stand on their own, apart from other existing things. Verbs make these things act – my pain grows or wanes. And lastly, things can be said about this singular thing that exists, by use of adjectives. My pain is dull, sharp, stinging or pulsing. It has properties. Pain is therefore distinct from something that is not pain, such as an apple. That is the linguistic framework for pain. However, with this use of language, or perhaps because of it, pain carries some metaphysical baggage. Philosophers will know that all statements above are as much metaphysically laden sentences as they are sentences about a word.

But what if pain is not a single *thing* so to speak? What if it doesn't stand on its own, apart from other things that aren't pain. What if pain doesn't even exist in that *kind* of manner? The philosophical discourse on natural kinds is greatly helpful here:

“To say that a kind is natural is to say that it corresponds to a grouping that reflects the structure of the natural world rather than the interests and actions of human beings”¹⁸

This discourse is similar to the problem of universals in scholasticism. It posits the question of whether a thing is a distinct entity, or a human-made lump of notions, attributes, behaviours, etc. Let us start with a crude example: white is not a natural kind. There are white clouds, chalks, leukocytes, cars, etc.¹⁹ Linguistics supports us here in not letting white take the role of a substantive. The problem can grow more complex, though. For instance, air is also not a natural kind, but our commonsense notion of air assumes it to be a distinct thing. Air is not water, and neither is it an apple. It is also not an adjective. The statement *My car is air* does not make sense, although *My car is white* does. However, the status of a substantive does not lift air's metaphysical baggage. What our commonsense notion of air entails, and the way we talk about it in everyday contexts is perhaps pragmatic, but ultimately wrong. Air doesn't exist as such. There is only the atmosphere of the earth. Said atmosphere has a chemical composition to it, that includes nitrogen, oxygen, argon, carbon dioxide and other gases. Further, this

¹⁸ Alexander Bird, Emma Tobin, “Natural kinds”, in: Edward N. Zalta (ed.): *The Stanford Encyclopedia of Philosophy*, Stanford, 2022, 1.

¹⁹ Example taken from Hawley & Bird: “What are natural kinds?”, in: *Philosophical Perspectives*, Vol. 25 (1), 2011, 205-211, 1. Originally this analogy about whiteness is presented by J. S. Mill: *A System of Logic, Ratiocinative and Inductive*, Volume 1, Cambridge 2011, 122-23.

chemical composition changes depending on how far we go up in altitude.²⁰ The thermosphere entails other gasses than the troposphere, and those gasses separate themselves from one another more than they do in the troposphere. In short: scientifically, it does not make much sense to refer to *air*, because it doesn't exist as such. Air is not a natural kind; it is a lump of different separate entities, such as gasses, forces, their modalities and relationships, whose existence is tied together in the substantives invented to help us think and communicate. While talking about air is perfectly fine in everyday contexts, scientific investigation demands more accuracy if it is to deliver true statements about structures of the natural world. This way of reasoning eliminates what our commonsense notions have built. Scientific eliminativism, as it is called, is the process of our folk theories being problematized and replaced by scientific discoveries.²¹

Returning to pain, the question arises whether pain is a natural kind or not. Folk theories imply that it is. Similar to our notion of air however, we might be wrong in that regard. Corns states, that natural kinds are those entities “usefully referenced for the explanations and predictions facilitated by those generalizations.”²² If pain is indeed a natural kind, then it must be usefully referenced scientifically. Further, it needs an explanation of what it is and what distinguishes it from other entities. To qualify as a natural kind, pain is tasked with having a distinct pain mechanism, or a system dedicated to it. If pain does not point us towards any such system, then this is a strong reason to believe that pain is not usefully referenced for scientific purposes. Therefore, we would not be unjustified in believing pain to be no natural kind.²³

To be precise: something not being a natural kind, does not necessarily entail that it isn't suited for scientific inquiry. The term *society* is much like *air* in that it is the amalgamation of a myriad of things. Yet, the academic field of social-anthropology exists. It does, because it is incredibly self-aware and under strong suspicion of its own subject, constantly reiterating its fabricated-ness, even encouraging its plasticity. And historically, it had to deal with this exact problem of assuming society, suddenly finding itself in dire need of redemption as a scientific

²⁰ Cf. Schlager et al., “Chemical Composition of the Atmosphere”, in: Ulrich Schumann (ed.): *Atmospheric Physics: Background – Methods – Trends*, Heidelberg 2012, 17-36.

Cf. Peter V. Hobbs, *Introduction to Atmospheric Chemistry*, Cambridge 2012, Chapter 3, 26-31.

²¹ Note: Even the pre-Socratic elementalists, such as Anaximenes and Anaximander talked about air changing its shape into other elements, such as water or fire. This however does not comment on whether air existed as a distinct kind. It is assumed that air was more akin to οὐσία. A principle, yet material.

²² Corns: *Complex Reality of Pain*, 9.

²³ Cf. Corns: *Complex Reality of Pain*, 15.

discipline.²⁴ One example of this redemption we interpret to be Franz Boas' historical particularism. If truths were to be posited about *society*, they needed to deliver with them the bounds of the term and allow for plurality. Otherwise, they stayed proto-fascist folklore.

An analogous result could be expected for pain: If pain is indeed a natural kind, it is reasonable to continue talking about it as we do now – distinct “thing” that can be investigated secluded from others. If it seems like a non-natural kind – an artificial grouping that is invented or imposed on nature by human rationalization – then we must fare with the term as we did with *air* or *society*. Followingly, we would limit its application, dissecting it into smaller terms that are natural kinds, before investigating those and their relationships that result in the construct we call pain. In short, whether pain is or isn't a natural kind should drastically change how it is talked about clinically and scientifically.

The remainder of this chapter is dedicated to solving this question. Pain exists. We know it, because we feel it, whatever it may be. We can reference it in our everyday lives. Nonetheless, for it to be a natural kind, we must usefully reference it scientifically by soundly distinguishing it from other phenomena and isolating a mechanism or system dedicated to it. If no such mechanism is to be found, pain ought to be considered a non-natural kind such as *air*.

In the current effort of investigating the ineffability of pain we are now at the point of asking the question: *what is pain?* As will soon be evident, there is good reason to not just assume that pain is, or that it is such and such. The answer to this question will also give way to the origins of pain's ineffability.

1.2 Explanations of Pain in Science

The task at hand lies now in finding a physiological pain-system or pain-mechanism. How does pain work? Is there a pain-centre in our brains, or in our spines, or in our nerve-ends? Philosophy aside, what does medical science say about the apparatus behind pain? This will now be investigated. Starting with a brief history of pain research, the road to contemporary theories is sketched. Then, the currently prominent lines of research are presented.

²⁴ See: Fredrik Barth et al., *One discipline, four ways: British, German, French and American Anthropology*, Chicago 2005. Note: Especially the school of German social anthropology suffered from this described dilemma due to its historical baggage.

1.2.1 A brief History of pain research

The history of pain research goes as far back as one is willing to look. For instance, Opium was collected as far as 3400BC, and its pain-relieving effects were observed. In 380-500BC the brain was recognized as the seat of all sensation (Alcmaeon, Democritus, Hippocrates, and Plato). This included pain of course. Shortly after, in 280BC, nerves were described in detail with functional insights from vivisection by Herophilus. Skipping a few steps in our chronology, we arrive at Ibn Sina (colloquially: Avicenna) who posits pain as a distinct sensation in 1025. Skipping a few more years we arrive at the 16th and 17th century. Andreas Vesalius refutes Aristotelean claims that the heart is the centre of the mind and posits the brain as a central nervous system and therefore seating the mind. Shortly after, we receive what could be seen as one of the first attempts at a mechanistic explanation. In his famous 1662 work titled *de homine*, René Descartes describes pain as a linear circuit from the periphery to the brain and as triggering reflex movements. A costly conclusion reached by torturing many animals in the process. In 1897 Aspirin is developed. After several more discoveries, 1965 marks a crucial turning point as Melzack and Wall present their Gate-Control-Theory of Pain.²⁵

Until Melzack and Wall's Gate-Control-Theory, pain research almost unanimously held a notion of pain that was focused on pathologies. This pathology-focused model posits that a patient lamenting his pain is to be diagnosed in such a way that the physiological cause of the pains, the presumed pathology, is to be identified and treated. Corns calls this the disease-, or medical-model.²⁶ This model implies that pains are themselves always tied to a bodily location, and moreover, that there is a proportional relationship between the severity of the tissue damage and the degree of pain. Lastly, it assumes that treating the tissue damage will resolve the pain.²⁷

The problem with the medical/disease-model is that many cases of pain do not adhere to its postulations. The relationship between tissue damage and pain is often not linear, when rather small injuries can cause a lot of pain, or perhaps no tissue damage is found to begin with. People can have severe headaches, yet no tissue damage is to be found in the head, or brain, or anywhere else for that matter. Let us take migraines as an example: migraine-research talks about diagnostics, symptoms, treatment, impact, medication, etc. Yet, even regarding its

²⁵ Cf. Fernando Cervero, John N. Wood, "A History of Pain Research", in: John N. Wood (ed.): *Oxford Handbook of the Neurobiology of Pain*, New York 2019, 7.

See: Franz-Josef Kuhlen, "Historisches zum Schmerz und Schmerztherapie", in: *Pharmazie in unserer Zeit* Vol.31 (1), 2002, 13-22.

²⁶ Corns, *Complex Reality of Pain*, 17.

²⁷ Keith M. Smart et. al., "Towards a mechanism-based classification of pain in musculoskeletal physiotherapy?", in: *Physical Therapy Reviews*, Vol. 13 (1), 2008, 2.

causes, it does not talk about tissue damage.²⁸ To be precise: during a migraine, specific nerves in one's blood vessels send stress signals to the brain. This releases inflammatory substances into nerves and blood vessels in several different regions of the brain.²⁹ This process is currently being unravelled, but it's unclear *why* our nerves do that. For the disease-model of pain to make sense, a causing tissue damage would have to be found, but as of now, we only find evidence for the physiological process of the migraine itself. Causes take the form of non-acute correlations unrelated to direct tissue-damage, such as hormones, genetics, stress, etc.³⁰

The disease-model of pain seemed too simple on one hand, and too demanding on the other. Simple, because it doesn't explain the many pains that happen in absence of tissue damage, too demanding, because it cannot settle its own argumentative debt. For one to assume pain to be proportionally caused by tissue damage, one must prove said causation and proportionality. So far, the (traditional) disease-model of pain has not succeeded in this.³¹ It can only claim for itself somewhat of a correlation between tissue damage and pain, but in many cases no direct causation, and no necessary proportionality.

Arriving at 1965, the disease model is now being fully challenged. It will now be investigated how this came about, and which theories offered the most promising mechanistic explanations for pain. While the scope of this thesis cannot present too many physiological details regarding specific explanations of pain, we will try our best to give a rudimentary overview for each of them and more importantly: seek an answer to the question of whether there is a distinguished pain mechanism to begin with.

1.2.2 Melzack and Wall's Gate-Control-Theory

One thing is whether pain is caused and proportional to tissue damage, another is the question about pain-mechanism's exclusivity. Prior to the Gate-Control-Theory (GCT from now on) mechanistic explanations debated whether pain is a modality of any sensory input, or a separate perception altogether. The first approach, the intensity theory posits that pain is a perceptual experience, but one that can arise through any sensation if the input is strong enough. Intense

²⁸ Cf. Richard B. Lipton et al., "Migraine Diagnosis and Treatment: Results From the American Migraine Study II", in: *Headache* Vol. 41 (7), 2001, 638-45.

²⁹ Cf. Dan Levy, "Current understanding of meningeal and cerebral vascular function underlying migraine headache", in: *Cephalalgia*, Vol. 39 (13), 2019, 1606-1622.

³⁰ Cf. Johra Kahn et al., "Genetics, pathophysiology, diagnosis, treatment, management, and prevention of migraine", in: *Biomedicine & Pharmacotherapy*, Vol. 139, 2021.

³¹ Corns, *Complex Reality of Pain*, 18.

sounds become painful once they reach a certain pitch or volume. So does intense light, intense touch, or any other type of sensation. Here, pain is merely a modality of the sensation it accompanies. On the other hand, we have the sensory theory of pain that posits it as a distinct sensation that has its own dedicated and distinct receptors, pathways, neural areas etc. According to the later we pain is not the perceptual company to an otherwise distinct sensation, but it is its own sensation, the sensation of pain.

The arising question debates, therefore, whether pain is a specific phenomenon, or a convergence of several non-specific phenomena. Specificity here entails that a phenomenon has its biological structures that are dedicated to that very phenomenon only. A convergence of non-specific phenomena means that the phenomenon in question, pain, is determined by the convergence of activities in multiple structures, none of which are solely dedicated to it. In simpler terms: If pain has its own *pain-pathway* and *pain-centre*, then it is a specific mechanistic phenomenon. If it does not have a specific pathway, but uses nerves, pathways, neurons that it shares with other sensations – as suggested by the intensity theory – then it is a convergence of non-specific phenomena. Some readers are now hopefully reminded of our example about air and the atmosphere in Chapter 1.2.

Before Melzack and Wall, the leading theories were all specificity and sensory theories. They were presumably on the way to finding their desired pain-centre, pain-receptors, and pathways specialised for transporting pain signals. “Is there a specialised pain system? [...] Melzack and Wall offered resounding negative answers that continue to reverberate.”³²

As we cannot hope to go into detail about the physiology behind pain mechanisms, a very brief description must suffice here. Nonetheless it is important to investigate this, as the paradigm shift of the GCT is paramount to understanding modern pain science:

On a peripheral level, we do have sensory neurons that inform us of potentially harmful stimuli. These are called nociceptors.³³ Once a strong sensation is felt in our peripherals, our nociceptors start responding to potentially damaging sensations.³⁴ However, these nociceptors are not all too sensitive, in that they only respond to rather strong stimuli. Said stimuli are

³²Corns, *Complex Reality of Pain*, 89; See: Massieh Moayed, Karen D. Davis, “Theories of pain: from specificity to gate control”, in: *Journal of Neurophysiology*, Vol. 109 (1), 2012, 5-12.

³³ Nociceptors are attached to thin myelinated Aδ and unmyelinated C fibers, which terminate in the dorsal horn of the spine. See: Eric L. Garland, “Pain Processing in the Human Nervous System: A Selective Review of Nociceptive and Biobehavioral Pathways” in: *Primary Care: Clinics in Office Practice*, Vol. 39 (3), 2012, 561-571.

³⁴ Adrienne E. Dubin, Ardem Patapoutian, “Nociceptors: The sensors of the pain pathway”, in: *Journal of Clinical Investigation*, Vol. 120 (11), 2010, 3760-72.

contemporarily classified as being either of the mechanical, thermal, or chemical kind. Not all nociceptors are equal, though. Dublin & Patapoutian 2010 argue that this stands in contrast to the high sensitivity of visual, auditory, olfactory, taste, and somatosensory organs to their adequate stimuli. Therefore, external nociceptors alerting us of damage in and around skin-level (Cutaneous nociceptors) work differently to internal nociceptors.

Are these nociceptors and their supporting structures in our spinal cord our dedicated, specialized pain system, then? Is the specificity theory correct? They are not. While nociceptors do play a part in triggering pain sensations, they do not do so exclusively. For one, they are generally either firing or electrically silent, which is quite unintuitive as we would categorize painfulness to be a spectrum, not an on-and-off-switch. This is a minor point though, as explanations can still be delivered here. Second and more importantly, nociceptor activity does not necessarily lead to pain.³⁵ They can be active during sensations that aren't perceived as painful. And reversely, the excitability of the T-Cells can result in pain that is disproportionally intense to the sensory stimulation.³⁶ Further, stimulation of nociceptors is not the only route via which perception of pain may be initiated, especially for the case of neuropathic pains.³⁷ Followingly, the correlation between pain and noxious stimulation seems poor and therefore we presume nociceptors to not fulfil the specificity criteria of being our dedicated neurons for only and every sensation of pain.³⁸

Looking away from nociceptors, the specificity theorists then assumed that neural stem cells (NSCs) were the only cells that could be involved in triggering pain, fulfilling their specificity criteria. The dorsal horn is the part of the spinal cord that is tasked with relaying, regulating, and modulating the incoming impulses from areas such as skin, muscle, and viscera.³⁹ This approach of the specificity theory thus assumed, vulgarly speaking, that the distinguished mechanism is located at the other end of nociception— not at the peripherals but at the dorsal horn of the spine where nociceptors terminate. The GCT however proposed that pain would be triggered, if the transmission rate of any group of cells, not just NSCs reached a critical level. Whether said level was reached is not only determined in the dorsal horn of our spinal cord

³⁵ Cf. Corns, *Complex Reality of Pain*, 93; See: William D. Willis Jr., Richard E. Coggeshall, *Sensory Mechanisms of the Spinal Cord*, Third Edition, Volume 2, New York 2003.

³⁶ Cf. Corns, *Complex Reality of Pain*, 93.

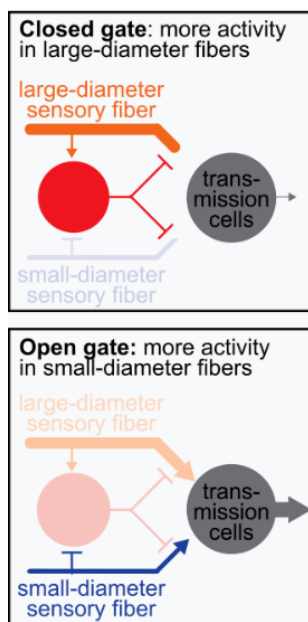
³⁷ Cf. Shuang Liu, Leigh Kelliher, "Physiology of pain—a narrative review on the pain pathway and its application in the pain management", in: *Digestive Medicine Research*, Vol. 5, 2022.

³⁸ Cf. Corns: *Complex Reality of Pain*, 95.

³⁹ Cf. Alan R. Light, S. Lee, "Spinal Cord Physiology of Nociception", in: Richard H. Masland (ed.): *The Senses: A Comprehensive Reference*, Amsterdam 2008, 312.

alone. Sensitizations of pain are recognized as occurring both peripherally at nociceptor level and centrally in the dorsal horn of the spinal cord, not just in the latter, as assumed by specificity theorists. The GCT further claims that there are several kinds of T-Cells in the dorsal horn apart from NSCs. Wide-range-dynamic-cells (WDRs) can receive several different inputs and are crucial and most the most common of the cells in the dorsal horn which signal injury.⁴⁰ For our purposes the most important fact about WDRs is that they are not specific to pain processing. Here the specificity approach seems incorrect again.

Let us then examine the name-giving mechanism of the GCT, the *gate*. This metaphorical term describes the fundamental assertion that T-Cells could not only be excited, but also inhibited. The extent of the T-Cells excitation determines if a “gate” is closed or open, meaning whether the transmission is passed beyond the dorsal horns of the spinal cord into the brain, or whether it is not passed on further. The T-Cells are connected to nonnociceptive large-diameter sensory fibres and to nociceptive small-diameter sensory fibres. (See: Fig 1.)



(Figure 1: Illustration of the Gate-Control-Mechanism)

It is to note that the *gate* is a metaphor for the active or dormant nature of transmission. If there is more activity in the nonnociceptive large-diameter sensory fibres, then the gate is closed, no pain signal is transmitted. If the nociceptive small-diameter sensory fibre reports more activity, then the according stimulus is transmitted, the gate is *open*. The fact that these gates can be *closed*, meaning that T-Cells can be inhibited, is the crucial postulation of this theory. In

⁴⁰ Ronald Melzack, Patrick D. Wall, *The Challenge of Pain*, Updated 2nd Edition, New York 1988, 167.

addition, not only is it pain-sensations that stimulate the fibres that command the T-Cells, but nonnociceptive signals also do. A gate can therefore be closed from transmitting pain signals by being *occupied* through other non-pain inputs.

This gives a small insight as to why we rub our bruises, play with wounds etc. To the GCT this is our attempt at stimulating the large-diameter sensory fibre and therefore inhibiting transmission of pain signals.⁴¹ T-Cells could also be inhibited by opioids our body produces internally. Therefore, we feel less pain if we are laughing or whilst our brain is flooded with hormones after exercise.⁴²

In addition to the gate-mechanic, another point of discovery heralded by the GCT is the direction of transmission. That the signals go up to the brain is clear. Though even before Melzack & Wall it was assumed that there is downward modulation from the brain towards the transmitted signals in the dorsal horn and nociceptors. The GCT highlights how important downstream modulation was for whether a sensory input was experienced as pain. The result of this is summarized by Corns:

[...] many transmission cells are relevant to pain processing, and there are many paths of descending control modulating the activity of those cells. [...] Melzack and Wall held that almost the entire brain exerts not only inhibitory, but excitatory, control over local and ascending dorsal horn transmission”⁴³

To conclude our explanation of the GCT so far: many areas of the brain, spine and peripherals are involved in transmission and processing of pain signals. There seems to be no singular mechanism dedicated to pain only, as assumed by the specificity theory.

Disproving the specificity of the pain-mechanism was one achievement of the GCT. Another achievement lies in disproving the assumption of pain being purely sensorial. So far, we have only portrayed findings that speak against a specific pain-mechanism from a sensory point of view. However, Melzack and Wall also argue that taking pain as a purely sensory phenomenon was insufficient.⁴⁴ What people report when being in pain is not only limited to sensations of their bodies. Their experience includes feelings, evaluations, fears, calls to action, etc. The GCT predicts that the multitude of pathways involved in processing pain, means that many

⁴¹Cf. Corns, *Complex Reality of Pain*, 95.

⁴² Ibid.

⁴³ Corns: *Complex Reality of Pain*, 96.

⁴⁴ Ibid.; Cf. Melzack & Wall, *The Challenge of Pain*, 191.

non-sensory transmissions are part. Pain is therefore multidimensional: it is not only sensory, but also cognitive-evaluative and affective-motivational. It is not that I have a painful sensation in my arm and as a result I perceive my arm as being painful and as another result am worried and want it to stop. Rather, the cognitive and affective components of pain are part of the pain itself. They are not reactions, but constituents of pain.⁴⁵

Despite being the pain theory that can account for the widest variety of pains, it is yet not exhaustive. Later, Melzack and Wall identify that there must be two independently separate mechanisms that account for prolonged pain, that is not explained by the previous iteration of the GCT. One instance is impulse-triggered (inflammatory) pain, the other is transport-controlled (neuropathic) pain. Due to the involvement of C-fibres that function differently depending on the type of tissue they inhabit, a second, independent mechanism of transmission control was presumed to be in the dorsal horn. This second mechanism, in addition to the mechanism of gate-control, would be necessary to explain prolonged inflammatory pain. A similar predicament arose for neuropathic pains. Those are pains that happen, either peripherally or central, due to damage to the nervous system. Again, C-Fibres were suspected to transmit the chemicals relevant to these sorts of pain. This transportation of those chemicals needed to be accounted for by an independent system to explain pains that the GCT could not explain prior. Melzack and Wall did not develop those other mechanisms any further.

One might be tempted to ask, if the GCT serves as our definitive explanation for pain. After all we were looking for a physiological mechanism behind it, a concept that Melzack and Wall have certainly delivered on. Conversely, being an explanation for each and every instance of pain - postulating *the* explanation for pain - is not included in the self-understanding of the theory. As by Corns: “The claim that there is a single pain mechanism is antithetical to the spirit of their quarrel with specificity theory.”⁴⁶ The GCT claims to have found a pain mechanism, but not the definitive one. Further, they posit limits on which types of pain it manages to explain, and which it cannot. Lastly, but to us very crucially, it understands non-painful stimuli to be constituent parts of pain, not just reactions to it. This is the first pain theory that deliberately emphasizes the sheer diversity of pain as a physiological process.

Of course, there is criticism of the GCT. Those mainly revolve around the schematic of the gate-mechanism to be *too* schematic. It does not exhaustively explain pains. Further, it does

⁴⁵ Cf. Melzack & Wall: *The Challenge of Pain*, 192.

⁴⁶ Corns, *Complex Reality of Pain*, 100.

not really elaborate on the role of the brain. In some illustrations of the GCT the brain is merely depicted as a box with “central control” written in it, which tells us about the blank existing regarding this part of the theory. It is therefore adequate in our estimation to criticize these points about the GCT, as it is not entirely successful in explaining or predicting pain.

Nonetheless, the GCT has achieved something it can be commended for: Even though it does not provide a definition of pain or specific mechanism that undoubtably explains it, there are certain phenomena that it manages to include into our definition of pain. Prior to Melzack and Wall, pain science did not account for the many cases of pain that didn’t adhere to the specificity theory. Treatment options were often limited to the healing of the underlying pathology. Patients that didn’t show response to standard treatments had a meagre set of options to select from. Those patients were thought to be either misreporting, misinterpreting their own pain, mentally ill, etc. Today, pain research owes its broadened horizon partially to the GCT as it identifies the multitude and range of mechanisms, independently involved in sensations of pain.

Of greater importance for our endeavour are the conclusions of the GCT: Melzack and Wall conclude that pain is not a specific phenomenon, it is not a distinct sensation in the mechanistic sense. Pain is not served by specialised pathways, receptors, or areas in the brain. Melzack and Wall deny the existence of a pain-centre in the brain when stating:

“The old concept of a ‘pain centre’ is obviously nonsense. Many areas of the brain are involved in pain processes, and they interact extensively.”⁴⁷

Further, pain is – not on a philosophical, but on a physiological level – multidimensional. It is in part a sensory phenomenon, but cognitive evaluation, and emotional affectivity are just as much parts of it. The pathways, neurons, and brain regions active in the process of pain seem too plenty, too diverse and too interactive to speak of a mere sensory phenomenon that could be isolated.

Corns puts the influence of the Gate-Control-Theory as follows: “[...] all dominant contemporary scientific models of pain now represent it as a multidimensional experience that paradigmatically includes sensation, affect, motivation, cognition, and evaluation.”⁴⁸ The GCT thus heralded a paradigm shift in research and became one of the most prominent theories

⁴⁷ Melzack & Wall, *The Challenge of Pain*, 122.

⁴⁸ Corns, *Complex Reality of Pain*, 16.

of pain.⁴⁹ Theories coming forth that posit pain as a non-distinct mechanism, but sharing pathways that also have other uses are called convergence theories. For our inquiry of whether there is a pain-mechanism we can ascribe as such, Melzack and Wall will answer with a resounding negation. There are many mechanisms, and they interact. Some mechanisms take part in some token pains, yet in others they do not. Despite the many advances of the GCT, no definitive mechanistic explanation of pain is provided here.

1.2.3 Price's Somatic Perception Theory

The somatic perception theory of pain was published by Donald Price's works "Psychological Mechanisms of Pain and Analgesia" (Price 1999a) and "Expectation and desire in pain and pain reduction" (Price 1999b). His theory is strongly influenced by and is in many ways an addition to the Gate-Control-Theory.

Price somatic perceptions must fulfil three criteria to be considered pains:

- 1) A bodily sensation with qualities like those reported during tissue-damaging stimulation.
- 2) An experienced threat associated with that sensation.
- 3) A feeling of unpleasantness or other negative emotion based on this experienced threat.⁵⁰

Notice how this definition of pain now encompasses processes, perceptions, cognitions, and affectations that the specificity theory would interpret to be not inherent parts of pain. Price claims that they are, not as a response, but on a physiological level part of it. It is therefore also a convergence theory.

These three conditions together are necessary to constitute a pain. Pain cannot come without a sensation of threat and experienced unpleasantness. Price argues that pain uses the somatosensory system, a physiological pathway terminating in the postcentral gyrus of our brain, and is, again overly simplified, responsible for producing perceptions of touch, position,

⁴⁹ Cf. Joel Katz, Brittany N. Rosenbloom, "The golden anniversary of Melzack and Wall's gate control theory of pain: Celebrating 50 years of pain research and management", in: *Pain Research & Management*, Vol. 20 (6), 2015, 285-286.

⁵⁰ Cf. Donald D. Price, *Psychological Mechanisms of Pain and Analgesia*, Seattle 1999, 8.

movement, location, etc.⁵¹ He states that pain is a type of somatosensation and that there is a distinct qualitative character to pain that it inherits from activities of the somatosensory system. As Corns summarizes: “This distinct type of somatosensation inherently disposes one to experience the further feelings of threat and unpleasantness that Price takes also to be necessary for pain.”⁵²

It being a somatosensation, instead of pure nociception, is what grants pain this multidimensionality, Price argues. What roles do threat and negative emotions play then, if they are claimed to be essential parts of pain? These cognitive evaluations being part of the perceived sensation help inform the modalities of said sensation. Corns provides us with the analogy of a professional piano player: A piano player is more likely to attach more threat and have a more dramatic cognitive evaluation with breaking his fingers. This cognitive evaluation therefore alters the unpleasant affect of the experience, increasing the severity of pain overall.⁵³ Moving away from Corns and drawing our own analogy here, we came to think of psychosomatic pains. Patients suffering from psychosomatic pains, or patients with a proclivity to anxiety or OCD tend to evaluate their pains as being more threatening, than people who do not deal with this problematic. According to Price’s theory, it is not that these people just evaluate pain differently as a response and generate more anxiety, but rather that they actively *feel* more pain because the system engaged in these evaluations shares pathways and interactions with somatosensation.

Price also emphasizes the multitude of ascending pathways (from peripherals to spinal cord to brain). These pathways are said to contribute to the multidimensionality of pain, explaining sensory, affective, and cognitive dimensions and their interactions.⁵⁴ These multiple-dimensions also bring with them the need for identification of multiple mechanisms. However, these mechanisms combined are not to be seen as a singular dedicated pain-mechanism, as per the specificity theory, as they are also part in many other, non-pain-related processes.

We may conclude that Price furthers the GCT in accounting for threat and unpleasantness. Although, these were already implied by the GCT, Price argues from a point of identifying different pathways that play a part in our perception of pain. Let us also not for further points

⁵¹ Cf. Corns, *Complex Reality of Pain*, 104; See further for more on the somatosensory cortex Price references in: Michael R. Borich et al., “Understanding the role of the primary somatosensory cortex: Opportunities for rehabilitation”, in: *Neurophysiologia*, Vol. 79 (Pt B), 2015, 246-255.

⁵² Corns, *Complex Reality of Pain*, 104.

⁵³ Cf. Corns, *Complex Reality of Pain*, 105.

⁵⁴ Cf. Corns, *Complex Reality of Pain*, 107.

that Price's theory is well criticized, but more importantly, that it also has more baggage it is burdened with proving. For one, he claims that pains are inherently unpleasant, which is not necessarily true. This can and will be debated further in our philosophical investigations of pain. And secondly, pain is asserted to be a conscious experience. Does this mean that patients in unconscious states are unable to feel pain? Some research agrees, yet others refute this claim as we will also see shortly. Further, there is also the case for non-cognitive nociception. Nociceptors can be active without us being aware of them, as our brain suppresses their activity from being felt. Price understands pain to begin with nociception and end with motoric output (reflexes) or a conscious experience. It is possible for our brain to process nociceptive information without us being aware that such a process is happening as it is suppressed from reaching our consciousness.⁵⁵ Therefore we might all feel pain on a subconscious level, but only once the sensation, the threat, and the affective emotions reach a critical level, *we are in pain*.

1.2.4 Homeostatic Emotion Theory

Arthur D. Craig understands his theory as a paradigm shift to the, by this time conventional, GCT.⁵⁶ Establishing a medium between specificity and convergence theories he posits that pain is a homeostatic emotion. Feelings that inform us of our physiological condition with regards to a certain balance our body is to uphold, are dubbed homeostatic emotions. These include feelings of thirst, hunger, itch, fatigue, etc. Originally titled as homeostatic feelings, Craig expanded the term by including that they have a strong motivational aspect to them. Homeostatic feelings that motivate us to act, are homeostatic emotions. The question of whether there are non-motivating homeostatic emotions, remains. Nonetheless, Craig claims that our body aims at homeostasis and motivates us to act in a manner that preserves it. When we get thirsty, we drink. When we get hungry, we eat.

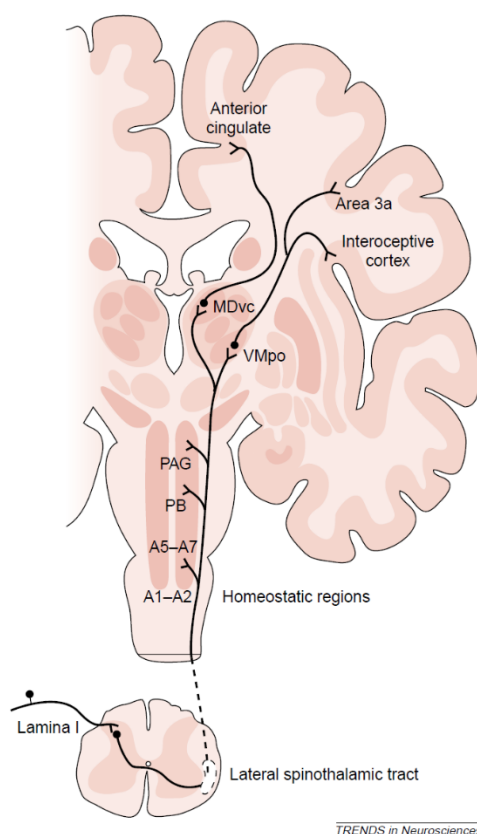
Homeostatic emotions are, in Craig's view, those that have a sensory and a motivational component to them. Both components are necessary, the sensory and the imperative, are deemed necessary to inform our behaviour such that it keeps our body in balance. It is to note that, while there is an affectitious element to this, Craig's stipulations are made in a neuroanatomic framework. While the details of the specific regions of our brain and pathways

⁵⁵ Cf. Corns, *Complex Reality of Pain*, 104-108.

⁵⁶ Arthur D. Craig, "A new view of pain as a homeostatic emotion", in: *Trends in Neurosciences*, Vol. 26 (6), 2003, 304.

involved cannot be discussed in detail here, a very rudimentary explanation would look as follows:

The sensory and motivational components of pain are both genuine and distinct. The interoceptive cortex is responsible for monitoring and regaining homeostasis and subserves pain's sensory dimension. The distinct motivational aspect of pain is processed in the anterior cingulate cortex (ACC). Craig claims that these two neighbouring regions share a converging pathway. The converged privileged pathway requires to be integrated with other streams of information in the brain so we can be informed of the state of our body. In this conception, Craig claims that the pathway leading to the interoceptive cortex is a specialised mechanism for homeostasis. This specialised system then converges with other non-specialised pathways depending on where information is drawn from. – or rather, depending on which kind of actions are required to bring the body back into equilibrium. (See Fig. 2)



(Figure 2: Pathways of the homeostatic emotion, taken from Craig 2003)

Pain and homeostatic emotion are both processed through Lamina I, explaining the convergence.⁵⁷ This puts the theory into a medium of specificity and convergence, as pain is

⁵⁷ Craig, "A new view of pain as a homeostatic emotion", 305.

classified as being a homeostatic emotion, which has its specialised mechanism. Yet for the case of pain, this supposedly specialised mechanism must be informed by other pathways, resulting in a difference of neuroactivity depending on the kind of pain.

Criticisms of this theory involve that Craig reduces ascending pathways to the spinothalamic tract, despite other evidence being offered for including several parallel ascending pathways, as claimed in Price's somatic perception theory.⁵⁸ Followingly, a worry is that there might be many pains excluded from Craig's definition. In a response to Craig, Price postulates pain as fulfilling both interoceptive functions (perception of a bodies internal state), as well as exteroceptive functions (perception of stimuli affecting us, but originating externally, as Seeing, hearing, etc.⁵⁹ Let us also note that Craig's claim also results in a view that excludes pains that do not motivate us to act. Some research however could be interpreted as supporting the homeostatic theory: The brain seems to reduce pain when perceived to be in the face of danger, resulting in an analgesic effect.⁶⁰ The support stems from the fact that the crucial aspect of motivating agency seems so prevalent in pain that it actively needs to be suppressed in dangerous situations to conserve resources. Yet again, this is support for a link between pain and homeostasis, not support for pain to be solely or mainly a homeostatic emotion.

For our purposes of explaining the ineffability of pain, we may conclude that the homeostatic emotion theory has also not delivered a distinct mechanistic explanation for pain. While pain seems to inform us of a type of imbalance, it is not the consensus that pain is subserved by only those pathways Craig identifies. What we do appreciate about this theory, is its emphasis on pains motivational aspect. Pain does seem to motivate us to do things. Further, we do in fact feel that something is wrong with our physiological state once in pain. The question is whether this explains enough token pains, and pain itself exhaustively, to qualify as a theory of it. Corns claims that it doesn't - at best, it explains homeostasis.⁶¹

1.2.5 Neuromatrix Theory of Pain

Published by Melzack in 2001, the Neuromatrix theory is a convergence theory that build on the Gate-Control-Theory. It is aimed at filling some of the holes left by the GCT. Particularly

⁵⁸ Cf. Corns, *Complex Reality of Pain*, 111.

⁵⁹ Cf. Donald D. Price et al., "Neurons involved in the exteroceptive function of pain", in: *Pain*, Vol. 106 (3), 2003, 215-219.

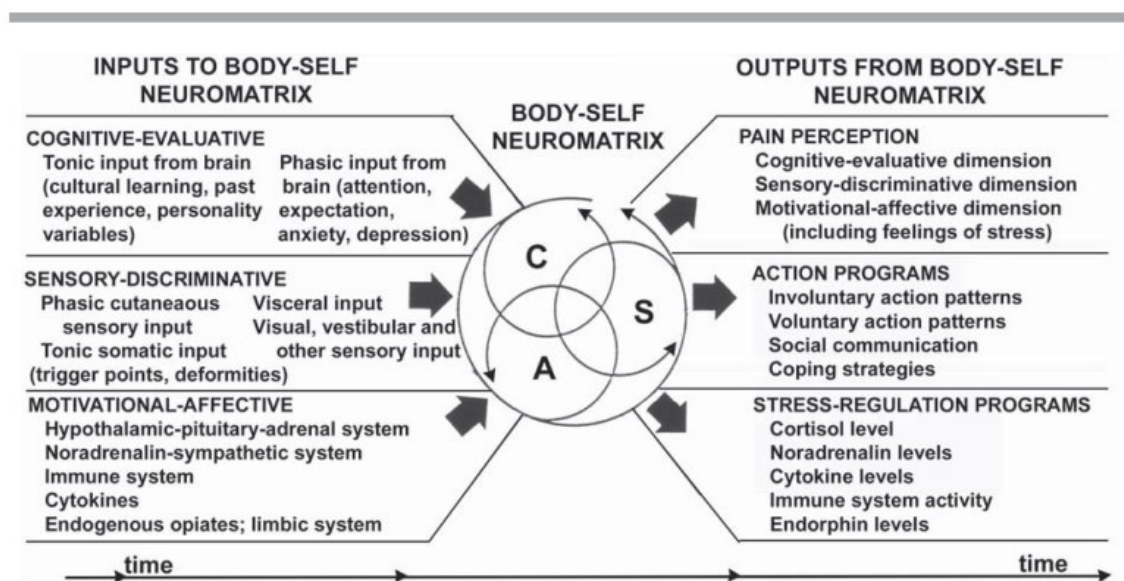
⁶⁰ Cf. Asma H. Ahmad, Che B. Abdul Aziz, "The brain in pain", in: *Malaysian Journal of Medical Sciences*, Vol. 21 (Special December Issue), 2014, 46-54.

⁶¹ Cf. Corns, *Complex Reality of Pain*, 114.

phantom limb pains and chronic pains are those that need further elaborating as they aren't explained satisfactorily by peripheral and spinal processes.⁶²

To achieve an explanation, Melzack introduces a new concept of the nervous system, labelled the body-self-Neuromatrix. It is argued to be a widespread network of neurons consisting of loops between the thalamus (regulating motor signals, awareness, and many others) and cortex (many functions, including sensation processing and somatosensation) as well as between the cortex and limbic system (emotion responses, behaviour, etc.). These loops also converge and synthesize. A certain synthesis that is repeatedly used as a pattern for processing is called a neurosignature. Said neurosignature is therefore a pattern of nerve-impulses imprinted on the Neuromatrix.⁶³

As for pain, a specified neurosignature is produced for pain experiences, determined by the architecture of the Neuromatrix and produced by genetic and sensory influence. That neurosignature is also modulated by cognitive events, such as psychological stress.⁶⁴ Melzack therefore explicitly emphasises the role stress plays in experiences of pain. He presents this illustration of his new concept:



(Figure 3: Neuromatrix Illustration, taken from Melzack 2001)

⁶² Cf. Ronald Melzack, "Pain and the Neuromatrix in the Brain" in: *Journal for Dental Education*, Vol. 65 (12), 2001, 1378.

⁶³ Cf. Ibid.

⁶⁴ Cf. Melzack, "Pain and the Neuromatrix in the Brain", 1380.

The body-self Neuromatrix is said to link cognitive (C), sensory (S), and affective (A) neural processes. Further, it receives input from each of these dimensions, and outputs them in the same multidimensionality according to the neurosignature of the person (again, which is shaped by psyche, genetics, etc..).

The value of this theory is manifold. For one, it aims to answer questions about the most challenging pains to explain (and treat), namely chronic and phantom limb pains. Where other theories leave those blank, Melzack is mainly motivated by them. Followingly, the Neuromatrix theory also aims at encompassing most token pains in its concept for processing and generating of pain experiences.

Corns formulates criticism: for one, the concept of the Neuromatrix is far too schematic. It could be applied to determining subjective, qualitative experiences, but no specific determinants of pain are listed. In this conception, the neurosignature might apply to pain, but might also apply to every other qualitative sensory experience that leads us to react cognitively and emotionally. She claims that Melzack does not even attempt to identify any components or activities particular to pain as opposed to any other bodily experience.⁶⁵ This might result in a strong argument for inclusion of most token pains, but also burdens the theory with a diminished explanatory power of what pain is.

Whether the theory is granted to be sound or not, the result is the same. No explanation of a pain mechanism is delivered here.⁶⁶

1.2.6 The absence of a dedicated pain mechanism

We have now reviewed the most prominent theories of pain established. As of today, there seems to be no identification of a dedicated pain mechanism or system.⁶⁷ We have uncovered mechanisms partially involved in pain, such as nociception, homeostasis, motivational aspect, motoric reactions and many more. However, these are all mere parts of pain, not its backbone and much less its definitive mechanism. The presented theories of pain can therefore only hope to explain single token pains, while not explaining yet others. More importantly, they struggle to explain pain as a whole. Even when several token pains are regarded to be of the same type, the types themselves still diverge heavily in their explanations. For instance, there is no

⁶⁵ Cf. Corns, *Complex Reality of Pain*, 117.

⁶⁶ Cf. Corns, *Complex Reality of Pain*, 119.

⁶⁷ Ibid.

explanation that encompasses the three types of pain that are acute pains, inflammatory pains, and chronic pains.⁶⁸

What does this mean for our inquiry? Let us reconnect with our discussion of natural kinds in 1.2.: we stated that for something to be a natural kind, it must be usefully referenced scientifically. Further it must be something that we can trace to exist outside of human rationalization. As of now, no pain mechanism seems to exist, pointing us to believe that pain is no natural kind. This also leads us to believe that we can, in a medical and scientific context, not assume pain to be, what our folk platitudes ascribe it to be. Yes, pains are uncomfortable, they have multiple dimensions to them (sensory, cognitive, emotionally-affective), and they motivate us to act. Perhaps they also inform us about imbalances. It is not that the conclusions of these theories are necessarily wrong, it is that none of them sufficiently explain pain. They, again, at best explain token pains. Medicine and scientific research have therefore not helped us achieve the goal of a definition of pain. This does not necessarily mean that none ever will. However, currently we do not know what pain is to satisfactory degree. In the meantime, we recommend treating term *pain* like others that do not fulfil the criteria of being a natural kind: With a healthy dose of suspicion and under lookout for parts that form the whole.

Perhaps it is time to look elsewhere for an explanation. As medical research has not yet provided a sound definition for pain, perhaps the analytical capabilities of philosophy can contribute to this cause.

⁶⁸ Cf. Corns, *Complex Reality of Pain*, 121.

1.3 Philosophical Positions on Pain

Inquiries about pain usually originate from the philosophical traditions investigating the mind, perception, and phenomena. These traditions bring with them the analytical tools for differentiating different aspects of pain, but also bring with them their metaphysical commitments, as will be evident shortly. The following chapter examines how pain is classified in contemporary philosophy.

To be in pain is to have an experience. Therefore, we begin our inquiry with a look at the backdrop from which an experience can arise. Philosophy presents the concepts of *mental states* and *intentionality* to hold most explanatory power as to how and why we are able to perceive things and generate experiences. Once we have gained the terms, we enter contemporary philosophy of pain. It is the current understanding of most philosophers that pain experiences have a certain quality to them. What a pain quality is supposed to entail and how each position argues for their respective quality is then presented.

Did philosophers ultimately succeed in identifying a distinct quality that inhabits all pain experiences? We argue that they haven't succeeded. Further, we argue that this approach to subscribing to a pain quality is not just an inquiry into perception. We believe that a quest for a defining quality is a metaphysical commitment pain resists to burden itself with. Pain experiences are so highly diverse that no quality, or at least none of the currently presented qualities, manage to encompass enough distinct pain experiences to be considered true. Therefore, it is concluded that philosophy has not identified a pain quality, and that it folds under its own metaphysical commitments.

1.3.1 Mental States, Reference, and Intentionality with regards to pain

In philosophy, especially in theories of the mind, a person's consciousness is explained as subsisting in distinct mental states.⁶⁹ Perceptions, thoughts, believing, grieving, assessing, etc. are all mental states, ascribing a certain modality to our current mode of consciousness. Of course, they aren't exclusive to one another. A person can be in multiple mental states, for instance when they are both perceiving something, in addition to desiring something else. There is also no consensus of whether agents must be conscious to be in mental states. Some argue

⁶⁹ Jacob Berger, "Mental States, Conscious and Nonsconscious", in: *Philosophy Compass*, Vol. 9 (6), 2014, 392.

that a condition for consciousness (as in, being in a mental state) must entail one to be conscious, others deny that necessity.⁷⁰

Mental states posit a qualitative stance our consciousness is said to take. There is a certain likeness – a *what-it-is-like* that defines the specificity of mental states. For our consciousness, so the theories propose, the experience of remembering something, seeing something, or wishing for something all leave different marks on the mental, or consist of an experiential quality that is unique to them.⁷¹⁷² What exactly this mental is, is not decisively clear yet. Some consider it the result of neurological processes hoping that conscious states could be traced to certain brain functions. These theories, for instance the computational theory of mind, thus hope for a naturalization of the mind.⁷³ Yet others, consider consciousness more platonic as there is no empirical framework that has yet successfully explained mental states.⁷⁴ The mind-body problem is certainly invoked here. Be that as it may, as of today the term of *mental state* is such philosophical habit, that it is more presupposed than argued for. Therefore, we consider ourselves justified in using the term in its generic manner.

Mental states are, broadly speaking, the different things we described above. One particular problem that arises from this category is its very broadness. Some mental states are directed at things of the outside world (being extra-mental, perceptive), such as perceptions, yet other mental states are directed inward (being mental, introspective). Further, there are conscious states of a meta-psychological kind. Those are referred to as self-conscious states in which, for instance, a person not only experiences their grief but experiences themselves as the experiencer of grief.⁷⁵ Some, attribute to mental states a genuine incorrigibility.⁷⁶ This means that, we should treat sincere first-person accounts as incorrigible with regards to the experience. For instance, I might see something that is not really there, in which case I am wrong about

⁷⁰ Cf. Berger, “Mental States, Conscious and Nonconscious”, 393-396.

⁷¹ Cf. Thomas Nagel, “What Is It Like to Be a Bat?”, in: *The Philosophical Review*, Vol. 83 (4), 1974, 436.

⁷² Cf. Richard Rorty, “Incorrigibility as the Mark of the Mental”, in: *Journal of Philosophy*, Vol. 67 (June Issue), 1970, 401.

⁷³ See: David Pitt, “Mental Representation”, in: Edward N. Zalta (ed.): *Stanford Encyclopedia of Philosophy*, 2020; Chapter 3: Conceptual and Non-Conceptual Representation examines the phenomenal content of such mental states.

⁷⁴ See: Pernu K. Tuomas, “The Five Marks of the Mental”, in: *Frontiers in Psychology*, Vol. 8, 2017; Identifies criteria that set apart mental from physical impressions.

⁷⁵ Cf. Rocco J. Gennaro, “What is the Structure of Self-Consciousness and Conscious Mental States?”, in: *Review of Philosophy and Psychology*, Vol. 13 (2), 2022, 295-309.

⁷⁶ See: Rorty, “Incorrigibility as the Mark of the Mental” and R.I. Sikora, “Rorty's Mark of the Mental and his Disappearance Theory”, in: *Canadian Journal of Philosophy*, Vol. 4 (1), 1974, 191-194.

facts of the real world. What I am not wrong about, however, is my experiencing of said visual appearance.

The category of mental states has now been established – the what-it’s-like for me to undergo a certain experience. It is then time to proceed to another important concept, namely *intentionality*. Where mental states are the *like*-ness of an experience, intentionality is its *about*-ness. More precisely, it is the directedness, the ability to represent, or to be engaged with things, affairs, concepts, and properties.⁷⁷ Intentionality is not to be confused with the everyday formulation of having intent, or intention. The latter signifies a certain aim or deliberation about an act. This is not the case for intentionality of mental states. One can find themselves in a mental-state entirely involuntarily, and that mental state can still be directed towards something or be about something. On top of that, the object of intentionality does not have to exist.⁷⁸ One can feel closeness towards a person in their lives, but also towards a fictitious character. But is everything then suited to be the intentional content of our mental states? One requirement at least, seems to be that intentionality requires reference. Thinking about something, requires the ability to reference it. For reasons of comprehensiveness, it might be adequate to add that this appliance of intentionality is not one that all philosophers had agreed on. Some believe that referring to non-existing objects is to not successfully refer, given that those objects are not given to us through sensory phenomenal features⁷⁹ Without invoking the whole discourse on philosophy of mind and language, we shall briefly present three conceptions of referencing that confirm that we can successfully talk about pain:

- 1) Gottlob Frege’s *Sinn* (sense) and *Bedeutung* (reference) argue that the presentation of an entities propositional values happens through *Sinn* (sense), whereas the thing that we reference is *Bedeutung*. When making ideas accessible through language, we portray a certain sense. What matters in a propositional presentation of an object is not the ontological status of the object itself, it’s *Bedeutung*, but rather we always deal with a reference’s mode of presentation, it’s sense – *Sinn*. Therefore, multiple, even contradicting, opinions and statements about the same thing are possible (even if logically flawed).⁸⁰

⁷⁷ Cf. Pierre Jacob, “Intentionality”, in: Edward N. Zalta (ed.): *Stanford Encyclopedia of Philosophy*, 2023.

⁷⁸ Cf. Deni Frisette, “Brentano on Presenting Something as an Intentional Object”, in: Fosca Mariani-Zini (ed.): *The Meaning of Something: Rethinking the Logic and the Unity of Metaphysics*, 2022, 8.

⁷⁹ Cf. Pitt, “Mental Representation”, 2020.

⁸⁰ Cf. Gottlob Frege (1892), *Über Sinn und Bedeutung*, in: Uwe Voigt (ed.): *Reclam - Great Papers Philosophie*, Ditzingen 2019.

- 2) Bertrand Russell's notion of reference states that names (for instance, *pain*), are not genuine logical entities, but rather a cluster of definitive descriptions. To reference pain, is to refer to a certain set of descriptive sentences about the thing I generalize to be pain. Existence is one description among others, whose totality constitute a name.⁸¹
- 3) Kripke states that names are invented tags that refer directly to an object, not by description. A given name is then re-used by others and on thus only holds its referential ability through convention. These names can however be applied to non-existing objects.⁸²

All these prominent theories hold the view that we can successfully refer to objects that do not exist. What this non-existence means for propositions *of* entities, is a different story, as well as how these theories get to their conclusions. We do not claim that Frege, Russell and Kripke agree about reference, language, and logical propositions.⁸³ Rather, we took this detour about theories of language in order to correctly state: Whether pain is a natural kind, or not, we can successfully reference it. Further, even if pain does not exist beyond being a phantasm (which we're not claiming it is) we can still successfully reference it. Its *de facto* existence is not required. All our sentences about pain still hold meaning. With referencing being possible, it follows that our mental-states can also be *about* pain, regardless of its ontological status. Pain is suited to be the intentional content of our mental states. We may state, without hesitation, that we have perceptions, desires, thoughts, feelings, and other mental-states all *about* pain.

Most theories of pain are – at least to some capacity – intentionalist accounts.⁸⁴ That means that they claim the experience of pain is fundamentally about something – that it has intentional content. Yet, what this *aboutness* is supposed to be, is still highly debated. This aboutness constitute a supposed *quality*, which supposedly is endemic to all experiences of pain.

1.3.1 Perceptual and Representational Theories of Pain

This theory of pain invokes theories of *representationalism* previously made in philosophies of perception and mind. According to it, our experiences fundamentally represent a state of

⁸¹ Cf. Bertrand Russell, "On Denoting", in: *Mind*, Vol. 14 (56), 1905, 479-493.

⁸² Cf. Saul A. Kripke, "Naming and Necessity", in: Davidson and Harman (eds.): *Semantics of Natural Language*, 1972, 253-355.

⁸³ Note: It is of course the fact that they did not agree on many points about language and logical propositions. Russell and Frege are descriptivist theorists, whereas Kripke is attributed to a causal theory of reference. For more on the disagreements, See further: McKinsey, *Kripke's objections to description theories of names*, 1978.

⁸⁴ Cf. Corns, *Complex Reality of Pain*, 32.

affairs about the world. When looking at a red ball, for instance, we do not experience a red ball directly. Rather, we experience a representation thereof. This stands in contrast with theories of *naïve realism*, that believe no such abstraction to take place.⁸⁵ Representation can come in the form of making thoughts accessible. For instance: my desire to drink coffee is about the fact that I want to drink my coffee.⁸⁶ My experience of craving coffee represents my want of drinking the coffee. This does not only apply to entirely mental episodes such as wishing, fearing, anticipating, etc. but also to sensations and perceptions. The qualitative character of an experience is explained by what and how it represents.⁸⁷ According to the Perceptual-representationalist theory of pain (PRT), representational content and phenomenal content are the same.⁸⁸ This means that all we experience is a representation. (although some argue that an evaluation is also experienced).⁸⁹ Adding to this the intentionality of pain, an experiences representational content is also its intentional content. The result of these relationships is that intentional content, representational content, and phenomenal content of an experience converge.

In a less technical formulation: When in pain, we experience a representation of something. In addition, this representation has content, is *about* something. As Corns puts it: “One way for something to be about something is to represent it.”⁹⁰ This about-ness defines the *quality* of our pain-experience.

What is represented in our experience of pain then? What are experiences of pain about? Stances aren’t unanimous here. One school of thought argues that having pain represents bodily tissue damage.⁹¹ What I experience is a representation of bodily tissue damage. Pains intentional content (its aboutness) is its representational content of tissue damage. My elbow hurts because something is wrong with my elbow. My pain is my phenomenal access to my elbow’s underlying tissue damage. Authors of the PRT here take up what our everyday-notion

⁸⁵ Note: David M. Armstrong, *Bodily Sensations*, London 1963 heralded the notion of representationalism.

⁸⁶ Note that it is not about coffee per se, it is about the want of it.

⁸⁷ Corns, *Complex Reality of Pain*, 44.

⁸⁸ See: Michael Tye, “Representationalism and the Transparency of Experience”, in: *Nous*, Vol. 36 (1), 2002, 137-151.

⁸⁹ Of course, not all forms of representationalism hold this belief to such a strong degree. Variances between strong and weak representationalism and other adjacent schools of thought argue about this.

⁹⁰ Corns, *Complex Reality of Pain*, 43.

⁹¹ See: Aydede, *Pain*, 2019.

of pains already assume – that pain is fundamentally about something in a bodily location. The disturbance in a location *is* what we find our experiences to be about.⁹²

One challenge to this is the negative connotation of pain. Cutter & Tye argue that the traditional representationalist theory of pain can argue for the locality and experience of pain. What it cannot argue, is the fact that pain hurts. Pain informs us about something in a bodily location. That, however, does not necessarily entail that it must hurt. It could also inform us gently, but it doesn't. Their solution is the formulation of a *tracking* representationalism. In contrast to traditional PRT, the representational content of pain is not exhausted by information about bodily location and type of bodily disturbance.⁹³ To explain pains "painfulness", Cutter & Tye argue that valuational properties (such as the badness, or goodness of something) are causally efficacious. This means, that valuational properties influence what happens in the world and that, in addition, they are tracked by our internal states. What happens to an agent, and what their experience represents, can have degrees of goodness and badness specific to them.⁹⁴ An agent therefore perceives their tissue damage as painful, as the painfulness (the valuational property) is causally efficacious for what happens to me.

Our reading of Cutter & Tye's *tracking representationalism* is that pain's painfulness is part of its representational content because the painfulness is part of the state of affairs that we represent to begin with. Tissue damage happens to us *as* bad. While painfulness is still not objective in this manner, as it comes in subject-indexed degrees, we cannot help but read a slight essentialism *to* their notion of valuational properties. Perhaps we are wrong in this assessment, though. Regardless of this assessment of ours, the mental episode as presented by Cutter & Tye is *about* not only bodily location and damage, but also about how harmful said damage is for the agent.⁹⁵

Another challenge to representationalism is the possibility of *misrepresentation* as it is formulated by Corns:

⁹² Brian Cutter, Michael Tye, "Tracking Representationalism and the painfulness of pain", in: *Philosophical Issues*, Vol. 21, 2011, 92. Further see David Bain: "Evaluativist accounts of pain's unpleasantness" in: Jennifer Corns (ed.): *The Routledge Handbook of Philosophy of Pain*, New York & London, 2017, 40-50 for an evaluativist account that is based on extra-mental representation.

⁹³ Cf. Cutter & Tye, "Tracking Representationalism and the painfulness of pain", 94.

⁹⁴ Cf. Cutter & Tye, "Tracking Representationalism and the painfulness of pain", 98.

⁹⁵ Cf. Corns, *Complex Reality of Pain*, 46.

“As pains are those mental episodes which represent located bodily disturbances, if there is no such located bodily disturbance, then the pain is misrepresenting the world [...] then the pain will be hallucinatory.”⁹⁶

This is a fairly intuitive objection in our estimation. How can something claim to represent a state of affairs, when that state of affairs isn't the case? In that case, it has to be a hallucination, or an illusion. But can we hallucinate pain?

The question about hallucinations proposes a challenge for representational theories of pain, although they themselves do not necessarily view it as such. If I see an oasis that isn't really there, I am visually experiencing something that does not represent a true state of affairs about the world. There is no oasis, only thirst. Yet, my experience of perceiving an oasis still takes place. Pain is a little different in that regard. For one, it does not follow standard rules of perception. The existence of an oasis can be verified or denied, regardless of my experience. From there, one can infer about the nature of my experience, what I can see or what I shouldn't see. Pain, however, does not lend itself to that sort of verification. If I am experiencing pain, then someone else cannot verify that there is in fact no pain. Pain starts to exist the moment I perceive it, an oasis does not. Or in other words, as I hallucinate pain, it comes into existence – is it then still a hallucination?

One possible answer to this question challenges the object of representation. The PRT, as per being a perceptual theory, must grant pain to wrongfully represent. Otherwise, it wouldn't be perceptual anymore, but introspective. Nonetheless, it is not self-evident that it is *bodily* disturbances we experience via pain. No, at least intuitively, we experience pain itself. Typically, we do not react with “oh right, I experience a bruising of this nerve specifically in my elbow”, rather we just *hurt* somewhere, somehow. Then, other impressions may or may not follow. The physical disorder is the cause of our pain, but it *is* not our pain.⁹⁷ The cause of a bodily disturbance and the disturbance are not the same thing, just like food and my experience of satiation aren't. Opponents of the PRT therefore ascribe to it a certain confusion about what they believe pain to represent. This challenge to representation is also backed up by our intuitive notions that pain is equally unpleasant whether it correctly represents or misrepresents a bodily disturbance.⁹⁸

⁹⁶ Ibid.

⁹⁷ Murat Aydede (2016), “Pain: Perception or introspection?”, in: Jennifer Corns (ed.): *The Routledge Handbook of Philosophy of Pain*, New York & London, 2017, 3.

⁹⁸ Aydede, *Pain*, 2019, Chapter 4.2.

A second answer to the predicament of pain-hallucinations is provided by Aydede through the following example of misrepresentation with regards to hallucinations:

“Suppose there is in fact no tissue damage or any kind of physical disorder or disturbance in my elbow. I feel pain in there because I have a pinched nerve in the relevant part of my spine. This would not make my belief/report that there is a pain in my elbow incorrect. It would still be true that there is a pain in my elbow if I truly happen to feel a pain there. Compare a similar scenario in a genuinely perceptual case: if I come to believe that there is an apple in front of me on the basis of my visual experience (if I seem to see an apple and report the presence of an apple on that basis), when in fact there was no apple and I was simply hallucinating, my belief/report would be *incorrect* and my visual experience would be non veridical, hallucinatory. But no such thing happens in cases where we *feel pain in a bodily part in the absence of any physical disorder in those parts*. In such cases, we continue to *correctly* judge that we have pain *in those bodily parts*. Thus, we do not have pain hallucinations.” (Aydede, M. For the Routledge Handbook of Philosophy of Pain (edited by Jennifer Corns, 2))

Evidently there are misrepresentations of pain, even with visible tissue damage, as described by Aydede above. Yet sometimes there is no tissue damage or bodily disturbance to be found at all. Take for instance, the case of chronic pains that often have no underlying tissue damage and whose origin is still a mystery to both patients and professionals. See again Kusch & Ratcliffe 2018: after surgery, years of pain and several changes of medications, therapies and doctors, no origin to the chronic pains in Kusch’s jaw have been found. Many chronic-pain-patients share a similar story. In our mechanistic explanations above the neuropathic pains (read: chronic pains) are the least illuminated by the scientific community in large part *because* chronic pains do not seem to fulfil this representational function ascribed to pain by the PRT. Another case are phantom pains. How would a pain represent a local disturbance when neither the disturbance, nor even the locale exists anymore? People with phantom limb pains report pains that lie outside of their bodies.⁹⁹

⁹⁹ Lauren M. Mioton et al., “Targeted Muscle Reinnervation Improves Residual Limb Pain, Phantom Limb Pain, and Limb Function: A Prospective Study of 33 Major Limb Amputees”, in: *Clinical Orthopaedics and Related Research*, Vol. 478 (9), 2020, 2161-67.

Cf. Anna Stankevicius et al., “Prevalence and incidence of phantom limb pain, phantom limb sensations and telescoping in amputees: A systematic rapid review”, in: *European Journal of Pain*, Vol. 25 (1), 2021, 23-38.

The problem that opponents formulate, is that the PRT allows for pain-hallucination and misrepresentation. Therefore, Corn's states, the PRT would have to classify the following pains as not being pains, or cases of hallucination or illusion: Pains after healing, Pain before damage, Referred pains, phantom limb pains, chronic pains. Headaches, as described in our mechanistic explanation above, would be part of this list. The types of pain listed above do not correlate with tissue damage.¹⁰⁰ And reversely, there are also plenty of cases where reported tissue damage persists without accompanying sensations of pain.¹⁰¹

We may conclude that perceptual-representationalist views of pain identify the pain *quality* in its representation of a bodily disturbance. My experience of pain is fundamentally about me having tissue damage. While the defendants of the PRT have made efforts to include non-perceptual components such as evaluation, hallucination, subjectivity and incorrigibility of pain, the core claim of representation is debated. Its virtue lies in providing an explanation that can entail a naturalization of our mind, a materialist reason as to why we experience what we experience. The PRT is willing to grant pain its status as an introspective, incorrigible experience, but it still claims that it represents an extra-mental state of affairs regarding the world.

Nonetheless, we conclude that the correlation between pain and tissue damage is not strong enough to argue for representation in all or most cases. We agree with Corns, that it seems unlikely that chronic pains are mere hallucinations or physiological and psychological misrepresentations. It is hard – and somewhat dismissive – to believe that people undergo surgeries and suffer for years due to an illusion. It is also unintuitive for Corns, and us, to believe that our headaches are hallucinations, just because there is no tissue damage to be found surrounding the brain and skull.¹⁰²

1.3.2 Evaluative Theories of pain

Where Representationalists see the quality of pain to lie in its ability to represent bodily disturbances, evaluative theories take a different approach. Also, an intentionalist account, *Evaluativists* (also named *Imperativists* in some of the literature) claim that the defining quality of pain experiences lies in its motivated evaluation. Pains hurt, feel bad, make us desire their cessation, motivate us to act, make us sad, anxious, or worried. According to Evaluativists, the aboutness of pain lies in what it expresses and what it makes us do. It is important to note that

¹⁰⁰ Cf. Corns, *Complex Reality of Pain*, 49.

¹⁰¹ For an account of such painless tissue damage, see Jennifer Corns, *Complex Reality of Pain*, 2020, 52.

¹⁰² Note: See again our passage about Migraines in Chapter 1.3.1.

some Evaluativists accept the representational theory, claiming pains suffering to correlate to physical tissue damage and thus motivating us to change that state of affairs about the world and ourselves (see Bain 2013; Tye 2006; Cutter & Tye 2011), whereas other accounts reject this representation and claim the intentional content of pain to be *only* imperative (Klein 2015).¹⁰³

At this point, one could be reminded of the homeostasis emotion theory by Craig. According to it, pains inform us about physical imbalances – homeostatic emotions – such as itches, thirst, or hunger. Klein 2015 is a very prominent source for this approach. He accepts the homeostatic emotion theory and expands it by ascribing pains imperative to be its defining quality.¹⁰⁴ However, he also rejects the representational aspect of pain, agreeing with our criticism above about the weak correlation between pains felt and tissue damaged.¹⁰⁵ Kleins states that pains are first and foremost protection imperatives. To feel pain is to receive a command to protect a particular part of the body, in a particular way, with a certain sense of urgency. To Klein, these are the contents of a painful sensation.¹⁰⁶ The pain of a broken ankle is therefore not just an information about tissue damage (as claimed by the PRT), but rather it is a command “Hey, stop putting weight on me!”. Pain is therefore an evaluation of how badly we are injured, where we are injured and how badly we are injured. Secondly, it is an imperative, because we ascribe to these injuries a certain set of commands that aim at motivating certain actions while inhibiting others. My broken arm is so painful *because* it commands me to not move it. Imperatives express commands instead of propositions.¹⁰⁷

What does it mean to have an imperative instead of a proposition? Propositions are generally true or false. My claim that a red ball is in the room with me is false, if there is none. If I still see one, I must be hallucinating. As explained in our previous chapter, representationalist accounts of pain deal with those propositions. Pains can be genuine, or true, if they represent a bodily disturbance. If they do not, they are pain-hallucinations. Imperatives are different from propositions in that they are not true or false, but rather *satisfied* or *unsatisfied*. My cat is only

¹⁰³ See: David Bain, “What Makes Pains Unpleasant?”, in: Philosophical Studies, Vol. 166 (1), 2013, 69-89; Michael Tye, “Another Look at Representationalism about Pain”, in: Murat Aydede (ed.): *Pain: New Essays on its Nature and the Methodology of its Study*, Massachusetts 2005, 99-120.

¹⁰⁴ See: Klein, *What the body commands: The imperative theory of pain*, 2015.

¹⁰⁵ Cf. Klein, *What the body commands: The imperative theory of pain*, 27.

¹⁰⁶ Cf. Klein, *What the body commands: The imperative theory of pain*, 57.

¹⁰⁷ Cf. Klein, *What the body commands: The imperative theory of pain*, 58. References John R. Searle, Daniel Vanderveken, *Foundations of Illocutionary Logic*, Cambridge UK, 1985 for the distinction between imperatives and indicatives.

satisfied in her imperative of “feed me!” once there is food in her bowl. I’ve tried arguing with her about her not being *truly* hungry as she had just eaten, but to no avail. Therefore, imperatives can also be *legitimate* or *illegitimate*. Legitimacy of an imperative is derived from the authority of the imperative which arises from the context it is embedded in. I remember that my cat is not my boss and that her imperative is illegitimate. I walk away. Nonetheless, satisfaction and legitimacy are not entwined. Illegitimate imperatives can be satisfied, and legitimate ones ignored.

Pain is no different here. There are several different imperatives that pain informs us to adhere to. Some are legitimate when there is actual tissue damage found, others seem less legitimate (although they still might be, and we just do not know it yet). Klein identifies the following types of imperatives:

Stop Imperatives: Pains make an imperative against taking an action. They tell us to stop doing what we are currently doing with a bodily part. One such notion of pain imperatives is seen in Hall 2008.¹⁰⁸

Proscription Imperatives: Instead of saying “Stop what you’re doing!” the pain tells us to not engage with something in the first place. It is a standing order of sorts.

Removal imperatives: This kind of imperative tells us *Do not have this bodily disturbance!*¹⁰⁹ Rather than focusing on an action, this understanding of imperative tells us to remove a state we are in.¹¹⁰

Pains are imperatives that command us to protect a bodily location. That command also has a content, which is the condition for its satisfaction. My removal imperative is satisfied once the bodily state we’re in has been changed. Stop imperatives are satisfied once we’ve stopped whatever acute action we’ve taken.

This is the imperative content, that Evaluativists and Imperativists claim pain to be *about*. As mentioned, some of them agree on representational accounts and see the imperative as an addition to the more important information about tissue damage (again Bain, Cutter and Tye), while some formulate a hybrid thesis of pain having both an imperative and indicative function (Richard Hall), and yet others reject the indicative notion and focus purely on pains imperatival

¹⁰⁸ Cf. Richard J. Hall, “If it itches, scratch!”, in: *Australasian Journal of Philosophy*, Vol. 86 (4), 2008, 525-535.

¹⁰⁹ See: Manolo Martinez, “Imperative content and the painfulness of pain”, in: *Phenomenology and the Cognitive Sciences*, Vol. 10 (1), 2011, 8-10.

¹¹⁰ Klein: *What the body commands: The imperative theory of pain*, 68.

content (Colin Klein). According to Imperativists, be they Representationalists or not, the *quality* of the pain experience lies in the command we receive, and our subsequent motivation to act on it.¹¹¹

Corns formulates some criticism on this supposed quality: If pains are here to command me towards taking a bodily action, then other homeostatic emotions would need to be pains too. Itches, thirst, and hunger are too essentially *about* commanding us to do something. For instance, all the types of imperatives presented by Klein could be applied to hunger. *Stop fasting* (stop imperative), *do not stay hungry beyond an acceptable threshold* (proscription imperative), *remove this state of hunger* (removal imperative). Therefore, we could run into the problem of defining the imperatives too strictly, which would perhaps exclude many forms of pain, or too loose whereas sensations that aren't pain would be included with this quality.¹¹²

Let us think back to healthy pains such as menstrual pains. What do they command their recipients to do? Klein gives a few answers regarding menstruation to be an imperatival analogy to child-birth and therefore painful. Corns is not convinced, and we must add emphatically that neither are we. Menstruation pains do not seem to motivate any behaviour that would substantially make them better.¹¹³

The issue of the Imperativists is not that pains are devoid of commands they issue to us. It is rather, that they aren't necessarily *about* that command. Many pain experiences contain commands, but not all of them. Pain is also not always necessarily a command of cessation: How do masochists experience their pain? Do they receive a *Stop!* command and take pleasure in ignoring it, or is their pleasure derived from the sensation alone, and therefore not a command at all? Or is it that pain loses its imperatival content once it is linked to cohabiting non-painful stimuli, such as sexual arousal or the excitement of extreme sports? When and how does the *Stop!* turn into a *More!*? These are some interesting and challenging puzzles for the Imperativists.

As for the purpose of this thesis, it is concluded that the imperativist account of pain seems plausible and partially true, but not as strong as it would want to be. It seems reasonable to side

¹¹¹ Cf. Corns, *Complex Reality of Pain*, 58-63.

¹¹² Cf. Corns, *Complex Reality of Pain*, 2020, 61.

¹¹³ Cf. Klein: *What the body commands: The imperative theory of pain*, 115. Cf. Corns: *Complex Reality of Pain*, 69.

with Corns in doubting that the imperative is the intentional content of pain and thus the defining pain quality. Rather, it seems to be yet another quality among others.

1.3.3 Excursus: Pain as *Stimmung* – a brief sketch for a non-intentional account of pain.

With this small sketch it is our intention to present an original idea we do not see represented in the current philosophies of pain. Perhaps this speaks to its invalidity. Yet, it is hoped that this line of thought could be considered fruitful.

As seen, most accounts of pain are intentionalist accounts. Pain is about something, directed if one will. Reading Kusch & Ratcliffe 2018, we couldn't help but think of pain as something that is not about, something but rather that gives rise to the intentionality of other experiences. Kusch describes how pain has led him to think and feel in a somewhat infantile manner.¹¹⁴ The Doctor or therapist took the place of a father figure that must be obeyed and who commands one's actions during treatment. In situations of illness many people will find themselves relating to this position. Further, chronic pains made Kusch think of the people in his lives as either those who supported him actively or those who were indifferent to his suffering.¹¹⁵ It seems that pain is not only something that is happening to Kusch (and many other pain patients), but something that has the ability to change how we experience other, non-pain-related things.

Following Husserl's *Epoché*, Martin Heidegger instantiates his notion of *Stimmung* (mood). *Stimmung* is translated as mood, but in a literal sense is closer to the English word "attuned". When I am in a *Stimmung*, a mood, I am rather attuned in a certain manner, similar to an instrument. A guitar in a certain tuning will produce a certain set of sounds with a pitch to them. The same notes or chords played will be higher or lower, depending on the current tuning of the guitar. *Stimmung* is similar in that regard: *Stimmung* is the way in which one has a world. It is the backdrop to our *Dasein*. Finding ourselves in the world, through a *Stimmung* is our *Befindlichkeit*.¹¹⁶ (a term almost impossible to translate, but for the purpose at hand we suggest "affectivity" or "condition"). Everything we experience is therefore experienced *through* our *Befindlichkeit*. For instance: A person with an anxiety disorder is certainly

¹¹⁴ Cf. Kusch & Ratcliffe: *The World of Chronic Pain*, 6.

¹¹⁵ Cf. Kusch & Ratcliffe: *The World of Chronic Pain*, 4.

¹¹⁶ See: Matthew Ratcliffe, "Why Mood Matters", in: Mark A. Wrathall (ed.): *The Cambridge Companion to Heidegger's 'Being and Time'*, Cambridge UK 2013.

frightened by things happening inside the world. But that would be mere fearfulness. What separates an anxiety disorder from fear is that the world itself gives rise to fear. The anxious person is in anxious *Befindlichkeit*, composure, or stance, through which the events happening inside the world come attached with a modality of anxiety-inductiveness. An anxious person paints the world in anxious colours and therefore many things happening *in* the world (in our *Dasein*) are to be anxious or suspicious of. This is the world-shaping, or *Daseins*-modulating effect of Stimmung.

Connecting with the previous notion of intentional content with this second example: A depression can be caused by an event, but the depression itself is not tied to a thing qualitatively. Most people suffering depressive episodes will not report all but one aspects of life going well, meaningful, and being valuable. Rather, depressed people will experience things happening in the world from a depressive point of view. A job, or a relationship loses its meaning and its value, not because this particular token thing is flawed, but rather because jobs and relationships categorically lose meaning and value. Their value-lessness is now part of them. We therefore believe that Stimmung does not have intentional content, it is as a mental-state not *about* something. The intentional content of mood is still debated by philosophers; therefore, we cannot claim certainty in this regard.¹¹⁷ Our belief however is, that a day spent in autumn-like melancholy will not necessarily point towards something. Moreso, Stimmung has the constitutional power of ascribing aboutness to experiences within our lives. A person in depression might see the *quality* of a social event to be a demand, thereby being rational in avoiding them.

There is reason to believe that pain can be similar to anxiety and depression as setting our Stimmung. Perhaps pain arises from something happening in the world, but once it is here, it also shapes all other experiences coming forth. Pains can be Stimmung, and perhaps Kusch & Ratcliffe give account of that.

¹¹⁷ See: Uriah Kriegel, "The intentional structure of mood", in: *Philosopher's Imprint*, Vol. 19 (1), 2019, 1-19.

1.4 Conclusion: Moving on from metaphysical classifications.

Both, mechanistic and philosophical explanations for pain have been investigated. From nociception to the imperativist account of pain, we can but say that the phenomenon of pain is a very broad-ranging one. People have pains constantly, but for myriads of reasons. Pain also differs from person to person, even with similar pathologies. Further, pain seems to employ so many areas of our bodies and minds, that we find it challenging to pinpoint which ones those are, let alone agree on the definitive one.

It is not that all these mechanisms and qualities of pain are wrong, or absent. Rather the problem is that none of them seem to exhaustively explain pain. After having read the breakdown of pain theories, could we authentically make a statement of the kind “To have pain is to feel F because of X.”? I believe we cannot make such a statement. Some pains have nociception to them, others do not. Pain seems linked towards a certain bodily balance it commands us to uphold, yet we have many other sensations that do the exact same thing, without hurting. Some pains hurt, but some are quite pleasurable (think of massages, scratches, the soreness after sports). Sometimes pain motivates us to action in a very clear manner telling us exactly what to do. Sometimes it does no such thing. Pains can be healthy; pains can be the companion of death. Isn’t it odd, that something we find so naturally conclusive can cause such headache for the people wanting to find out what it actually *is*?

One statement suggests itself: No theory of pain, be it mechanistic or philosophical, has managed to give a comprehensive account that explains it. No dedicated pain-mechanism has been found and no definitive quality. *Pain* is therefore not sufficiently explained. In addition, it is also the case that most token pains aren’t explained exhaustively. At best, we can hope to identify and explain singular mechanisms and qualities that are mere parts of token pains. This seems to be a long road away from explaining pain as a whole.

This lack of explanatory power perhaps originates from the assumption that pain is a certain kind of thing. This *kind-ness*, we attribute to pain in all questions asked of it - be they of physiological or philosophical nature. Finding a single mechanism, or finding a definitive quality, are all statements about what pain is. This metaphysical approach of classifying pain in order to understand it, seems to reach its limits when tasked with treating patients’ pains. Our most common way of treating pains is still pain medication. While we are better off with them, than without, we need to understand that they are not a treatment of pain. Rather, one is

just temporarily prohibited from experiencing pain, which is not a cure for pain, and pain specifically.

What if no definitive answer to pains metaphysics can be found? What if pains are like the leaves on Nietzsche's tree, eternally unique bound only by their name?¹¹⁸ It is proposed, for the remainder of this text, but also in an extra-academic sense, to treat pains as individuals. A sort of pain-nominalism if you will. Followingly, pain appears to not be a natural kind. Rather, it is a "working label" we invent to categorize experiences and physiological processes we believe to be similar. Much like *air* (see Chapter 1.2), the term of *pain* is still an assumption, albeit a very familiar one. It would seem best to take each experience of pain for face value and dissect it into the different mechanisms it employs and qualities it exhibits.

¹¹⁸ Friedrich Nietzsche (1873), *Über Wahrheit und Lüge im außermoralischen Sinne*, Aus dem Nachlass, Projekt Gutenberg Edition 16, Illinois: Gutenberg. Retrieved last on Sept 7th, from <https://www.projekt-gutenberg.org/nietzsch/essays/wahrheit.html>

Part II – Ineffability of Pain

2.1. The need for communication and the difficulty of conveying pain

Pain comes in all shapes and sizes (or rather, intensities). Further, each token pain has the potential of involving different mechanisms, both physiological and mental. As seen in the Gate-Control and Neuromatrix theories of pain, the context in which pain is felt is equally constitutive for the overall experience: The “same” degree of physical pressure on tissue damage will likely feel worse in an endangering setting as compared to feeling it in a safe setting. Think of pressure that is applied to the arm either by a violent stranger surprising us with a fight or feeling it in the context of a relaxing massage. Our emotional-affective state is not the result of a pain stimulus, but part of it. Due to this plasticity of pain, we believe that assuming metaphysical properties is not too viable. Pain resists being presupposed.

As current assumptions fail to adequately encompass pain, doctors are left with the dilemma of gaining access to a patient’s token pain. After all, there is no measuring-device, as there are for other physiological processes. Electromyography (EMG) can detect and measure muscle response and electric activity in nerve responses, yet nerve responses do not strongly correlate with pain. An EMG is evidently not a pain-measuring tool. Yet, even if it were to measure nociceptive nervous stimulation in the limbs or the spine – as established above – nociception alone does not constitute pain. Further, it is also important that a token pain’s de facto intensity and its felt intensity aren’t disconnected, as is the case with other physiological perceptions. For instance, the modalities of my blood will have whatever measured amount they have. I might feel symptoms that are typical for my blood pressure or blood sugar, or I might not feel them. I might even tell the doctor that I do not feel anything, but the device will inevitably portray a de facto state of affairs.¹¹⁹ With pain, we do not have a de facto state of affairs. Pain is only there when I feel it, not when a machine tells me that it is. Pain is not made accessible by objectified observation tools.

We cannot presuppose pains existence, or its likeness, and we cannot seem to reliably measure it through devices. How do others gain access to one’s pain, then? The only way for us to know of pain’s existence is the testimony of the one undergoing it. When visiting a doctor, there is no trace of pain unless we give account of it. My bruise might hurt, it might not. The doctor

¹¹⁹ The interpretation of these de facto states of affairs and their treatments are not objective, as they are contextualized with other criteria, but the amount of dissolved glucose in my blood will be whatever the measuring device reads it to be.

might assume that it hurts, but they inevitably cannot confirm that assumption. It is only once we communicate our hurt – either voluntarily or involuntarily – that pain becomes part of the pathology. Of course, a broken arm in the emergency room might lead everyone to believe that we are in severe pain, but we do not necessarily have to be. As demonstrated in Part I, pain can be part of tissue damage, but can also occur without it, or not occur despite the damage. Only once we unmistakably give account of pain, the doctor’s suspicions are confirmed, and pain is discursively invoked into existence. We rely on communication to make our experience of pain accessible to others.

This notion of being made accessible through communication, locates pain closer to emotions than other traditional modes of perception. After all, nobody can be sure of us grieving or loving, unless we give sign of it. On the other hand, people can be somewhat sure in the assumption that we hear the loud ringing alarm bell, if the everyone near us can hear it too. Of course, nobody can be certain of us hearing the bell – as there is no confirmation here as well – but the assumption is rather strong. Assumptions about pain are not as strong. Dentists we have candidly asked about this topic have told us that some individuals report severe pain due to light cavities, whereas others seem to barely notice an infected dental nerve. There is no telling about how much pain a patient is in by looking at the state of their teeth, even if there are correlations at large. If a dentist wants to know the level of pain a patient is suffering, they look for the patient’s demeanour, rather than their tissue damage. The only way for them to get access to a patient’s pain is to observe them or ask about it.¹²⁰ We assume that other medical fields might share this observation.

Pain is an experience one undergoes. Therefore, the experiencing agent gets access to it through introspection (and perception, depending on theory).¹²¹ It still remains debated whether this access to one’s own pain is committed to awareness of said pain, or if perhaps we cease to be in pain the moment, we stop noticing it.¹²² Granting other people access to our pain happens through communication, be it verbal, subverbal, contextual etc.

¹²⁰ Of course, the dentist can also extrapolate the state of pain from a patient’s demeanour and facial expressions alone. In this paper we understand the term *communication* to include all forms of subverbal cues. Cases in which we focus on verbal exchange alone are explicitly stated as *saying, speaking*, etc.

¹²¹ Cf. Aydede, “Pain: Perception or Introspection?”, 5.

¹²² See: Fred Dretske: “Knowing it hurts”, in: Joseph Campbell (ed.): *Knowledge and Skepticism*, Massachusetts 2010, Chapter 9 for further discussion on the epistemology of pain. An interesting remark of his is that we can also not mistakenly believe to be in pain when we are in fact not.

Imagine this hypothetical visit to the doctor's office: we go in, we sit down, and are then asked why we are here. The answer is usually a sort of "It hurts here and here" or "when I do x, I feel pain p." This is our first attempt at putting into words what is otherwise entirely invisible to our counterpart. It is at that point that our communication mainly serves the purpose of directing the physician towards an underlying pathology. If I have a certain pain in my elbow, or when moving it a certain way, this can be a hint as to what is wrong with it, bone, muscle, nerves, or perhaps something entirely different. Pain takes a secondary role in this discourse whereas the pathology takes priority. Questions about pain aren't intrinsically interesting, rather they are valuable mostly as a track towards said pathology, which we attribute to be the cause. This hypothetical situation is the exact iteration of the disease model of pain (as discussed in 1.3.1). In that regard, we are still missing the advances of the post-disease models, such as the GCT, etc. Further, no hint of questioning the pain experience itself (as philosophers do) is to be found either.

In cases the pain outlasts the pathology, or is of deliberate concern, a few more nuanced tools can be consulted. Let us now look at some of those. A non-comprehensive list of pain assessment questionnaires would include the following: The numeric rating scale (NRS) lets the patient make three pain ratings on a scale from one to ten about the current, best, and worst state of pain experienced.¹²³ The visual analogue scale (VAS) asks the patient to mark a point on a visual scale. Then the millimetres are counted to assess the severity. (see Fig. 3)

No pain | _____ | Very severe pain

(Figure 3: VAS)

In addition, a non-verbal scale exists in the Adult Non-Verbal Pain Scale (NVPS). Here, patients are observed for their demeanour, facial expressions, and cardiac signs. This is especially useful for instances where the patient is conscious and awake, but unable to speak due to a temporal impairment or aphasia. (see Fig. 4)

¹²³ See: Margo McCaffery, Alexandra Beebe, *Pain: Clinical Manual for nursing practice*, Michigan 1989.

Adult Non-Verbal Pain Scale (NVPS)

Categories	0	1	2
Face	No particular expression or smile.	Occasional grimace, tearing, frowning, wrinkled forehead.	Frequent grimace, tearing, frowning, wrinkled forehead.
Activity (movement)	Lying quietly, normal position.	Seeking attention through movement or slow, cautious movement.	Restless, excessive activity and/or withdrawal reflexes.
Guarding	Lying quietly, no positioning of hands over areas of body.	Splinting areas of the body, tense.	Rigid, stiff.
Physiology (vital signs)	Stable vital signs	Change in any of the following: * SBP > 20 mm Hg. * HR > 20/minute.	Change in any of the following: * SBP > 30 mm Hg. * HR > 25/minute.
Respiratory	Baseline RR/SpO ₂ Compliant with ventilator	RR > 10 above baseline, or 5% ↓ SpO ₂ mild asynchrony with ventilator	RR > 20 above baseline, or 10% ↓ SpO ₂ severe asynchrony with ventilator

Odhner, M., Wiegman, D., Freeland, N., Steinmetz, A., & Ingersoll, G. L. (2003). Assessing Pain Control in Nonverbal Critically Ill Adults. *Dimensions of Critical Care Nursing*, 22(6), 260-267. <https://doi.org/10.1097/00003465-200311000-00010>

(Figure 4: NVPS)

Then there is the special case of patients that are heavily sedated, or otherwise unable to give proper signs and facial expressions. On three criteria a score of 1 to 4 is given, resulting in a total scale of pain from 3 to 12.¹²⁴ (See Fig. 5)

Behavioral Pain Scale (BPS)

Table 1. Behavioral pain scale

Item	Description	Score
Facial expression	Relaxed	1
	Partially tightened (e.g., brow lowering)	2
	Fully tightened (e.g., eyelid closing)	3
	Grimacing	4
Upper limbs	No movement	1
	Partially bent	2
	Fully bent with finger flexion	3
	Permanently retracted	4
Compliance with ventilation	Tolerating movement	1
	Coughing but tolerating ventilation for most of the time	2
	Fighting ventilator	3
	Unable to control ventilation	4

(Figure 5: BPS)

¹²⁴Jean-Francois Payen et al.: "Assessing pain in critically ill sedated patients by using a behavioral pain scale", in: *Critical Care Medicine*, Vol. 29 (12), 2001, 2258-63.

An intensive care nurse we have asked has informed us that usually a score of around 4 to 5 (independent of which criteria specifically) is the point at which pain killers, or further sedation are induced as even small signs by such heavily sedated or unconscious patients are indicative of pain.

And lastly, the famous McGill Pain Questionnaire (MPQ), in which Melzack played a role in developing. Here, patients are asked on a numeric scale, as in the NAS, however, they are also tasked with describing their pain with adjectives from a list, such as *pulsing*, *aching*, *shooting*, *boring* etc. These adjectives are believed to be indicative of categories, such as *pulsing* and *throbbing* being temporal, while *cutting* indicates an incisive pressure and *cramping* indicates a constrictive pressure type of pain. Of course, the typification of pains is questionable, and the MPQ does not claim any metaphysical certainty about their questionnaire. It is a purely pragmatic tool designed for medical situations. It is also to note that, perhaps due to Melzack's influence, the MPQ also incorporates non-physiological adjectives, such as *fearful*, *vicious*, *troublesome*, *nauseating*, etc. This seems like a very welcome addition that incorporates the multi-dimensionality of pain even into its first assessment. It is easy to imagine someone describing themselves as "having a pulsing headache" as well as a "having an agonizing headache", despite the used adjectives diverging in the type of sensation they portray.

For the purpose at hand, it is to be noted that these pain-measuring scales first and foremost look for communication cues. Verbal, or in the cases of NVPS and BPS, subverbal expressions are currently our best tool for gaining access to another person's experience of pain. Therefore, the belief is strengthened that communication is not just *a* way of accessing pain experiences, but rather it is *necessary* for doing so. At least currently, it seems that communication-independent ways of accessing someone else's pain (such as a blood-sugar test) are not yet on the horizon.

Patients and doctors alike rely on communication, that much is certain. However, communicating pain can be really difficult. Taking a look at the scales, we are inclined to think that they seem rather simple, almost primitive. Consider the MPQ: "How bad does it hurt on a scale from one to ten?". The patient answers with a number. But how much does a number, perhaps in conjunction with an adjective like *throbbing*, or *sharp*, really convey? Is the patient's answer exhaustive of their experience? In practice, it seems the answer is mainly received for the nurse or physician to dosage analgesics. After that, the topic of pain is usually pushed aside in favour of the pathology. Let us also note that none of this is due to a lack of

knowledge, interest, empathy etc. It would rather seem that talking further is simply unproductive – that no more insight could be gained by prolonging the topic.

However, in such a conversation, a certain sense of ineffability always accompanies us. Think about the complexity of pain we have established so far: the cognitive-evaluative dimension, motivational-affective dimensions, (in-)voluntary action patterns, coping strategies, aboutness-concerns, questions of representation etc. It is not that we do not feel those things, rather it is that we struggle to speak of them in a way that can be understood. It seems that the complexity of a pain experience is far greater than our sentences about it.

With this, we have arrived at the core of the problem: Pain is hard to grasp and talk about. It rejects being classified, both in terms of what it is, and what we can say about it. The reasons for this are twofold. For one, the experience itself resists metaphysical categories that are usually applied to perception. And secondly, pain resists linguistic coding, rendering it ineffable.

2.2. Explaining ineffability: Contemporary theories of the unspeakable

Some things are hard to talk about. It seems that we succeed better in talking clearly about geometric shapes or visual impressions, than we are at talking about what it feels like to love, or the details of a smell. This difficulty or impossibility of putting experiences into words is called *ineffability*.¹²⁵

It is yet an emerging topic among philosophers, linguists, cognitive scientists, and theologians. As such, the body of literature is somewhat limited, for now. Nonetheless, each field provides valuable insights and tackles the puzzles of ineffability from a different angle. Philosophers look for qualia and principles of the ineffable. Theologians link it to impressions and inquiries into the divine. Linguists investigate the capabilities of language and its limits. Therefore, ineffability sits comfortably at the intersection between cognition, language, and culture. We draw our notions for ineffability from academically diverse fields, that overlap in some of their frameworks, but also diverge in their way of argumentation. By the end, we aim to understand in what ways things can be difficult to formulate.

¹²⁵ Stephen C. Levinson, Asifa Majid, “Differential ineffability and the Senses”, in: *Mind & Language*, Vol. 29 (4), 2014, 408.

2.2.1 Levinson: Differential ineffability across the senses

Among the researchers, sociolinguist Stephen C. Levinson is one of the pioneers. He understands ineffability to be the difficulty or impossibility of putting certain experiences into words.¹²⁶ Traditionally this difficulty was mostly attributed to experiences of mysticism and religion. However, Levinson claims that ineffability is equally interesting for linguistics and cognitive sciences.

The baseline for ineffability, according to Levinson, is the *qualia*. Said qualia of an experience is its “subjective, phenomenal aspects of experience which seem to be essential for individuating sensations and feelings.”¹²⁷ We might already have a good grasp of what the subjective and phenomenal aspects of experience entail (as discussed in 1.3). However, the phrase of *individuating sensations and feelings* leaves room for interpretation. It could mean one of, or both of the following: For one, we could be individuating different types of feelings, such as hearing, being sad, or feeling pain. Or, on a more granular level, this could mean the individuating of different token experiences of the same type, such as the pain in my elbow now versus the pain in my elbow yesterday. Both interpretations are plausible. In essence, Levinson describes something like the “what-it’s-like” of an experience. The experience of redness, and with it the notion of red, is ineffable to the blind, for red is a *quale* that cannot be conveyed by any amount of description. Akin to the phenomenologist’s concept of intentional content, the quale of an experience in Levinson’s framework is necessarily private and conscious. Quale themselves are ineffable. The quale of red (redness, or what-it’s-like-to-be-red) cannot be adequately put into words to the extent that would make it graspable to outsiders. While phenomenologists share this notion of the *quality* of an experience, they do not necessarily commit to said quality being ineffable. To them, the redness of red might be ineffable, but other quale could perhaps be put into words, despite their private nature. To Levinson, the quale of an experience is necessarily ineffable.¹²⁸

Nonetheless, Levinson’s argumentation does not rely too much on qualia as metaphysical entities inherent to our language and cognition. Rather, they serve as a vehicle to point us towards a distinction between conceptual and non-conceptual content of experiences: To Levinson, an experience is conceptual in that we distinguish its type from others. Non-conceptual content is based on the phenomenology of the token experience.

¹²⁶ Ibid.

¹²⁷ Ibid.

¹²⁸ Ibid.

It might be the case that some experiences share conceptual content, while not sharing non-conceptual content. For example:

We know on a conceptual, as well as non-conceptual level what it means to visually experience geometric shapes. Given that our peers have capable eyesight and know of geometric shapes, we can share and agree on what it is to see a triangle conceptually. In addition, I can also reasonably assume that people will see the same thing and agree on the fact we see a triangle. Non-conceptual and conceptual content can vividly be shared and expressed.

In the case of red, we do know what red-ness entails conceptually, but that doesn't mean that our individual experiences of redness overlap, or that we can linguistically code them. Depending on the lighting, personal notions of colour, etc. people see colours differently. Especially the cases of colour overlap such as green-blue, red-yellow etc. leave people questioning if their token experience is currently of the concept blue, teal, or green. This divergence of non-conceptual content sometimes finds its way into social media. Think of the 2015 internet phenomenon of *the dress*, that divided people into seeing a black and blue, or a golden and white dress.¹²⁹ Even in their disagreement about non-conceptual content, people did not disagree on what black, blue, gold, and white are conceptually.

In the case of love, ineffability is likely to persist on both levels – conceptual and non-conceptual. It can be difficult to grasp love as a concept, let alone define it. People of different background might each disagree on what love is conceptually. In addition to conceptual difficulties, the token experience of love is so complex, unique, and emergent, that conveying it accurately seems impossible.¹³⁰

Summarized: Ineffability can seemingly make its way into an experience conceptually, non-conceptually, or both.¹³¹

Hence, Levinson asks first whether ineffability can truly be the case. Arguments that support ineffability are formulated along the axes of epistemic and linguistic boundedness: our mind is limited in what it can comprehend. As the divine is not something graspable to non-divine beings, it is no coincidence that religious studies were among the first to investigate the nature of epistemic boundedness. A contemporary approach to epistemic boundedness is our struggle

¹²⁹ See: https://en.wikipedia.org/wiki/The_dress

¹³⁰ Note: Perhaps it is the ineffability of love that has led to it being one of art's most important figures.

¹³¹ As Levinson & Majid put it on p.411: „The issue of lexical codability becomes more complex when we think not just of the attribute, property or object being conveyed, but the range of exemplars which are being encapsulated with a term“

to understand and grasp facts about the universe that strongly diverge from our lived reality, e.g. the concept of gravitational singularity - a point in which the space-time curvature becomes infinite. Just like moths are (probably) epistemically bound to never understand Algebra, the assumption suggests that there are things us humans cannot understand either. “There are epistemically significant constraints on the beliefs that a mind is capable of entertaining”.¹³² Therefore, facts that we are epistemically not able to entertain and experiences we are not able to have, remain ineffable to us. Another limitation to effability is linguistic boundedness. Natural languages are bound by their semantic and grammatical properties. Natural-languages are bound by what they can express. Epistemic boundedness and linguistic boundedness speak in favour for the existence of ineffability. By limits of our cognitive and language capabilities, some things cannot be thought, and others cannot be said. Therefore, they are ineffable.¹³³

Conversely, this line of thought could also work against ineffability as a concept: while languages might be finite in their words and rules, some thinkers point towards their generative properties. Languages are never finished, ever evolving. As we constantly adapt language and introduce new terms, thinkers like Tarski and Searle argue that anything that can be thought, can – in principle – be said. As per Tarski, there are no limits to which words could potentially belong to a language. The fact that we didn’t have a word for *Central-Processing-Unit* in English 500 years ago, doesn’t mean that the concept, or the thought of a token CPU is ineffable. Searle invokes the principle of expressability, which states that a given language might not be rich enough for speakers to express a certain meaning, yet there is no barrier to enriching it. Lenneberg states that we could state anything we wish in any language – the only question is how we do it. If we fail, we fail at *how* we express, not *what* we express.¹³⁴ In conclusion: if we can potentially say anything in a language due to its openness, then there is no real ineffability.

¹³²Andre Kukla, “Epistemic boundedness”, in: *International Studies in the Philosophy of Science*, Vol. 7 (2), 1993, 121-126 describing Fodor’s (1983) line of argumentation as it takes place in: *The Modularity of the Mind: An Essay on Faculty Psychology*, Massachusetts 1983. Note: In this paper Kukla advances Fodor’s concept of epistemic boundedness by other types of limitations.

¹³³ Note: There is a relatedness to cognition and language. The directionality of this relationship is not yet concluded. Do we think according to our language, or do we speak according to our thoughts? See further: Noam Chomsky, “Knowledge of Language: Its Nature, Origin, and Use”, in: Ruth N. Anshen (ed.): *Convergence*, New York 1986, Chapter 1: “Knowledge of Language as a Focus of Inquiry”.

¹³⁴ Cf. Levinson & Majid: “Differential ineffability and the Senses”, 409, citing Tarski 1956, Searle 1969, Lenneberg 1953

Levinson states that the arguments against ineffability inevitably fall flat.¹³⁵ It is clear that both natural and logical languages have different expressive capabilities, he argues. A logical language without the additive operator would render the statement “2+2=4” ineffable. In the case of pain, we have a similar concept. Turkish for instance, has two different words for pain of which none takes precedent: *ağrı* and *acı*. *Ağrı* refers to a more dull, diffuse pain, and is applied for aches, like headaches, stomach-aches, etc. However, it isn’t as connotatively limited as the English word “ache”. *Acı* refers to sharp pains, like cutting oneself with a knife. The pain of spicy food is also referred to as *acı*. Yet a heart-ache is referred to as *acı*, not *ağrı*, as it stings. It is almost impossible for a Turkish-learner to extrapolate a ruleset that informs them of when to use which word. Most notably, the terms are bound to the experience itself, not the type of tissue damage. Pain from cutting-wounds usually starts being referred to as *acı*, but as they heal and the pain becomes dull, one would refer to the pain of the same pathology as *ağrı*. Today the pain in my elbow is an *acı*, in a week it might be *ağrı*. Similarly, an ache in the waist might start as the common term of waist- *ağrı* (*bel ağrısı*), but can turn, if worsening, into an *acı*. Interestingly, Turkish acknowledges the fluidity of pain with this. Therefore, we would be inclined to state that Turkish has – at least on surface - more expressive capabilities than English regarding pain.¹³⁶

Another argument that touches on the expressive capabilities of language is presented by Nietzsche’s famous analogy for leaves. Calling them leaves inevitably mutes the myriads of differences between the token leaves.¹³⁷ The reference of an object as an iteration of a type, which we inevitably do by mapping semantic entities to real world-entities, results in a denial of differences. To Nietzsche, we simply lie (in an amoral sense) when calling two different entities *leaves*. We assume commonalities among different token leaves based on our limited perception and worldview, when in fact they might have many more things differentiating them. Levinson concludes: “No finite set of categories, or finite vocabulary, could in principle capture all the individuating facts about this particular leaf—it remains ineffable (or the conjunction of the indefinitely many facts about it).”¹³⁸ In essence, language can never possess the expressive capability to fully capture the distinctiveness of phenomena.

¹³⁵ Cf. Levinson & Majid: “Differential ineffability and the Senses”, 409.

¹³⁶ Note: As this is just an illustration of different expressive capabilities of language, the evidence of it does not lie in the correctness of the anecdote. Even if it turns out that Turkish has no more expressive capabilities than English regarding pain, the point stands that languages differ in comprehensiveness of linguistic coding. See: Levinson’s example of *blue* in Yéli Dnye, Levinson & Majid: *Differential ineffability and the Senses*, 410.

¹³⁷ Nietzsche: *Über Wahrheit und Lüge im außermoralischen Sinne*.

¹³⁸ Levinson & Majid: “Differential ineffability and the Senses”, 409.

Another axis along which we can evaluate ineffability is linguistic codability. A state of affairs S or expression E is linguistically codable in Language L if and only if L contains an element of S or E.¹³⁹ The utterance “my shirt is blue” is true if the shirt is in fact blue. This entails that *blue* exists as an element of L. In L where *blue* does not exist, such as Yéli Dnye, the sentence is not linguistically codable. To make it codable, one would have to say: *my shirt has the surface appearance similar to the shallow sea over sand*.¹⁴⁰ However, an issue of codability lies in its truth-condition. *Lilac odor* (the expression of something smelling like lilacs) is linguistically transparent when the odor is caused by lilacs. The statement becomes true. If the experience is not caused by lilacs, then the expression is opaque as it is a subjective experience. In the later case we are dealing with subjective similarity ascriptions, rather than object-attributions. The statement could be true or false. Levinson states that we thus have two worlds being described. An objective world where things have properties and the subjective world of qualia themselves.¹⁴¹ We see that the propositionality of linguistic codability is not a given and reaches its limits quickly.

Therefore, Levinson distinguishes the following modes of codability:

- 1) Linguistic codability: a propositional yes/no about something being expressible in language L.
- 2) Efficient codability: how large the given vocabulary is for E, with regards to lexical elaboration.
- 3) Communication accuracy: how accurately L manages to express E with regards to the richness of E being conveyed to and understood by the recipient.

Something is relatively ineffable to the degree it resists codability in a language L by any of these three measures.¹⁴² In addition, Levinson distinguishes between two types of ineffability - *strong* and *weak*.

Strong ineffability entails that no language allows coding of sensation S. One possible distinction is made between facts that are strongly ineffable in the empirical sense that no human language can express it, or in the nomological sense that no language at all, including logical and artificial language may express S. Weak ineffability entails that sensation S is not

¹³⁹ Cf. Levinson & Majid, “Differential ineffability and the Senses”, 410.

¹⁴⁰ Cf. Stephen C. Levinson, *Presumptive Meanings: The Theory of Generalized Conversational Implicature*, Cambridge 2000.

¹⁴¹ Cf. Levinson & Majid, “Differential ineffability and the Senses”, 411.

¹⁴² Cf. Levinson & Majid, “Differential ineffability and the Senses”, 412.

codable in a language L1, even though it may be in L2.¹⁴³ Given the fluidity of languages, weak ineffability is relativized to a certain language at a certain point in time.¹⁴⁴

Ineffability is, in its weak (and more common) form tied to a language and a point in time. Levinson expands this notion by introducing variable ineffability across the senses: it seems that there is a discrepancy in how well we can express some types of sensations compared to others. In English, as of now, the ordinary vocabulary for colours is much denser than for other modalities such as taste and smell.¹⁴⁵ There seems to be a hierarchical order to the effability of our senses. We have more linguistic tools to express visual sensations than sensations of sound, which again are linguistically richer than sensations of taste.

Smell seems to be particularly ineffable. While we have a rather precise vocabulary for the visual domain, reference to smell is often basic. Mostly, we refer to smell in an affective manner, e.g. *It smells good/bad*. Sometimes we refer to smell by analogy *It smells like roses*. Descriptions of smell are coded for affect, or as a referent to an object rather than odour attributes.¹⁴⁶ The difference in ineffability across the senses remains one of Levinson's key points.

Further, there are also differences in effability *within* a particular sensual domain. In that vein we observe how it is easier to describe geometric shapes, than describing faces, although both are visual sensations. While we have applied this notion of ineffability to extra-mental perceptions, they also work introspectively: It is easier to imagine a green spider and invoke the corresponding mental image, than it is to imagine the smell of lavender and invoke the mental smell. In the special case of pain, some might argue it is impossible to imagine pain and then actually feel it.¹⁴⁷

With definitions in place, Levinson proceeds to investigate the roots of this differential ineffability across the senses. Let us start with explanations for strong ineffability: Cognitive-architectural explanations argue in a comparable manner to Fodor's epistemic boundedness. There seem to be things we are simply not good at cognising. One difficulty of describing

¹⁴³ See our example of *Ağrı* and *Acı*, which is a distinction in Turkish that is not codable in English.

¹⁴⁴ Levinson adds that this notion of strong ineffability refers to things that are epistemically entertainable, but inexpressible (cf. Levinson & Majid, "Differential ineffability and the Senses", 410-412).

¹⁴⁵ Cf. Levinson & Majid, "Differential ineffability and the Senses", 415.

¹⁴⁶ Cf. Levinson & Majid, "Differential ineffability and the Senses", 411.

¹⁴⁷ We cannot seem to imagine pain well enough to feel it. But even if we could, it would stop being imaginary as we would then be in actual pain. After all, as established in Part I, pain is there once we feel it. Imagining ourselves as a figure in pain without feeling it is then rather a visual-introspective sensation, rather than a painful one.

odours could be that our cortical resources required for olfaction are the same as the ones used for language, therefore competing with one another. Another example could be that our ability for putting sensations into words relies on our consciousness. The more consciously we experience something, the richer the vocabulary seems. Considering how much of our inner workings happen unconsciously, it seems that linguistic codability meets its barrier on the border to the unconscious. As Levinson puts it: “only aspects of sensation accessible to consciousness will be accessible to language, because language use is itself a deliberative sequence of actions.”¹⁴⁸ Another explanation for strong ineffability are the limits of language: this argument states that something specific about the nature of language (as opposed to the nature of the experience) makes coding some sensations more difficult than others. For instance, even if we had a good vocabulary to describe shapes of eyes, noses, and lips, we would still struggle with the ineffability of describing faces. No language seems to provide a precise toolkit for illustrating spatial ensembles.¹⁴⁹ Another limit of language is the aforementioned nominalism Nietzsche describes. Every language’s lexicon is finite. And finite vocabularies presuppose categories. Or rather, it seems to be intrinsic to language that each word is a category rather than a token. The problem arises when we consider how we convey meaning. For someone to understand a referential world, one must first have access to the referent, or at least infer about the nature of the referent from other words or facts. Qualia, as described above, resist this possibility, as they are necessarily subjective and private. Without being involved with pain-research, Levinson intuitively makes a remark on pain:

“But qualia by definition do not meet these conditions, and such subjective matters as qualities of pain or emotion would seem to resist objective conditions for word use—the best we can do is use such words with a reference that matches how we would feel or act in similar circumstances”¹⁵⁰

Of course, the relationship between language and cognition, language and consciousness invoke entire schools of philosophical thought. We need not get into them. For the purpose at hand, we may conclude:

Levinson provides us with a good framework for understanding ineffability. It is the inability or impossibility to linguistically code a sensation or experience, such that it is adequately conveyed. *Strong ineffability* refers to the inability to code something across all languages.

¹⁴⁸ Levinson & Majid, “Differential ineffability and the Senses”, 418.

¹⁴⁹ Levinson & Majid, “Differential ineffability and the Senses”, 419.

¹⁵⁰ Levinson & Majid, “Differential ineffability and the Senses”, 420.

Explanations for strong ineffability can either be derived from our cognitive architecture that makes such mapping impossible, or the limits of language itself. *Weak ineffability* refers to a relative difficulty in expression. Some phenomena can be better described in one language compared to another, at a certain point in time. Further, ineffability also varies across the senses. We find it much easier to describe visual sensations than we do smell or taste. Further, weak ineffability is always the ineffability of a socio-cultural location. In addition, weak ineffability is also tied to one's own abilities. An expert sensory assessor will have a larger, more sophisticated vocabulary for taste, than I do.

Nonetheless, the existence of ineffability is not accepted universally. The fluidity of language can be interpreted as both favouring and refuting ineffability. Favouring, as it means that language can never encompass linguistic coding of every referent across all domains and points in time. Refuting, because this open-endedness of language could mean that no true ineffability could ever persist as every vocabulary entails the potential to be enriched.

2.2.2 Gáb: Definition of Ineffability based on language and meaning

In the current understanding, a proposition is ineffable when there is no expression of L which expresses that proposition. Gáb argues that this definition is not entirely complete.¹⁵¹ For there are expressions that challenge what it means to express something. Something not being able to be expressed leads Gáb to investigate paradoxes in meaning. He gives the following example:

P: “There is an integer n one greater than the greatest integer I successfully define today.”¹⁵²

The sentence P is linguistically codable and looks to be perfectly meaningful. However, as soon as I utter a sentence expressing P, it will be false. There cannot be an integer that is greater than the one I define, as that is the definition itself. P is a paradox. Nonetheless, the proposition is not ineffable. It merely cannot be said without a contradiction. The same case applies to the utterance “I am sleeping.” Of course, this proposition can be said and carries meaning. It is only that one cannot utter it and state something true. For this reason, Gáb concludes that ineffability is not tied to the truth-value of a proposition. Therefore, ineffability should not be understood as expressing something truly, or without contradiction. “Stating that a proposition is ineffable implies nothing about the truth or falsity of this proposition.”¹⁵³

It seems we cannot rely on propositional logic to carry the question of meaning with regards to ineffability. What does it mean then, that something cannot be said? This depends on what it means to say something. And further, saying something happens in the context of a language. Therefore, Gáb roots ineffability in the fundamental question: What is language? By inquiring about the nature of language, he suggests, we obtain a corresponding notion of ineffability.

On a rudimentary level, language can be interpreted to be one of the following: A) a system of symbols which are assigned certain values (meanings) that correspond to things. These symbols can be combined through a ruleset that allows for the generation of new symbols and meanings. B) Language is a tool we use to communicate. It is an observable type of human behaviour we

¹⁵¹ Sebastian Gáb, “Ineffability: The Very Concept”, in: *Philosophia*, Vol. 48 (5), 2020, 1826.

¹⁵² Ibid.

¹⁵³ Gáb, “Ineffability: The Very Concept”, 1827.

use to express thoughts or cause actions.¹⁵⁴¹⁵⁵¹⁵⁶ Our notion of ineffability will change depending on which aspect of language we focus on (A or B).

The first model as per A is the *logical model of language*: As hinted, according to this model, words (terms and expressions) are atomic units of meaning. They can be combined to form molecules of meaning, such as “hurting yesterday”. Larger clusters of meaning achieved by the combination of atomic and molecular units of meaning are called sentences or propositions (“My arm hurts since yesterday!”). How we are to combine these smaller units of meaning is governed by a ruleset that preserves, structures, and enhances meaning, called grammar. Terms are assigned to objects in reality, which constitutes their *semantic value*. The semantic value of *pain* is that it refers to a thing called pain. A proposition on the other hand, does not refer to parts of reality, but to a state of affairs. Since a proposition refers to a state of affairs, it seems that it has a truth-value. For “To understand a proposition is to know what is the case if it is true.”¹⁵⁷ Saying something in the logical model of language means that one invokes an element of a language that has a semantic value (it successfully refers to something). As Gäb puts it:

“[expression] F says something if and only if there is a syntactically correct expression F(a) in some language L which has some meaning given the semantic rules of L. According to this paradigm, it is the expression itself which says something.”¹⁵⁸

In the vein of Wittgenstein, whom Gäb cites, it is the expression itself that says something. My intentions are rather secondary in this model. I might want to communicate something, but if I do not successfully apply semantics and syntax, then I will not be understood. And conversely, what is understood is the semantic value of things I refer to, rather than my intention to communicate. Meaning lies in the expression itself. Hence, we may use language “wrong”, in which case we have to adjust by prefacing *I didn’t mean it that way*.

The second model as per B is the *communication model of language*: Here, language is tool for communication and a type of behaviour. Utterances situated in and sensitive to contexts, time place, etc. The meaning of an utterance is gained from how I employ the respective semantic values in the given context. Gäb:

¹⁵⁴ Gäb, “Ineffability: The Very Concept”, 1827.

¹⁵⁵ Note: The distinction reminds us of Wittgenstein’s notions of language. A as conceived in the *Tractatus*, and B as in the *Philosophical Investigations*.

¹⁵⁶ Note: Causing Actions with speech is explored in the speech-act theory. See: John L. Austin, *How to do things with words*, Oxford 1962; and John R. Searle (1969), *Speech Acts*, Cambridge 2012.

¹⁵⁷ Wittgenstein, *Tractatus logico-philosophicus*, 4.024, 1922 as cited by Gäb 1828.

¹⁵⁸ Gäb, “Ineffability: The Very Concept”, 1828.

“Understood this way, ‘saying something’ means doing something. It’s not that the expression says something, but it’s that I say something via the expression. The meaning of an expression is determined by the speaker’s intentions or the communicative function it fulfils in a given situation.”¹⁵⁹

The communication model does not derive meaning from the semantic value of an utterance, or a proposition being true, but rather from what the speaker intends to communicate. An expression itself is almost meaningless, for it cannot be infused with meaning without being tied to contexts of space, time, and discourse. Everyday notions of linguistic tools such as sarcasm, cynicism, perspectivism, etc. support this claim. For according to the logical model, all these would not be granted the ability to change the meaning of a proposition. In the communication model they are granted (and even necessary) to extrapolate meaning from utterances.

Followingly, two different conceptions of language result in two meanings of *ineffability*: In the logical model of language, something is ineffable if a given language does not contain any expression that designates what is to be expressed. In its most basic form, we might simply not have a word (and with it a semantic value) to express E. Or perhaps our proposition does not add up, both in semantics and syntax, to display a state of affairs. In this logical model of language, blue is ineffable in Yéll Dnye as the symbols do not have semantic value – they lack meaning because they do not successfully refer to something. Like Levinson, Gäb describes this as weak ineffability. While he does come to this notion from a different angle, the notion is the same. According to weak ineffability in the logical language, nothing speaks against enriching the symbols or rules of a language to allow for something to be made effable. Further, another set rules and semantic values (another language) might very well provide an expression. Weak ineffability is therefore *Inexpressibility* in Gäb’s framework if these two premises apply:

P1: “A proposition p is weakly ineffable in a language L if and only if no sentence which expresses p is an element of L.”¹⁶⁰

¹⁵⁹ Gäb, “Ineffability: The Very Concept”, 1828.

¹⁶⁰ Gäb, “Ineffability: The Very Concept”, 1830.

P2: “In general, any sentence F(a) will express that the concept F applies to the object referred to by a”¹⁶¹

A strong commitment to the fact that words have inherent meanings can be observed. If something is weakly ineffable in this notion, then only due to a deficiency of symbolism, or inadequacy of rules to produce sentences which express a certain state of affairs. And conversely if a word is uttered, and understood, it *must* have meaning.¹⁶² Weak ineffability is only language-ineffability. It results from a deficient system of symbols and is removable, by either enhancing the symbols of a language, or expressing oneself in a language with greater expressive power concerning the proposition.¹⁶³

In the communication model of language, something is ineffable if it cannot be communicated, which Gáb posits as strong *ineffability*:

“A proposition p is strongly ineffable if and only if for any subject S: S can be in a mental state that p and S cannot communicate that p.”¹⁶⁴

In the case of ineffability, the communication succeeds if the sender conveys a message coded in signs that is then received and understood by the receiver. Signs are only a medium in this case and have no expressive power on their own. Rather, their expressive power obtains only once we interpret them, otherwise the signs are mere information. Therefore, Gáb argues, if something is incommunicable, it is not due to a failure in transmission of information (e.g. the signs of our sentence do not form coherent words). Something is incommunicable if we are unable to interpret the acts carrying information as signs. In an applied example, this would mean that someone can perhaps yell something semantically incoherent, but due to them being my sibling, I could understand their intentions perfectly fine. On the other hand, the communication model also allows for semantically flawless sentences to fail at communication, for instance when a scholar speaks in terms the layman does not understand. The transmission of information itself is merely a physical process. In summary: “Incommunicability, then, is the inability to signify something: to create a sign for the intended meaning.”¹⁶⁵

¹⁶¹ Gáb, “Ineffability: The Very Concept”, 1831.

¹⁶² Cf. Gáb, “Ineffability: The Very Concept”, 1832: Note: „what is expressed *has* meaning“

¹⁶³ Ibid.

¹⁶⁴ Ibid.

¹⁶⁵ Gáb, “Ineffability: The Very Concept”, 1833.

While we could go more in depth into how signs become linked to meanings and the relationship between significant and referent (and Gáb provides this depth), we are content with the following conclusion for incommunicability:

“[...]strong ineffability is the inability to form a mental significate that represents the state of affairs one is trying to express, or that one is unable to conceptualize a given mental representation. If something is strongly ineffable, we are unable to give a sign the meaning required to express what we want to express.”¹⁶⁶

When one is tasked with representing a state of affairs, but cannot do so in words, then something is strongly ineffable. We are reminded of Levinson's differential ineffability, according to which smells are less effable than visual perceptions. One could say that we simply cannot express the details of the smell well enough with our vocabulary, even if our words are signs with semantic values. The total value we give to our expressions does not add up to what we want to express, hence, some smells are strongly ineffable - we cannot form signs that communicate them for someone to successfully interpret.

An understanding of weak and strong ineffability according to Gáb's framework has now been gained. It is now time to look at some axioms of the relationship between weak and strong ineffability: firstly, strong ineffability entails weak ineffability. If something cannot be communicated, because no sign could ever carry the meaning we intend to express, then every language falls into this category. Everything that is strongly ineffable is weakly ineffable, but not vice versa. Only if every language, or a physiological, or cognitive barrier, etc. permits us from communicating something in principle, we speak of strong ineffability. Second, weak ineffability is removable by enriching the language. However, strong ineffability is incurable as it doesn't stem from a language deficiency, but from a mental deficiency. Weak ineffability is relative to a semantic system, whereas strong ineffability is relative to a type of cognitive system.

2.2.3 Kukla: Beyond weak and strong ineffability

Kukla approaches the topic from a slightly different angle than the scholar's we've discussed so far. He investigates ineffability from in the framework of mystical experiences. Nonetheless,

¹⁶⁶ Gáb, “Ineffability: The Very Concept”, 1835.

he does not diverge from the analytical method, providing us with valuable tools in assessing ineffability.

When trying to argue for or criticise ineffability, he states, one's primary target is the notion of language, rather than the notion of ineffability itself.

Kukla comments (with Donald Davidson and late Wittgenstein) against theories that are primarily concerned with semantic values (such as Tarski or early Wittgenstein). The Tarskian conception of effability would only apply to the most literal use of language, however there is no such thing as literal language.¹⁶⁷ Words are neither exhaustive, nor clearly defined in what meaning they hold and what intend they convey. Kukla claims with Davidson that language is nothing like philosophers argue it is. In some capacity, the accusation seems to imply that some philosophers treat language as a caricature. Meaning is not a predetermined thing we ascribe to words. Rather, meaning emerges from a joint exchange between speaker and hearer in and through discourse. Yet, Kukla is aware that theories of communication (such as Wittgenstein's *PI*) also downplay the fact that both speaker and hearer rely on pre-established semantic rules for mutual comprehension.¹⁶⁸ What do we make of this, then? We now have clashing notions of language that are each valid and validly criticised. It is in this tension that Kukla aims to reconcile notions of ineffability. He provides five possible types:

Unrepresentability happens when a state of affairs is ineffable in a language due to a lack of expressive resources that represent said state. It is itself an umbrella term for several possible causes of ineffability. A fact can be unrepresentable in the given language of discourse (weak unrepresentability), as we have encountered under *weak ineffability* in Levinson and Gäb. Adding to that, all human languages might lack expressive resources resulting in *human unrepresentability*. Going further, all languages accessible by any nomologically possible being (e.g. the successor species to humans) could be lacking (*nomological unrepresentability*), or even all logically possible languages could not success in expressing a state of affairs (*logical unrepresentability*). Kukla employs graduations between the previous weak and strong ineffabilities, depending on the level of potential effability.

Unabducibility is the notion that a language body *L* contains a sentence *S* that a speaker can technically say, but never has a reason to include in their speech. Speaker *P* is capable of entertaining *S* but speaks *L*- {*S*}. The framework from which Kukla obtains unabductability is

¹⁶⁷ Cf. Andre Kukla, *Ineffability and Philosophy*, 1st Edition, New York 2005, 18.

¹⁶⁸ Cf. Kukla, *Ineffability and Philosophy*, 25.

more interesting for us: To him, a speaker doesn't just say sentences. Rather, the speaker starts with the intent of expressing a proposition. Then, a three step-process follows. For proposition P candidate sentences are abducted. Those candidates are followingly evaluated. The sentence winning the evaluation is then said.¹⁶⁹

In that case, the state of affairs represented by S are ineffable, as the sentence in question is never abducted to be part of the closer selections of things we *could* say. However, that doesn't mean that we aren't able to entertain the belief, both epistemically and linguistically.¹⁷⁰ Our product, the sentence being said is proposition P, not S. Empirically, this unabductability does not differ from unrepresentability, Kukla admits. However, it could be a useful distinction for use in empirical theories.

Unselectability and Unexecutability build upon the previous process of sentence-selection. In this case it is after abduction of candidate sentences, that S might be barred from being selected or executed. Each step offers its own way of ineffability in Kukla's framework. If a speaker abduces sentence S, but never chooses to speak it, because it lies under the threshold of assertability, then it is unselectable. "We might entertain the possibility of saying an unselectable sentence, but always decide against it in the end. It always seems to be too contentious, or too troublesome, or too trivial a thing to say."¹⁷¹ Further, even among the selected sentence, we may find that it became unexecutable: I pick a sentence to say, get ready to say it, and suddenly I'm tongue-tied. I have a black-out, my head explodes (Kukla's example, not mine), etc. S then is considered unexecutable. Ineffability regarding each of these three stages in the sentence-selection-process (*unabductability, unselectability and unexecutability*) are all subsumed as *unspeakability*.

This is also the first and major divergence in notions of ineffability, especially from Levinson and Gäb, for in their framework those aren't factors for ineffability. Selection does not play a part in Levinson and Gäb – only the potential ability to formulate and speak a proposition P in L determines ineffability. A sentence S that is perfectly vapid to think of, is in no way ineffable to Gäb and Levinson, even if it is never selected, or executed. The sentence still exists, and if it can potentially be said at a later point in time, without blockades, it is in no way ineffable.

¹⁶⁹ Cf. Kukla, *Ineffability and Philosophy*, 110. Note: We find that this model of "executing" sentences is especially interesting for speech-acts, as it almost invokes Hume's theory of agency, but applied to language.

¹⁷⁰ The abducted sentences, even if not selected to be candidates, are not limited by factors of epistemic or linguistic boundedness.

¹⁷¹ Ibid.

Or rather, sentences are probed for their ineffability through principle of their respective language, rather than condition.

Unreportability happens when a sentence is effable in principle but cannot be reported. The assertion P1: “Snow is white, but I do not say ‘Snow is white.’” is only true insofar I do not report the fact of snow being white. If I report S, I ensure that it is false.¹⁷²

Unreportability is different from unrepresentability, as P1 is clearly representable. In addition, it is different from unspeakability, as there is nothing stopping the agent from saying P1. It is only that if they do say it, the report will be false. Kukla still see’s this as ineffability, for it is another way of “construing the claim that something ‘cannot be said’.”¹⁷³ An example provided is the aim to write a universal encyclopedia that contains all facts: ineffabilities are facts that cannot be included in the encyclopedia. Unrepresentable facts also cannot as there are no sentences representing them. Unspeakable facts aren’t in the encyclopedia because they cannot be written down. And unreportable facts cannot be included, as writing them down would make them false, robbing them of their factual nature.¹⁷⁴

Through these five ineffabilities, Kukla has expanded upon the repertoire we had built with Levinson and Gäb. However, there remain a few points of contention: for one, we do not know if the sentence selection process truly works in this three-step-system. It might be an entirely different mechanism leading us to our sentences, or it might apply in more or less graduality. Secondly, Kukla switches between notions of language. Unreportability for instance, relies on and applies the logical model of language, rather than the communicational model (see 2.2.2). However, he himself criticizes this way of looking at language in the beginning. Language is not always literal, we remember. Further, it is unclear to us why unreportability is not part of the sentence selection process of unspeakability. After all, choosing to not speak a sentence because it would render its propositional value false is exactly the type of choice one would make in the 2nd step of evaluation. Do unreportability and unselectability overlap, then? We must add that Kukla’s framework fares better with regards to mystical experiences, as they often induce a “dissolution of the ego” – a premise we destroy by speaking through subjects.

¹⁷² Cf. Kukla, *Ineffability and Philosophy*, 112. Presenting Moores paradox.

¹⁷³ Ibid.

¹⁷⁴ Cf. Kukla, *Ineffability and Philosophy*, 113.

Therefore, many mystical experiences are primarily unreportable, rather than unspeakable making the distinction hold up better.¹⁷⁵

Nonetheless, we are provided with some tools that help us in assessing the ineffability of pain. For one, the three-step-process of forming sentences might only be a rudimentary blueprint, but it can certainly highlight the graduality of ineffable phenomena. Further granularity is added in the potential of expressive resources: Some things cannot be said in English, some things cannot be said in any language right now, some things will never be said in any language ever but thought or felt. Some cannot be accessed by humans, ever. We appreciate these distinctions and especially the selection-process will occupy us when we apply pain to frameworks of ineffability.

2.2.4 Jonas: Ineffability and Metaphysics

Silvia Jonas ties together the topics of ineffability and metaphysics and examines their points of contact. As we are at this same junction with regards to pain, Jonas' points are invaluable to us.

Most importantly for our endeavour, she argues for what ineffability ought not to be, or rather which notions of ineffability are trivial: The common source for cases of trivial ineffability is nescience – a lack of knowledge. This lack can be removed by either gaining information, by learning processes, or by the future becoming the present. The notion of ineffability is applied to names, terms, and propositions not through them being ineffable in principle, but due to specific subjects with specific epistemic constraints. Jonas states:

“Put differently, the alleged ineffability in these cases is not a consequence of an intrinsic property of the respective names or propositions. Rather, it is a consequence of their extrinsic properties, that is, of the way in which the subjects in question are related to the respective entities. As a result, there is nothing particularly mysterious about ineffability.”¹⁷⁶

This is quite the challenge for our previous notions of ineffability as it practically removes all sorts of strong ineffability, in addition to trivialising epistemic and linguistic boundedness. In addition, Jonas also removes ineffabilities that result from physical impairments. If A is gagged and cannot speak of a state of affairs, then that state is trivially ineffable to A. This also removes

¹⁷⁵Cf. Andre Kukla: *Ineffability and Philosophy*, 2005, 116.

¹⁷⁶ Silvia Jonas, *Ineffability and Its Metaphysics: The Unspeakable in Art, Religion, and Philosophy*, New York 2016, 5.

Aphasia from her framework, which is implicitly granted a place in the previous ones.¹⁷⁷ And lastly, Jonas does not consider descriptions that are too rich as ineffable. Faces are ineffable in Levinson's framework, however for Jonas it is merely the abundance of detail that overcharges our resources, not an intrinsic resistance to describing facial features. If we had the time and will to describe a face in meticulous detail, it seems we could. This too, is a strong divergence from our previous notions. In addition, propositional paradoxes are also only trivially ineffable. Such is the case when we try expressing an infinite sentence *P*. Every difficulty that stems from humans being finite beings with finite resources to express things are not of concern to Jonas. In that vein, Nietzsche's nominalist account for descriptive categorizations (see 2.2.1) is also trivial. We could never attempt to describe, refer to or name leaves individually, because we simply do not have the resources to do so. And in addition, there seems not much meaning in attempting to:

“The way I see it, there is nothing particularly mysterious about being gagged, nor about not being able to express an abundance of perceptual details, and not even about being finite.”¹⁷⁸

Assuming that these things can be taken for granted – that only phenomena accessible to us are of interest for discussions on ineffability – what about the things that *are* accessible to us, yet we struggle to put into words, like pain? Qualities of perceptual experiences, or ‘sense perceptions’, ‘qualia’ (Levinson) fall under this category.¹⁷⁹ Jonas describes them as self-evidently ineffable, and therefore also trivially ineffable:

“Given that it is impossible to express the sense perception of tasting saffron in such a way that another person will come to know how saffron tastes, sense perceptions are ineffable. Sense perceptions, just like stones, are just not the kinds of things that can be expressed; they can at best be described, but in order to fully understand what saffron tastes like, no description will ever be enough; I have to taste saffron myself. [...] Put differently, concrete objects and sense perceptions are ineffable by definition and therefore, not particularly mysterious.”¹⁸⁰

¹⁷⁷ Aphasia as the inability to either speak, or the disability of speech (as in language) could both be considered as cases of strong ineffability in Levinson, G&ab and Kukla.

¹⁷⁸ Jonas, *Ineffability and Its Metaphysics: The Unspeakable in Art, Religion, and Philosophy*, 6.

¹⁷⁹ See: Chapter 2.2.1, *quale* focus on the experience itself rather than propositional statements about experiencing. *Quale* are the painfulness of pain, the particular taste of wine, and the redness of red.

¹⁸⁰ Jonas, *Ineffability and Its Metaphysics: The Unspeakable in Art, Religion, and Philosophy*, 6.

Sense perceptions are technically ineffable. However, applying the framework of ineffability to them is a mistake, she posits. Calling the taste of saffron ineffable is meaningless, as conveying the taste of saffron is logically impossible. Therefore, it is a category mistake to ascribe ineffability to sense perceptions. Objects (such as leaves) and sense perceptions (such as smell and pain) are ineffable by definition.¹⁸¹

Jonas provides us with an additional example to taste, but this time in relation to intersubjective judgements: if Peter asks Paula about the taste of vanilla ice cream, he isn't looking for an expression of *her* phenomenology of eating ice cream. Peter is different from Paula and there is nothing mysterious about that. In that way Jonas breaks down all experiences, both religious and non-religious, to have aspects of effability, and aspects of ineffability to them. That which is ineffable about an experience is its phenomenology. While Jonas doesn't state this explicitly, we believe that she refers to the *what-it's-like* of an experience specifically - the phenomenally invoked mental state. While the point being made is not at all about communication, we still find it intriguing. What does Peter actually ask of Paula when asking about the taste of ice cream? If he does not wish for her to express her *what-it's-like*, what then is he out for? The example seems to insinuate that Peter is looking for a more objective account of the experience, something from which he could extrapolate what his own experience would feel like. In short, this example seems to imply that we cannot use someone's phenomenal experience to inform our own. Rather, we can only use an abstracted, incompletely-verbalized shell of an expression (the report) which we are then asked to unpack again. It is almost as if we *want* our communication to step away from the core of our experience. Is this the case too between a pain patient and a doctor? We will look further into this in Chapter 2.3.4 when applying pain to this notion of ineffability.

Jonas has now provided us with a rather controversial framework for ineffability, or rather negative ineffability. It is clear that she disagrees with many present notions that focus on cognitive and linguistic ability. Though perhaps there may be loopholes, it is not too tough an exaggeration to assume that she would classify Levinson, Gäb and Jonas as mostly dealing with trivial ineffability. What are contenders for non-trivial cases of ineffability then? Religious, aesthetic, and subjective contexts with regards to metaphysics (most notably

¹⁸¹ Cf. Jonas, *Ineffability and Its Metaphysics: The Unspeakable in Art, Religion, and Philosophy*, 6.

idealism).¹⁸² We mention those for sake of completeness and need not delve deeper into them for the purpose of investigating pain.

The inquiry can be concluded at this point. What does it mean for something to be ineffable? On the surface, it means we struggle to put things into words. Sometimes we struggle due to boundaries of our language. Other times we struggle due to our epistemic and physical limits. Yet other times we are capable, but unwilling or unadvised to speak a sentence. The presented theories agree that there are several types of ineffability, mostly differentiating between statements we categorically cannot make, and other's that could be made in another language, at another point in time, or through removal of a whatever barrier. The frameworks also agree that sense perceptions are ineffable by nature, though not to the same degree, depending on specifics. Jonas also agrees with these notions, however she states that these types of ineffability are trivial and not as worthy of further investigation, as ineffabilities surrounding religious, aesthetic, and metaphysical contexts would be.

2.3 Applying pain to frameworks of ineffability

Having looked at the most prominent notions about ineffability, we are now ready to apply them to pain. Up until now, a lot of space has been given to fully understand pain and ineffability as phenomena. We believe that this was necessary to make qualified statements about the conjunction of the two. In this chapter, it will hopefully be apparent how we now benefit from our thorough examination of pain and ineffability. We apply each framework individually and draw individual conclusions for each of them, before then drawing the final conclusion of this endeavour.

2.3.1 Pain and differential ineffability

Let us now investigate how pain would fit Levinson's framework of differential ineffability and if it would accordingly be classified as ineffable. We start with Levinson's claim that qualia are necessarily ineffable. Is pain such a quality? Then, we proceed to assessing if pain resists linguistic codability, which would render it ineffable. In addition, if it is, is it strongly or weakly ineffable? And lastly, Levinson claims that not all senses are equally ineffable. How does pain fit into this discussion about differential ineffability of the senses? We offer a few interpretations with points and counterpoints to pain's ineffability in Levinson's notion of it.

¹⁸² Jonas, *Ineffability and Its Metaphysics: The Unspeakable in Art, Religion, and Philosophy*, 8-9.

Firstly, Levinson invokes the question of qualia. As we had discussed in our section about philosophical views on pain, we cannot state that pain has a definitive quale.¹⁸³ While we may believe that pains are *painful*, there is no consensus on what constitutes this painfulness. The experience of pain seems too diverse and too multi-dimensional to settle for the bounds of a single quale.¹⁸⁴ Qualia are intrinsically private and ineffable. Pain is not so necessarily due to potentially possessing a quale like the redness of red. Nonetheless pain is equally private in that nobody has epistemic access to it, but the sufferer. Therefore, quale does not suffice in making pain ineffable, but the privacy of it points into that direction.¹⁸⁵

In addition, we also have Levinson's criteria for linguistic codability. We remember, something is ineffable in a language L to the degree it resists the following three criteria:

- 1) Linguistic codability: a propositional yes/no about something being expressible in language L.
- 2) Efficient codability: How large the given vocabulary is for E, with regards to lexical elaboration.
- 3) Communication accuracy: how accurately L manages to express E with regards to the richness of E being conveyed to and understood by the recipient. -> How easy it is to decode the message.

In the case of pain, we can state that 1) is the case. We have this phenomenon called pain that we can utter and be somewhat understood. The propositional value of 1) is true and therefore pain is not ineffable through this criterion. Point 2) is rather in favour in pain being ineffable. As Chapter 2.1. showed us, the vocabulary for formulating sentences about pain is very scarce (hence its measurement is reduced to mere numbers). Pain does not seem efficiently coded, at least compared to domains that are, such as vision. 3) is a point that could be up for debate, depending on the interpretation of accuracy. Two possible readings suggest themselves:

3a) Pain is then accurately communicated if we are able to tell of the phenomenon happening. In that case, one may say "I'm hurt!" and be understood quite clearly. Pain is communicated accurately, once the listener comprehends that we are in pain.

¹⁸³ Cf. Chapter 1.4

¹⁸⁴ Cf. Chapter 1.4.1.

¹⁸⁵ Levinson does not pursue the point about quale any further, therefore we leave it here as well.

3b) While we can tell *of* our pain, we can hardly talk *about* our pain. Meaning, even if the listener can be unmistakable about the fact we are in pain, they hardly know what it feels like specifically. As Part I concluded, no two pains are the same. The systems involved are too varied and too dependent on too many physiological, cognitive and emotional factors (among others) Therefore, the message “I’m hurt!” is decoded successfully only on surface about the occurrence, but not decoded successfully on the level of representation. We can communicate accurately that we are in pain, but not at all what happens with us when we are in pain and *how* we are in pain. After the fact (It hurts!), most impressions stay mute.

Interpretation 3b seems favourable. In lieu of the thesis, we believe that on a surface level pain enjoys some codability. It is a word, and it can be understood. However, the word itself, and its related vocabulary, are small and not particularly representative of the experience. If they were, we wouldn’t have difficulties in communication and wouldn’t rely on facial expressions and other non-lexical signs to assist us in determining the intensity of pain. As 2) and 3) are not satisfied, pain does not fulfil the criteria of sufficient linguistic codability. According to Levinson’s own framework, pain is ineffable to a certain degree.

But is it strongly, or weakly ineffable? The problem with strong ineffability is that it can only be claimed for a priori judgments. Ineffabilities due to epistemic boundedness, experiences of the divine or aesthetics, etc. can comfortably be claimed as strongly ineffable.¹⁸⁶ That is, because their principle of ineffability lies not in language per se, but in cognition. However, for perceptions that are contingent upon language, like pain, we would have to prove that each and every language doesn’t fulfil the criteria for linguistic codability.¹⁸⁷ And nobody can do that sensibly. It could be the case that a remote warrior tribe has an extensive vocabulary that allows for genuine and accurate statements about pain on all three criteria of linguistic codability.

Therefore, we settle for weak ineffability. As pain resists some criteria for linguistic codability, in English, as of now, it is ineffable to that degree. Levinson’s framework is especially valuable

¹⁸⁶ This is the point Jonas makes: It seems that strong ineffability only makes sense for claims that are ineffable, independently of our experience or language. As soon as we make a statement contingent upon language, we are burdened with proving that each and every language falls flat in that regard.

¹⁸⁷ Of course, one could argue that all statements could be contingent on language, even the ones whose ineffability we believe to be located in epistemic boundedness. The interplay of language, cognition and our boundaries are still being debated. We are aware of the metaphysical commitments on all sides of this argument.

as it allows for graduality. Especially the implementation of accuracy and efficiency enabled us to define precisely how ineffable pain is.

Another one of Levinson's main points is that ineffability varies across the senses. Visual experiences are easier to put into words than smell, etc. Is pain a sense? It might be clear that Pain is not a sight, sound smell or taste. However, is pain perhaps touch? On an initial level we might remember that the nerve ends for touch are believed to alert us of pain due to physical, chemical or temperature stimulation (through a process called nociception) However, our thorough investigation of pain in 1.3.2. informs us that nociception alone is not enough to constitute pain. Neither is it necessarily caused by that. Therefore, pain is not touch either. Nonetheless, each and every sense can cause pain. We need to keep in mind the difference between cause and type of an experience. Bright light, extremely loud noise, very spicy food, physical pressure on nerves can cause pain, but they *are* not pain. The type of the experience remains to be pain and its quale remains - depending on theory - to be painfulness, a call for action, or unknown. Pain is therefore not a type of sense, despite some mechanistic theories interpreting it as action potential of nerves.

But is pain perhaps several senses in combination? Levinson makes the case that the intensity of a sensual experience is cross-modal (meaning it applies to several senses). And cross-modalities are usually less prone to ineffability, as we have the vocabulary of several senses to inform us. Pain is usually measured in intensity.¹⁸⁸ However, while intensity itself is cross-modal, pain itself isn't. While we can see and touch for the distance between two points (making distance cross-modal)¹⁸⁹, we wouldn't claim that we can hear and see a certain pain or see and touch it. What we see is a wound, what we touch is tissue damage, what we feel is physical pressure, and what *can* be kickstarted by that is nociception, and nociception *can* be a part of pain. Here too, pain does not fit into the framework of cross-modalities. Pain is also no combination of two or more senses like distance, even though several senses can contribute to the overall experience that is pain. Pain's elusiveness remains in this area as well.

The result of pain not being a sense, means for us that it cannot be assessed through a framework designed for senses. That doesn't render Levinson inadequate for our purpose, though. We can at least try to compare pain to the senses and look for hints of analogies. For us, the most obvious comparison would be that of smell and pain: as Levinson notes, smell is

¹⁸⁸ See: Pain scales in 2.1

¹⁸⁹ Levinson & Majid, Differential ineffability and the Senses, 416.

usually coded for affect. “It stinks!” or “It smells good!” is usually how we address smells in our limited vocabulary for them. Sometimes we use analogies to objects, such as “It smells like roses”. Sentences about pain are coded for affect first and foremost as well.¹⁹⁰ Sometimes we help ourselves with analogies like “It feels as if I had a splinter in my arm when moving it.” Both smell and pain seem to draw from a similarly limited vocabulary. Both are coded for affect, and both are, in their domains, at the relative height of ineffability.¹⁹¹ If the mentioned criteria are sufficient to render smell relatively ineffable, then by analogy, pain could be considered ineffable as well.

2.3.2 Ineffability of Pain depending on notions of language

Gäb distinguishes ineffability based on the notion of language. There is a *logical* and *communication* model of language. While we could argue which notion of language is more truthful (and philosophers have done this plenty), we want to take a different approach. We argue that *de facto*, the conveying and decoding of pain happens through the communication model of language.

In the logical model of language, the expression “I am hurt!” exists and is coded. It has a defined semantic value. Like Levinson, Gäb would not say that pain is ineffable in the logical language model. We remember that it is the expression itself that carries meaning here. We are fine so long as the expression is understood (as opposed to “I ma hrtu!”). The propositional value of the sentence is also negligible, as Gäb points out. The content of the sentence does not have to represent an actual state of affairs to be meaningful. Followingly, expressions of pain would not be ineffable.

The issue is that we do not use the logical model to communicate pain: In clinical practice, we look for all sorts of signs that communicate pain, rather than sentences that follow grammar rules. Most measurements are also not contingent on correct formulations. They use numbers, physiological measurements (NVPS and BPS) or in the case of the Wong-Baker face pain rating scales, even caricatures of faces. Sentences about our pain can certainly help us in communicating, but ultimately the decoding does not necessarily happen on the level of

¹⁹⁰ Note: Perhaps it is this linguistic suggestion that leads some philosophers to believe pains intentional content to lie in its affect.

¹⁹¹ Note: With domains we consider sensual perceptions for smell, and for pain either introspective domains (such as thoughts, feelings etc) or perceptual domains (again visions etc) depending on one’s metaphysical commitments about the nature of pain.

statements. Rather, it is an overall impression that is being communicated. If I say “I’m not in pain” while making a face befit for agony, I will inevitably communicate the opposite of what the semantic value would suggest.

The logical model of language might be attractive to determine propositional and semantic values but is ill suited for assessing expressive power. We do not rely on sentences to communicate pain. Facial expressions, noises, demeanour, etc. all communicate pain without relying on semantic value. The same is not true for other kinds of expressions. For instance, we cannot make a face that communicates “This building is 3 stories tall”. In this case, we would rely on semantics, sentences and grammar. When we try to convey pain, the mapping of symbols seems secondary. This insufficiency of the logical model is further supported by the fact that we deliberately move away from semantic values, not towards them, when trying to measure pain clinically. Think back to the pain scales. Most of them depart from descriptive propositions, as we feel that exhausting the semantic value of our pain-vocabulary does not sufficiently equip us to assess the pain in front of us.

But is pain ineffable in this communication model? Similar to our discussion of Levinson’s ineffability, we may interpret this in the same two manners: 1) we are entirely fine with the word pain and believe it to encompass all that we would want to express, in which case pain is not ineffable. Or 2) we take G  b’s premise “In general, any sentence $F(a)$ will express that the concept F applies to the object referred to by a .” and we add the second premise of 2.1 (the notion that pain is difficult to communicate) then it follows that the sentence “I’m hurt” does not correctly express F (the fact that I’m hurt), because “I’m hurt!” itself is not a successful referent to the object a intends to refer to. In short, our sentences communicate something, but they do not communicate all that we intend to convey. Conversely, the sentence on arrival is decoded, but not understood in the richness it would need to be representative of a ’s experience.

Pain is therefore, according to the communication model, somewhat ineffable. As G  b and Levinson share similar definitions of weak and strong ineffability, our previous points apply: We cannot make the statement of strong ineffability in good faith, although it would suggest itself, as pain seems ineffable in G  b’s framework. We can only state that there likely are other languages that have a greater expressive capability than English with regards to pain. Therefore, pain is weakly ineffable in G  b’s framework when applying the communication model of language. It just seems that we can at best convey surface-level facts about our pain, while the vast richness of the experience eludes linguistic coding. G  b however, does not

support us with the same degree of graduality that Levinson does, as accuracy and efficiency of linguistic coding are not accounted for. It seems to him we either can or cannot say something. In that case, we claim that we are closer to the fact that we cannot communicate pain due to a lack of richness and the comparatively low expressive power of English regarding statements of pain.

2.3.3 Pain beyond weak and strong ineffability

Moving on from the weak and strong distinctions of ineffability, Kukla supplied us with the notions of unrepresentability, unabducibility, unselectability, unexecutability and unreportability. Let us see how pain fits into those.

The starting point lies in casting aside the notions that do not apply. The first is unreportability. Pains are not unreportable in that they do not impose contradictions. When uttering “I’m hurt!” my pain is never falsified. Pain is even the opposite of unreportability: As we remember, a fact is unreportable if it contradicts its own factual nature, e.g. “I am asleep!” Since the one suffering is the only one with epistemic access to pain, it is impossible to prove that the utterance “I’m hurt” is factually false. Therefore, a pain report is always a valid report – this is also embodied in the IASP’s definition of pain.

Unexecutability is another one we do not believe to apply. In theory, it is no physical impairment that stops us from making claims about our pain. And even if there was a physical impairment stopping us from speaking of pain, the ineffability is then tied to the impairment rather than pain. For instance: Peter has bitten a bee and now his tongue is swollen to the point he cannot talk. The doctor ask’s if he is in pain and wants painkillers, but Peter cannot answer due to the swelling. In this case the ineffability is an attribute of the swelling, not one inherent to pain. Removing the swelling will make peter able to speak again, despite his pain persisting. This does not mean that pain isn’t ineffable, only that in this case the barrier to execution lies not in it.

Unselectability seems a bit trickier. One may remember, a sentence is unselectable if we are always advised against speaking it.¹⁹² On one hand, we believe that this does not apply to pain. When asked, we would do well in reporting our pain as extensively as we can as to give hints about possible pathologies or treatment options. However, this ignores one possible bias: Men do not report pain to the same extent as women do. A study has shown that there is a difference in reporting pain, based on sex. The difference lies in variations of 7% for threshold, 11% for

¹⁹² Cf. Chapter 2.2.3.

tolerance and 21% for the unpleasantness of pain.¹⁹³ It is not clear why this variance happens. One possible explanation is a difference in feeling pain. Another one could be social conditioning that advises men against speaking up about pain. If a man perhaps feels the same pain as a woman but is due to said conditioning advised against reporting it, then the unselectability criteria applies here. However, this is something that can be overcome and is not universal to all men in all settings and all cultures. Hence, we are cautious with this claim. Nonetheless, biases in reporting hint at unselectability of sentences. It could be that men have a selection mechanism that advises them more strongly against selecting *I'm hurt!*-statements.

Unrepresentability and unabducibility happen when a language lacks the expressive resources necessary to represent a state of affairs. We believe this to be the case with the ineffability of pain. Kukla also employs the known distinctions of weak and strong ineffability, hence we need not repeat them. The question is whether we're dealing with human unrepresentability (all human languages lack the expressive tools), nomological unrepresentability (all successors to humans do not have the expressive tools) or logical unrepresentability (all logical languages lack the expressive tools): we believe that currently all human languages lack the tools for expressing pain such that it is representable, but not to the same degree. Hence pain is weakly ineffable, with the possible option of being strongly ineffable. We cannot make statements about nomological unrepresentability, as the successor to humans is not here yet. Whether all logically possible languages manage to express pain is an equally unanswerable question. What we can say for now though, is that the current logical languages (such as formal semantics or type theory) do not support seem to help us in making pain accessible, while certainly making other non-pain related propositions accessible to us.

2.3.4 Trivial ineffability of pain

This last bit is no refutation to Jonas' notion of trivial ineffability, but perhaps we can find a small remedy.

She claims that all sense perceptions are ineffable since they cannot be expressed in such a way that the other will know what it's like to undergo them. And as this knowledge (or experience) cannot be instilled into someone else. Hence, pain would be trivially ineffable.

For one, this is concession to our claim that pain is in fact ineffable. Therefore, we are also in agreement about pain. Is this ineffability now trivial? Is there no purpose in investigating these

¹⁹³ Cf. Emily A. Wise et al., "Gender role expectations of pain: relationship to experimental pain perception", in: *Pain*, Vol. 96 (3), 2002, 335-342.

cases of ineffability – the ones tied to sense perceptions (qualia)? After all we have investigated pain physically, philosophically and linguistically up to this point. Yet, what we have not done is offer alternatives way of speaking about it. We have not suggested any linguistic approaches to counteract pain's ineffability. We did not, because pain truly seems so ineffable, that finding these ways is a monumental task. Perhaps Jonas is even right in claiming that the ineffability is of such profound nature that it is a given – to the point of triviality.

However, what we do not consider trivial are the *why* and *how* to pain's ineffability. While we might never find better ways of conveying pain, it still bears fruit to look at the mechanisms underneath that ineffability. Sense perceptions, qualia, perception-induced mental states, whatever they may be called - they all play a huge part in our lives. And even if we could never make the redness of red, the taste of saffron, or the pain in our elbows accessible to one another, the unveiling of this ineffability could at least contribute to gaining self-understanding in this regard. Knowing how and why pain is ineffable bears with it the potential to changing our lived experience of pain, even if we cannot give proper sign of it.

Conclusion

The claim of this Master thesis has been that pain is ineffable. Through many areas, this sense of ineffability seems to permeate all discussions of pain: in research, quantifiable measurements for levels of pain have not yet been acquired. In clinical settings, communication challenges between patients and doctors persist. And lastly, our personal experiences also seem not all too clear in their portrayal of how and what we feel precisely. We may give sign of our pain, tell of our hurt, but it seems that the vast array of mechanisms involved, be they physiological or mental, remain mute.

Pain's ineffability means that it cannot be put into words. The root of this phenomenon is – not limited to, but at least – due to two dimensions along which ineffability may occur: the first happens on the level of metaphysics. Pain resists being classified in a manner that would allow us to pinpoint its physiological mechanisms. As of now, no dedicated pain mechanism has been found that would be involved in each case of pain. In addition to this medical lack of clarity, pain also resists being classified philosophically. Theories about perception have equally not yet succeeded in eliciting the nature of pain's experience. Some researchers posit it as a representation of tissue damage, yet others view it as a primarily mental affair, or a command. Pain ultimately evades conventional categories that philosophy of perception aims to ascribe to it.

In addition to resisting metaphysical classifications, be they of physiological or philosophical nature, pain resists being put into words due to linguistic concerns. We have shown this is the case as pain is analogous to other phenomena that share this characteristic: for instance, sensations of smell enjoy a much smaller vocabulary than visual perceptions. Pain too seems to suffer from a small pool of terms and statements at its deposit. We may tell of our pain, but a very large part of the experience remains unsaid – unspeakable. This difficulty to be semantically mapped may also change depending on language.

The claim of pain's ineffability may help us generally to achieve a more nuanced view of pain. In medicine, doctors and patients would benefit from further investigation into making pain accessible for anamnesis and measurement. Philosophers may also conduct research into the link that binds ineffability to perception and language. Pain being an edge case in these mentioned areas may provide ample opportunity for interdisciplinary research. In addition, it

is also desirable to highlight the communication in clinical contexts to ensure an environment that helps patients.

While these areas of research seem promising, as of now many of pain's mysteries are far from being solved. Pain remains elusive. Further inquiry is required in pain's physiological workings, first and foremost. The struggles of traditional conceptions of pain have already been portrayed. In addition, philosophy may want to ask the question on why it struggles to interpret experiences on a nominalist basis. As with terms, perhaps our classifications of experiences are prone to faulty equalizations as well. And lastly, linguistics may want to look further into the mechanisms that make us struggle to put certain experiences into words, while allowing others to flow rather freely.

This thesis aimed at showing that pain is ineffable and the mechanisms that play a leading part in that. Initially, the ineffability of pain may seem an undesirable trait that inhibits research and practice. And while this seems the case, it may also be an avenue that brings with it great potential. Through the results gained by investigating pain, future research may better understand several other phenomena that also resist respective classifications, in addition to better understanding ineffability itself.

Bibliography

- Ahmad, Asma H.; Abdul Aziz, Che B.: "The brain in pain", in: *Malaysian Journal of Medical Science*, Vol. 21, Dec (Special Issue), Penang: Penerbit Universiti Sains Malaysia 2014, 46-54. Url: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4405805/> (last accessed Sept. 7th, 2024).
- Armstrong, David M.: "Bodily Sensations", in: *British Journal of Psychiatry*, Vol. 109, No. 463, London & New York: Routledge & Kegan Paul 1963, pp. 838.
- Aydede, Murat: "Pain: Perception or Introspection?", in: Jennifer Corns (ed.): *Routledge Handbook of Philosophy of Pain*, 1st Edition, London: Routledge 2017. Chapter 18.
- Aydede, Murat: "Pain", in: Edward N. Zalta (ed.): *The Stanford Encyclopedia of Philosophy* (Spring 2019 Edition), Stanford, 2019, Url: <https://plato.stanford.edu/archives/spr2019/entries/pain/>. (last accessed Sept. 7th, 2024)
- Bain, David: "Evaluativist accounts of pain's unpleasantness", in: Jennifer Corns (ed.): *The Routledge Handbook of Philosophy of Pain*, 1st Edition, London: Routledge 2017, 40-50.
- Bain, David: "What Makes Pains Unpleasant?", in: *Philosophical Studies*, Vol. 166 (December Supplement 1), New York: Springer Nature 2013, 69–89.
- Banks, Ian: "No man's land: men, illness, and the NHS", in: *British Medical Journal*, Nov 3 Issue; 323(7320), London: BMJ 2001, 1058–1060.
- Bann, Sevon et al.: "A one-year observational cohort study of menstrual cramps and ovulation in healthy, normally ovulating women", in: *Scientific Reports*, Vol. 12, No: 4738 (2022), New York: Springer Nature 2022, Url: <https://www.nature.com/articles/s41598-022-08658-3> (last accessed Sept. 7th, 2024)
- Berger, Jacob: "Mental States, Conscious and Nonsconscious in": *Philosophy Compass*, Vol. 9 (6), New Jersey: Wiley 2014, 392-401.
- Bird, Alexander; Tobin, Emma: "Natural Kinds", in: Edward N. Zalta (ed.): *The Stanford Encyclopedia of Philosophy*, Stanford 2022, , Url: <https://plato.stanford.edu/entries/natural-kinds/> (last accessed Sept. 7th, 2024)
- Borich, Michael R. et al.: "Understanding the role of the primary somatosensory cortex: Opportunities for rehabilitation", in: *Neuropsychologia*, Vol. 79 (Pt B), 2015 Dec Issue; Amsterdam: Elsevier 2015, 246–255.
- Corns, Jennifer: *The complex reality of pain*, 1st Edition, New York & London: Routledge 2020.
- Cervero & Wood: "A History of Pain Research", in: John N. Wood (ed.): *Oxford Handbook of the Neurobiology of Pain*, New York: Oxford University Press 2019, 1-27.

- Chomsky, Noam: “Knowledge of Language as a Focus of Inquiry”, in: Ruth Nanda Anshen (ed.): *Convergence*, New York: Praeger 1986, Url: <https://sites.pitt.edu/~perfetti/PDF/Chomsky.pdf> (last accessed Sept. 7th, 2024)
- Craig, Arthur D.: “A new view of pain as a homeostatic emotion”, in: *Trends in neurosciences*, Vol.26 (6), Amsterdam: Elsevier 2003, 303-307.
- Cutter, Brian; Tye, Michael: “Tracking Representationalism and the painfulness of pain”, in: *Philosophical Issues*, Vol. 21 (1), New Jersey: Wiley 2017, 90-109.
- Dretske, Fred: “Knowing it Hurts”, in: Joseph Campbell (ed.): *Knowledge and Skepticism*, Cambridge: MIT Press 2010, 203.
- Dubin, Adrienne E.; Patapoutian, Ardem: “Nociceptors: The sensors of the pain pathway”, in: *Journal of Clinical Investigation*, Vol 120 (11), ASCI, 2010, Url: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2964977/> (last accessed Sept. 7th, 2024)
- Frege, Gottlob (1892): *Über Sinn und Bedeutung*, (Hg.) Uwe Voigt, Ditzingen: Phillip Reclam Verlag 2019.
- Frisette, Deni: “Brentano on Presenting Something as an Intentional Object”, In: Fosca Mariani Zini: *The Meaning of Something - Rethinking the Logic and the Unity of the Ontology*, as part of: *Logic, Argumentation & Reasoning*, Vol. 29, Switzerland: Springer Nature 2022, 1-30.
- Gäb, Sebastian: “Ineffability: The Very Concept”, in: Ramat Gan (ed.): *Philosophia*, Vol. 48 (5), Dordrecht: Springer Netherlands 2020, 1825-1836.
- Garland, Eric L.: “Pain Processing in the Human Nervous System: A Selective Review of Nociceptive and Biobehavioral Pathways”, in: *Primary Care: Clinics in Office Practices*, Vol. 39 (3), Amsterdam: Elsevier 2012, 561-571.
- Gennaro, Rocco J.: “What is the Structure of Self-Consciousness and Conscious Mental States?”, in: *Review of Philosophy and Psychology*, Vol. 13 (No.2) Dordrecht: Springer Netherlands 2022, 295-309.
- Gerken, Mikkel: “Puzzling Patterns of Knowledge Ascriptions”, in: Mikkel Gerken (ed.): *On Folk Epistemology: How we Think and Talk about Knowledge*, Oxford: Oxford University Press 2017, 20-43.
- Barth, Fredrik T. et al: *One discipline, four ways: British, German, French and American Anthropology*, Chicago: University of Chicago Press 2005.
- Hall, Richard J.: “If it itches, scratch!”, in: *Australasian Journal of Philosophy*, Vol. 86 (4), Abington: Routledge 2008, 525-535.
- Hawley, Katherine; Bird, Alexander: “What are natural kinds?”, in: *Philosophical Perspectives*, Vol. 25 (1), New Jersey: Wiley 2011, 205-211.

Harlow, SD; Park, M.: “A longitudinal study of risk factors for the occurrence, duration and severity of menstrual cramps in a cohort of college women” in: *British Journal of Obstetrics & Gynaecology*, Vol. 103 (11), New Jersey: Wiley 1996, 1134-42.

Hobbs, P.V.: *Introduction to atmospheric chemistry*, Cambridge: Cambridge University Press 2012, 21-32.

Hume, David (1739): *A Treatise of Human Nature by David Hume*, reprinted from the Original Edition in three volumes and edited, with an analytical index, by L.A. Selby-Bigge, M.A., Oxford: Clarendon Press 1896, Url:

https://www.files.ethz.ch/isn/125487/5010_Hume_Treatise_Human_Nature.pdf (last accessed Sept. 7th, 2024).

Jacob, Pierre: “Intentionality”, in: Edward N. Zalta (ed.): *Stanford Encyclopedia of Philosophy*, Stanford 2023, Url: <https://plato.stanford.edu/entries/intentionality/> (last accessed Sept. 7th, 2024)

Jonas, Silvia: *Ineffability and Its Metaphysics: The Unspeakable in Art, Religion, and Philosophy*, New York: Palgrave Macmillan 2016.

Kahn, Johra et al.: “Genetics, pathophysiology, diagnosis, treatment, management, and prevention of migraine” In: *Biomedicine & Pharmacotherapy*, Vol. 139 (July Issue: 111557), Amsterdam: Elsevier 2021. Url:

<https://www.sciencedirect.com/science/article/pii/S0753332221003425> (last accessed Sept. 7th, 2024)

Katz, Joel; Rosenbloom, Brittany N.: “The golden anniversary of Melzack and Wall’s gate control theory of pain: Celebrating 50 years of pain research and management.”, in: *Pain research & management*, Vol. 20 (6), Oakville: Hindawi Limited 2015, 285-286.

Kitchener Richard F.: “The Epistemology of Folk Epistemology” in: *Analysis*, Vol. 79 (3), July Issue, Oxford: Oxford University Press 2019, 521–530.

Klein, Colin: *What the Body Commands: The Imperative Theory of Pain*, 1st Edition, Cambridge MA: MIT Press 2015.

Kriegel, Uriah: “The intentional structure of mood”, in: *Philosophers' Imprint*, Vol. 19, Ann Arbor: University of Michigan Press 2019, 1-19.

Kripke, Saul A.: “Naming and Necessity”, in: Davidson & Harman (Eds.): *Semantics of Natural Language*, Synthese Library 1972, 253-355. Url:

<https://uh.edu/~garson/NamingandNecessity.pdf> (last accessed Sept. 7th, 2024)

Kuhlen, Franz-Josef: “Historisches zum Schmerz und Schmerztherapie”, in: *Pharmazie in unserer Zeit*, Vol. 31 (1), New Jersey: Wiley 2002, 13-22.

Kukla, Andre: *Ineffability and Philosophy*, 1st Edition, London: Routledge, 2005.

Kukla, Andre: “Epistemic boundedness”, in: *Interntaional Studies in the Philosophy of Science*, Vol. 7 (2), London & New York: Routledge & Kegan Paul 1993,b 121-126.

Kusch, Martin; Ratcliffe, Matthew: “The World of Chronic Pain”, in: Kevin Aho (ed.): *Existential Medicine: Essays on Health and Illness*, Lanham: Rowman & Littlefield 2018, 61-80.

Lemaire, G.S.: “More Than Just Menstrual Cramps: Symptoms and Uncertainty Among Women with Endometriosis”, in: *Journal of obstetric, gynecologic, and neonatal nursing*, Vol. 33 (1), Amsterdam: Elsevier 2004, 71-79.

Levinson, S.C.: *Presumptive Meanings: The Theory of Generalized Conversational Implicature*, Cambridge MA: MIT Press, 2000.

Levinson, Stephen C.; Majid, Asifa: “Differential ineffability and the Senses”, in: *Mind & Language*, Vol. 29 (4), New Jersey: Wiley 2014, 407-427.

Levy, Dan et al.: “Current understanding of meningeal and cerebral vascular function underlying migraine headache”, in: *Cephalalgia*, Vol. 39, (13), London: SAGE Publishing, 2019, 1606-1622.

Light, Alan R. & Lee, S.: “Spinal Cord Physiology of Nociception”, in: Richard H. Masland (ed.): *The Senses: A Comprehensive Reference*, Amsterdam: Elsevier 2008, 312.

Lipton, Richard B. et al.: “Migraine Diagnosis and Treatment: Results from the American Migraine Study II”, in: *Headache: The Journal of Head and Face Pain*, Vol. 41 (7), Boston: Blackwell Science 2001, 638-645.

Liu, Shuang; Kelliher, Leigh: “Physiology of pain—a narrative review on the pain pathway and its application in the pain management”, in: *Digestive Medicine Research*, Vol. 5, 2022, Url: <https://dmr.amegroups.org/article/view/8443/html> (last accessed Sept. 7th, 2024)

Martinez, Manolo: “Imperative content and the painfulness of pain” in: *Phenomenology and the Cognitive Sciences*, Vol. 10 (1), Dordrecht: Springer 2011, 67-90.

McCaffery, Margo; Beebe, Alexandra: *Pain: Clinical Manual for nursing practice*, St. Louis: Mosby 1989.

McKinsey, Michael: “Krippe’s objections to description theories of names”. In: *Canadian Journal of Philosophy*, Vol. 8 (3) Cambridge CA: Cambridge University Press 1978, 485-497.

Mercier, Hugo: “The Social Origins of Folk Epistemology”, in: *Review of Philosophy and Psychology*, Vol. 1 (4), New York: Springer 2010, 499-514.

Moayedi, Massieh; Davis, Karen D.: “Theories of pain: from specificity to gate control”, in: *Journal of Neurophysiology*, Vol. 109 (1), American Physiological Society 2013, 5-12.

Melzack, Ronald: “Pain and the Neuromatrix in the Brain”. In: *Journal of Dental Education*, Vol. 65 (12), Washington DC: American Dental Education Association 2001, 1378-1382.

Melzack, Ronald; Wall, Patrick D.: *The Challenge of Pain*, Updated 2nd Edition, London: Penguin, 1988.

Mioton, Lauren M. et al.: “Targeted Muscle Reinnervation Improves Residual Limb Pain, Phantom Limb Pain, and Limb Function: A Prospective Study of 33 Major Limb Amputees”, in: *Clinical orthopaedics and related research*, Vol. 478 (9), Philadelphia: Lippincott Williams & Wilkins 2020, 2161-2167.

Nagel, Thomas: “What Is It Like to Be a Bat?” in: *The Philosophical Review*, Vol. 83, (4), Boston: Sage School of Philosophy of Cornell University 1974, 435–50.

Nietzsche, Friedrich: Über Wahrheit und Lüge im außermoralischen Sinne, Gutenberg Edition 16, Projekt Gutenberg, Url: <https://www.projekt-gutenberg.org/nietzsch/essays/wahrheit.html> (last accessed Sept. 7th, 2024)

Payen, Jean-Francois et al.: “Assessing pain in critically ill sedated patients by using a behavioral pain scale”, in: *Critical Care Medicine*, Vol. 29 (12), Illinois: Society of Critical Care Medicine, 2258-63.

Pitt, David: 2020: “Mental Representations”, in: Edward N. Zalta (ed.): *The Stanford Encyclopedia of Philosophy*, Stanford 2020, Url: <https://plato.stanford.edu/entries/mental-representation/> (last accessed Sept. 7th, 2024)

Price, Donald D.: *Psychological Mechanisms of Pain and Analgesia*, Seattle: IASP Press, 1999.

Price, Donald D. et al.: “Neurons involved in the exteroceptive function of pain”, in: *Pain*, Vol. 106 (3), Amsterdam: Elsevier 2003, 215-219.

Ratcliffe, Matthew: “Why mood matters”. In: (Ed.) Mark. Wrathall: *The Cambridge Companion to Heidegger's Being and Time*, Cambridge: Cambridge University Press 2013, 157-176.

Rorty, Richard: “Incorrigibility as the Mark of the Mental”. In: *Journal of Philosophy*, Vol. 67, (12), New York: The Journal of Philosophy Inc. 1970, 399-424.

Russell, Bertrand (1905): “On Denoting”. In: *Mind*, Vol. 114, (456), Oxford: Oxford University Press 2005, 873-887.

Siewert, Charles: *The Significance of Consciousness*, Princeton: Princeton University Press 1998.

Sikora, R.I.: “Rorty's Mark of the Mental and his Disappearance Theory”, in: *Canadian Journal of Philosophy*, Vol. 4 (1), Cambridge: Cambridge University Press 1974, 191-193.

Schlager et al.: “Chemical Composition of the Atmosphere”, in: Ulrich Schumann (ed.): *Atmospheric Physics: Background – Methods – Trends Research Topics in Aerospace*, as part of: *Research Topics in Aerospace*, Heidelberg: Springer-Verlag 2012, 17-36.

Smart et. al.: “Towards a mechanism-based classification of pain in musculoskeletal physiotherapy?”. In: *Physical Therapy Reviews*, Vol. 13, No.1, 2008, Url: https://www.researchgate.net/publication/233548804_Towards_a_mechanisms-based_classification_of_pain_in_musculoskeletal_physiotherapy (last accessed Sept. 7th, 2024)

Stankevicius, Anna et al.: “Prevalence and incidence of phantom limb pain, phantom limb sensations and telescoping in amputees: A systematic rapid review”, in: *European Journal of Pain*, Vol.25, (1), New Jersey: Wiley 2021, 23-38.

Tuomas, K.P.: “The Five Marks of the Mental”. In: *Frontiers in Psychology*, Vol. 08, Switzerland: Frontiers Media S.A 2017, 1084-1103.

Tye, Michael: “Representationalism and the Transparency of Experience”. In: *Nous*, Vol. 36 (1), Oxford UK & Boston USA: Blackwell 2002, 137-151.

Tye, Michael: “Another Look at Representationalism About Pain”, in: Murat Aydede: *Pain: New Essays on its Nature and the Methodology of its Study*, Boston: MIT Press 2006, 99-120.

Willis, William D. Jr., Coggeshall, Richard E.: *Sensory Mechanisms of the Spinal Cord*, 3rd Edition, New York: Springer 2003.

Wise, Emily A. et al.: „Gender role expectations of pain: relationship to experimental pain perception in: *Pain* Vol. 96 (3), IASP Press 2002, 335-342, Url: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2535906/> (Last accessed Sept. 7th, 2024)

Abstract (German)

Die folgende Arbeit ist eine phänomenologische und linguistische Analyse von physischem Schmerz. Weshalb sind Schmerzen subjektiv und warum finden wir es schwierig zu kommunizieren, was mit uns passiert, wenn wir an Schmerzen leiden? Die Untersuchung beginnt mit Schmerz als Phänomen: Die medizinische Forschung hat bis dato noch keinen definitiven Mechanismus gefunden, der alleinig für Schmerzen verantwortlich wäre. Es scheint kein Schmerz-Zentrum zu geben. Zusätzlich, hat die Philosophie der Wahrnehmung ebenfalls versucht eine Erfahrungsqualität zu identifizieren, die nur dem Schmerz inhärent wäre. Beide Stränge, medizinische und philosophische Forschung, waren in ihren Bestrebungen nicht erfolgreich. Schmerz scheint sich nicht klassifizieren zu lassen. Aufgrund dessen empfehlen wir eine nominalistische Auffassung von Schmerzen.

Anschließend, wird die Natur der Unaussprechlichkeit untersucht. Manche körperlichen Wahrnehmungen scheinen leichter in Worte zu fassen als andere. Die zugrundeliegenden Mechanismen der Unaussprechlichkeit werden präsentiert und anschließend auf Schmerz angewandt. Abschließend wird geschlussfolgert, dass Schmerz in hohem Grade unaussprechlich ist, zusätzlich zur Eigenschaft sich metaphysisch kategorisieren zu lassen. Das Ergebnis dieser zwei Argumentationsstränge bestärken die Auffassung, dass jeder Schmerz individuell zu betrachten und zu behandeln ist.

Abstract (English)

The following thesis presents a phenomenological and linguistic analysis of pain. Why are pains subjective and why do we find it difficult conveying what is happening to us when we suffer them? The investigation starts with pain as a phenomenon: medical research has shown that no definitive mechanism has been found that could solely be responsible for pain. There seems to be no pain centre. In addition, philosophy of perception has equally sought to identify a quality that no experience but pain might have. However, both medical and philosophical research has not succeeded in delivering on their metaphysical promises. Pain seems to resist classifications and therefore a nominalist account is suggested.

Following this proposal, we investigate the nature of ineffability. Some bodily perceptions are more difficult to put into words than others. The mechanisms underlying this are presented and then applied to pain. It is then concluded that pain itself is ineffable to a rather strong degree in addition to resisting metaphysical classification, further strengthening our suggestion to view and treat each pain individually.

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