BEYOND NATURALISM AND SOCIAL CONSTRUCTIONISM: THE FUNCTION OF PHENOMENOLOGY IN PAIN RESEARCH

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Abstract: The article offers an account of naturalism and social constructionism conceived as the dominant methodological standpoints in contemporary pain research. Besides presenting these methodological orientations, the essay also shows in which sense phenomenology constitutes a viable alternative to them. The paper argues that naturalism in pain research can take two forms, extreme or moderate. In its extreme form, naturalism identifies pain with the physiological mechanism, understood as a brain state. In its moderate form, it identifies pain as a psychological response to physiological stimuli. Besides clarifying the fundamental ontological and methodological commitments of naturalism, the article gives a brief account of the dominant theories of pain–the specificity theory, the pattern theory, the affect theory, and the gate control theory–and argues that they all fully subscribe to the methodological and ontological principles of naturalism. The paper further argues that the chief strength of a naturalistic conception of pain lies in its capacity to answer the question of the meaning of pain, clarifying this meaning biologically either as a means of avoidance or as a repair system. Furthermore, the article suggests that IASP definition of pain also relies on the naturalistic conception of pain outlined here. Just like naturalism, social constructionism in pain research can be understood either in its extreme or moderate form, depending on whether one argues that the experience of pain, or the reaction, expression, and conception of pain experience is shaped

socio-historically. The paper argues that the social constructionist standpoint in pain research remains to this day without definition. The article also presents the phenomenological standpoint in pain research conceiving of it as a non-reductive methodology to thematize the experience of pain. The paper furthemore sketches a novel conception of pain that is grounded in phenomenological principles as follows: pain is an *aversive sensory feeling which can only be given in original first-hand experience and which has four essential qualifications, namely it is temporally extended, localizable within the body, has a certain intensity and a distinct experiential quality*. This definition suggests that pain is neither a naturalistic, nor a socio-cultural phenomenon. Rather, pain is a lived experience, and only by *modifying* this experience can we render it an appropriate scientific theme, which can then be studied in accordance with the established principles of naturalism or social constructionism.

Keywords: pain research, phenomenology, naturalism, social constructionism, definition of pain, theories of pain.

This paper strives to map out the field of contemporary pain research and draw the lines that demarcate different methodologies. I want to argue against the common view that naturalism and social constructionism are the only possible standpoints in pain research. My goal is to show that naturalism and social constructionism rest on tacit presuppositions, whose philosophical clarification calls for a phenomenology of pain. Since these presuppositions concern the concept of pain, my goal here is to offer a critique of established conceptions of pain and to present what I would call a phenomenological definition of pain.[1]

What does it mean to be a naturalist, social constructionist or a phenomenologist in pain research? We face here three different approaches to the basic question: what is pain? These three approaches raise this question in significantly different ways. The naturalist asks: how must the brain function for it to allow the subject to undergo different kinds of pain sensations? Having formulated the principal question in such a way, a naturalist is led to clarify pain as a neurological phenomenon. The social constructionist poses the central question

1 In the present context, I will not engage in those philosophical analyses of pain which we come across either in phenomenology or in other philosophical traditions. Let me nonetheless mention in passing that, as far as contemporary philosophy of pain is concerned, more work has been done in analytical philosophy than in phenomenology. In this regard, Hardcastle's (1999), Aydede's (2005) and Grahek's (2007) well-known studies deserve special mentioning. As far as phenomenology is concerned, all-in-all only three book-length studies have appeared in print: Grüny's (2004), Olivier's (2007) and Geniusas' (2020). In this framework, Leder's (1990 and 2016) and Serrano de Harro's (2011, 2012 and 2017) shorter studies should not be overlooked.

differently: how do social, cultural and historical influences shape the human experience of pain? A social constructionist is thereby led to clarify pain in terms of cultural, historical and social influences. One can formulate the phenomenological question as follows: what is pain experience as such, irrespective of any conditions or any pregiven methodological frameworks? For a phenomenologist, the task is to clarify pain as lived experience, without reducing it either to brain structures, or to socio-cultural influences. Let us turn to these three methodological standpoints starting with naturalism.

Naturalism in Pain Research: Ontological and Methodological Commitments

The term "naturalism" is not univocal. With the aim of clarifying its meaning in pain research, it is fruitful to distinguish between two components, an ontological and a methodological. Ontologically, a naturalist is committed to the view that everything that is, is a piece of physical nature. In the science of pain, this commitment leads one to interpret everything biological, cognitive and emotive as specific configurations of neurological elements. Methodologically, a naturalist is committed to the idea that nature is to be explained by discovering the exact physical laws, which in their own turn are to be established in conformity with the prevailing methods in the natural science. In the case of pain research, this entails a commitment to the fundamental principles of such sciences as biology, psychology and cognitive science. A naturalistic explanation dismisses all appeals that cannot be explained in terms of physical processes. In the case of the science of pain this means that a naturalistic explanation must account for pain experience in terms of neurological processes. These methodological and ontological commitments are complementary and in the framework of pain research they walk hand-in-hand.

The naturalism that pervades the science of pain could be further qualified as a type of *physicalistic reductionism*: it clarifies appearances not in terms of their phenomenality but as configurations of physical matter, arranged in the order of causality. In virtue of its methodological and ontological commitments, naturalism could be also qualified as a form of a *hermeneutics of suspicion*, which clarifies phenomena not in terms of how they appear in experience, but precisely in terms of how they do not appear. Thus, even though nobody has direct experiential access to the neurological mechanisms that make up the physiological substructure of pain experience, the naturalistic standpoint suggests that it is precisely these mechanisms, which are fundamentally cut off from experience, that constitute the truth of pain experience. Supposedly, one understands what pain is when, as the classic feature detection view suggests, one explains it as a complex sensory system. For pain to be experienced, information must be gathered at

the periphery and then transferred either through the A-delta fibers or the C fibers to the dorsal horn. From there some neurons ascend to the brain stem while others to the thalamus. Those axons that reach the thalamus synapse with another set of neurons and travel further to the frontal cortex, while others project to the somatosensory cortex (See Hardcastle, 1999, pp. 101–103). The complicated forms of interrelation between the surface, the dorsal horn, the reticular formation, the thalamus, the frontal cortex and the somatosensory cortex allow one to account for different types of pain, such as transient, acute and chronic, and for the different qualities of pain, such as "first pain" (fast, sharp and pricking pain that arises from injury) and "second pain" (slow, dull and burning pain of recovery). According to the naturalistic standpoint, our understanding of this complex neurological system holds the key to unlocking the secrets of pain experience.

In the framework of pain research, naturalism can take two fundamental forms, which for lack of better terms, one could qualify as an extreme and a moderate one. The distinction between them relies on the confusion that surround the concept of the response to pain, or "pain-reaction."[2] Some conceive of pain as a psychological experience and further conceptualize the different kind of emotional and cognitive responses one can have to it. Others speak of the actual experience of pain as itself being a response to physiological processes. In light of this confusion, one can draw a distinction between moderate and extreme forms of naturalism in pain research. A moderate naturalist holds on to the distinction between the biological and the psychological and understands pain as a psychological experience. A moderate naturalist contends that pain is a psychological *response* to physiological stimuli; it is a psychological experience provoked by a neurological mechanism. Patrick Wall provides us with a good illustration of this form of naturalism in his *Pain: The Science of Suffering*, where pain is conceived according to the model "The Body Detects, the Brain Reacts" (See Wall, 2000, pp. 31–46). By contrast, according to the extreme standpoint, pain only appears to be a psychological experience, while in truth it is a physiological mechanism, understood as a brain state. But if so, then what we usually call pain is not pain at all, but rather a psychological *response* to pain. Valerie Grey Hardcastle provides us with a good illustration of such a form of naturalism in her celebrated *The Myth of Pain*.

2 As Roger Trigg put it still in 1970, "unfortunately, the term 'pain-reaction' has been used in recent years to refer to anything from the central feeling of pain to remote consequences of the experience. As a result, considerable confusion has been engendered, and all too often a slide from one sense of the phrase to another has been made almost imperceptibly.... The tendency of some physiologists to talk of 'pain receptors' and 'pain pathways' may further the confusion.... This terminology is profoundly misleading. The impulses are not themselves pain, and to call them 'pain-impulses' can be dangerous" (Trigg, 1970, pp. 61–62, 74).

Whichever form it takes – the moderate, or the extreme – naturalism in pain research is a position that clarifies pain as an effect that is triggered by neurological causes. In the first case, pain is clarified as a psychological experience that arises out of neurological processing, while in the second case, pain is explained as a physiological processing. For a naturalist, to understand pain is to clarify it either as a neurological mechanism, or as a psychological experience that is provoked by a neurological mechanism.

The Dominant Theories of Pain

In the science of pain, the commitment to naturalism remains an unquestioned presupposition and the conflicts of interpretations are triggered by competing attempts to provide the most coherent clarification of pain in line with the above-mentioned methodological and ontological commitments. This becomes especially clear when one turns to the dominant theories of pain – the specificity theory, the pattern theory, the affect theory and the gate control theory as the dominant theories of pain. My aim here is not to provide an exhaustive account of each theory but only to demonstrate that they all rest on the above-mentioned naturalistic assumptions.

The specificity theory is the classical physiological theory of pain which, as Melzack and Wall have remarked, is often presented not so much as a thetaory, but as a factual description of the neurological nature of pain experience (See also Thacker, 2015, p. 3). The specificity theory accounts for pain as a system which carries the pain message from pain receptors in the skin to the pain center in the brain. We face here an ascending system which, as Descartes argued, resembles the bell-ringing mechanism in the church: one pulls the rope at the bottom of the tower and consequently the bell rings in the belfry. To confirm that this basic image represents the physiological structure of pain experience, Von Frey demonstrated that the free nerve endings are pain receptors, that touch, warmth, cold and pain constitute the four main cutaneous modalities, and that each of these modalities projects the messages to the brain center in which the brain sensation is felt. These findings were further supplemented with the identification of the pain fibers in the nervous system, the pain pathway in the spinal cord, and the pain center in the thalamus (admittedly, the latter point remains controversial). According to the specificity theory, pain arises when specific pain receptors in body tissue carry specific information via pain fibers and a pain pathway to a pain center in the brain. We face here a naturalistic theory of pain, which fully subscribes to the methodological and ontological principles of naturalism, and which gives us a classical account of pain as a neurological mechanism.

In the science of pain, this theory is attacked not because of its naturalistic commitments, but because of its limited capacity to provide

a naturalistic account of pain, taken in all its diverse forms and modalities. First, this theory appears ill-suited to explain the highly flexible relationship between the pain stimulus and the pain sensation (it is by no means the case that the intensity of the stimulus corresponds to the equal intensity of the sensation). Second, this theory leaves various types of pain unexplained (e.g. phantom limb pain, causalgia or neuralgia are types of pain that cannot be accounted for within the parameters of the specificity theory).

The pattern theory is an umbrella term that covers various theories (such as peripheral pattern theory, central summation theory, and sensory interaction theory) that explain the incongruity between the intensity of the stimulus and the intensity of the pain sensation. The main insight that underlies this group of theories was formulated by Alfred Goldscheider who argued that mechanisms of central summation, located in the dorsal horns of the spinal cord, formed an essential part of pain mechanisms. Central summation accounts not only for how weak stimuli (such as a touch of a feather) can provoke intolerable pain, or how strong stimuli (such as a loss of a limb) can, for a time, provoke only slightly painful sensations, or no pain at all. This theory also accounts for the temporal gap that separates the stimulus and the pain sensation. According to this theory, there is no one-to-one relation between the pain stimulus and the pain sensation. Rather, the pain sensation arises "due to excessive peripheral stimulation that produces a pattern of nerve impulses which is interpreted centrally as pain" (Melzack and Wall, 2008, p. 158). One is now in the position to understand some pain pathologies such as phantom limb pain: the initial damage to the limb and its removal initiate abnormal firing patterns in the dorsal horns of the spinal cord which send nerve impulses to the brain, while the brain in its own right gives rise to pain. I want to stress that just as in the case of the specificity theory, so also in the case of the pattern theory we are faced with a neurological account that fully subscribes to both methodological and ontological principles of naturalism. In both cases pain is conceived as an effect that follows neurological deviations; the differences between the outlined theories does not concern these fundamental commitments, but the exact ways in which one provides a naturalistic explanation of the abnormalities in question.

The affect theory of pain arises as a protest against a common assumption shared both by the specificity and the pattern theories. According to H.R. Marshall—the founder of the affect theory—pain is an emotional quality that colors all sensory events. The exclusively sensory approach to pain fails to give a full account of pain experience in that it relegates motivational and cognitive processes to matters of secondary importance. The affect theory of pain arises as a reaction against this form of reductionism. The affect theory rejects the view implicit in the specificity theory which conceives of emotional and cognitive components as reactions to sensory processing. However,

such a form of rejection does not compromise the theory's commitment to the ontological and methodological principles of naturalism. Here, the emotional component of pain experience is not understood as a dimension that lies beyond neurological processes. Quite on the contrary, according to the affect theory, *all* pain processes are neurological. More precisely, this theory suggests that the noxious stimulation activates two parallel systems, one of which is the basis of the affective properties of experience, while the other one underlies the sensory properties. We are thus once again faced with a theory that fully subscribes to the methodological and ontological commitments of naturalism.

The gate control theory, introduced by Melzack and Wall in 1965, suggests that pain signals do not travel freely from the periphery to the brain. Put metaphorically, there are certain "neurological gates" in the spinal cord that these signals need to pass. These gates can be either open or closed; moreover, they can be opened more or less narrowly or widely. All of this depends on other sensory input the brain receives. Whether the pain signal reaches the brain or not depends on three factors: the intensity of the pain signal, the intensity of other non-painful signals, and the signal sent from the brain itself. If other non-painful sensory signals are more intense than the pain signal, they will override the pain signal and the brain will either not experience pain at all, or will experience a relatively slight pain, disproportionate to the pain signal. According to this theory, the pain signal transmission is influenced not only by other non-painful sensory input, but also by emotions and thoughts. This is the reason why our ability to focus our thoughts and feelings on matters other than pain has far-reaching therapeutic consequences. The brain itself sends messages through the descending fibers that can either reduce, stop or intensify the transmission of the pain signal. Thus, in contrast to the specificity theory, the intensity of pain does not depend only on the intensity of the stimulus, but also on how wide the neurological gates are open; and whether they are open or not depends on other sensory input as well as on the messages sent by the brain.

The strength of the gate control theory lies in its capacity to clarify 1) why the relationship between injury and pain is as variable as it is; 2) why pain persists in the absence of injury or after healing; 3) why the nature of pain so often changes with the passage of time; 4) why there is no adequate treatment for certain forms of pain. The brief sketch of the theory I have offered here is only meant to corroborate my thesis that naturalism constitutes the fundamental methodological outlook that underlies all the dominant theories of pain. The strength of the gate control theory lies in its capacity to demonstrate that, in contrast to the specificity and the pattern theories, the emotional and cognitive dimensions are not secondary to the sensory dimension of pain experience. In contrast to the affect theory, its further strength lies in its capacity to explain that the emotional and cognitive components do

not arise only when they are triggered by the pain stimulus, but that they can also "descend" from the brain and in a direct way contribute to the formation of the quality of pain. It thereby becomes clear that pain is an irreducibly multidimensional phenomenon. Yet let us not overlook that the multidimensionality of pain is accounted for within a naturalistic framework. We are once again led to the conclusion that pain is a neurological phenomenon and it is here, at the neurological level, that it incorporates sensory, emotive and cognitive components.

The Biological Meaning of Pain: Pain as Avoidance and Repair System

One of the chief strengths of a naturalistic conception of pain lies in its capacity to answer the question concerning the meaning of pain. According to the dominant answer, this purpose is biological. To conceive of pain naturalistically is to conceptualize pain as a neurological phenomenon, in Paul Brand's famous words, as a gift that nobody wants.[3] One can conceive of pain as a biological gift in two ways: as a means of avoidance and as a repair system.

Insofar as pain is conceived as a gift that enables us to avoid injury, it is conceptualized as a sensation that is triggered by impulses that travel along two physiologically specialized neural structures, the so-called Aδ fibers and the C fibers. Impulses travel along the Aδ fibers at a fast pace (at 6 to 30 m/s), while the C fibers carry them slowly (at 0.5 to 1.5 m/s). Because of this neurological reason, the excitation of the Aδ fibers provokes fast, sharp and pricking pain, also known as the first pain, or the alarm pain. By contrast, the impulses carried by the C fibers are related to slow, dull and burning pain, also known as second pain. As M. Ploner et al. put it, "first pain signals threat and provides precise sensory information for an immediate withdrawal, whereas second pain attracts longer-lasting attention and motivates behavioral responses to limit further injury and optimize recovery" (Ploner et al., 2002, p. 12444). The pain that is provoked both by the Aδ fibers and the C fibers entails detailed information about the location of the stimulus that gave rise to pain and for this very reason one can say that pain performs a twofold biological function: it enables the organism to protect itself against the imminent threat; it also enables the organism to restore the healthy state.

As far as the protective system is concerned, pain can be both pre-conscious and conscious. At the pre-conscious level, pain relates to withdrawal reflexes such as flexion reflex and the corneal reflex. At the conscious level, it provokes movement and manipulation. In

3 In its original version, Paul Brand's and Philip Yancey's award winning *The Gift of Pain* was called *The Gift Nobody Wants*.

either case, pain is a message sent to the brain via the nociceptive Aδ fibers that informs the brain of the potential biological threat that the thermal stimulus will induce if the organism does not establish safe distance from the stimulus. With the passage of time, a long-lasting sensation of a different kind of pain kicks in, that pain which is carried by the C-polymodal nociceptors. In the first case, the brain senses pain as an approaching threat; in this regard pain performs the necessary function without which the brain could not avoid the approaching danger.[4] In the second case, the brain senses pain as an actual damage that has been inflicted on the organism. This second pain does not function as an avoidance signal that announces an approaching threat, but as a message that persistently reminds the organism not to overexert itself, to slow down its otherwise natural activities while it restores the lost balance and equilibrium. In short, insofar as pain performs a restorative function, it prevents the organism from inflicting further damage to the already injured areas in the body.

In the present context, I only wish to stress that the biological conception of pain as avoidance and repair system relies just as heavily on a naturalistic conception of pain as all the dominant theories of pain sketched in the earlier section.

The Naturalistic Definition of Pain

What, then, is pain, when considered in light of the above-mentioned theories of pain and alongside the different biological functions that pain can perform, or (as in the case of chronic pain) fail to perform? In 1979, the International Association for the Study of Pain (IASP) devised a definition of pain that aimed to accommodate the above-mentioned discoveries and developments. According to the proposed definition, "pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage" (Merskey and Bogduk, 1994, p. 209).[5] While the references drawn to actual and potential tissue damage accommodate the specificity and the pattern theories of pain, the emphasis placed not only on sensory but also on emotional experience accommodates the affect and the gate control theories of pain.

This definition was accompanied with a note, which stressed that "pain is always subjective." In full conformity with the affect theory, the note further suggested that pain "is unquestionably a sensation

4 Regrettably, such a conception of pain is deeply equivocal. As we will see in Chapter VII, the brain cannot be conceived as the subject of pain. The subject of pain is the person conceived phenomenologically and not the brain conceived neurophysiologically.

5 For Merskey's further clarification of what is entailed and what is not entailed in this definition, see Merskey 1991, 157–158.

in a part or parts of the body, but it is also always unpleasant and therefore also an emotional experience." So also, in full agreement with the gate control theory, the note further specified that many people report pain in the absence of tissue damage or any likely pathophysiological cause; usually this happens for psychological reasons." While expressing its agreement with the specificity theory and its identification of nociception as a reliable account of *one* type of pain, the note rejected the possibility of universalizing this clarification: "This definition avoids tying pain to the stimulus." Moreover, in opposition to what I have identified above as the extreme form of naturalism, the note further stressed that "activity induced in the nociceptor and nociceptive pathways by a noxious stimulus is not pain, which is always a psychological state, even though we may well appreciate that pain most often has a proximate physical cause."

In light of this last remark it should come as no surprise that the proponents of the extreme form of naturalism found the definition unacceptable.[6] This being said, all the definition requires of a naturalist is to give up the extreme commitment, namely the view that pain is not a psychological but a biological process. Insofar as a naturalist agrees that pain is a psychological state, he should not find the definition too troubling, since it leaves the possibility open to explain psychological states as correlated with and caused by neurological processes.

It remains puzzling why this established definition would conceptually tie *all* experiences of pain with tissue damage, be it actual or potential. According to one common classification, there are three fundamental types of pain: nociceptive, neuropathic, and psychogenic. Only nociceptive pain is explained by tissue damage. By contrast, neuropathic pain is accounted for in light of damage to the nervous system while psychogenic pain derives from psychological causes. Admittedly, neuropathic pain often arises as a modification of nociceptive pain; so also, the origins of psychogenic pain commonly lie either in neuropathic or in nociceptive pain. This being said, it would be too imprecise and reductive, either physiologically or phenomenologically, to reduce neuropathic and psychogenic pain to mere consequences that stem from nociception. The contention that pain, by definition, must be "associated with actual or potential tissue damage, or described in terms of such damage," constitutes a highly questionable aspect of the IASP definition of pain.

The problem we face here concerns not only the soundness but also the validity of the proposed conception. It is by no means clear how to reconcile the alleged association of pain and tissue damage with the already quoted remark in the note: "many people report pain

6 "It is my contention that this sort of subjectification of pain is not preferable, for a variety of reasons. First, if pains are not correlated with actual injury, or the potential for damage, then we lose our intuitive evolutionary story about why we have a pain-sensing system" (Hardcastle, 1999, p. 128).

in the absence of tissue damage or any likely pathophysiological cause." What the definition gives with one hand, it takes away with another. The IASP definition expresses the general uncertainty in the science of pain concerning the status of neuropathic and especially psychogenic pain.

These philosophically oriented reflections on the commitments, developments and discoveries in the science of pain are meant to serve only one purpose, viz., to corroborate the claim that a commitment to naturalism, understood in the above-mentioned way, constitutes the fundamental methodological outlook in the science of pain. Having established this thesis, let us turn to other forms of pain research, namely, those that we come across in the human and social sciences. The studies of pain in such disciplines as cultural anthropology, history or sociology are marked by an entirely different kind of methodological commitment, namely, a commitment to social constructionism. Alongside predominantly physiological conceptions of pain, we also harbor an understanding of other, non-physiological factors that play a role in the experience of pain. Nonetheless, at the conceptual level the relation between the physiological and non-physiological components remains unclarified.

Social Constructionism in Pain Research

As E. Diaz-Leon has recently put it, "it does not make much sense to look for *the* notion of social construction, because the label can be, and has been, used in different ways" (Diaz-Leon, 2015, p. 1137). Much like naturalism, the concept of social constructionism is also not univocal. Nonetheless, one can single out some general commitments that are shared in different social constructionist projects. Ian Hacking maintains that virtually all social constructionists are committed to the view that with regard to x, x is not determined by the nature of things; it is thus not inevitable. It need not have existed and need not be as it is. Some social constructionists go a step or two further. Besides arguing that x is bad as it is, they maintain that we would be better off if x were done away with, or at least transformed (See Hacking, 1999, p. 6; Diaz-Leon, 2015, p. 1138).

The anti-naturalistic stance is deeply ingrained in social constructionism, so much so that in the case of pain research a thorough-going social constructionism proves to be incompatible with naturalism. When human and social sciences turn to the analysis of pain, they suspend the assumption that pain is primarily a neurological phenomenon. The social and human sciences resist the de-personalizing tendency in the science of pain, which robs one's pain experience of all personal characteristics while describing it exclusively at the level of neurological mechanisms. Social and human sciences also resist the contrary tendency of over-emphasizing the individuality and

uniqueness of one's pain experience. As Arthur W. Frank once put it, the sociologist's core conviction is that "people's sense of their own originality is highly overrated (Frank, 1995, p. xiii). "First, people's experiences are intensely personal; claims to the uniqueness of experience are true and deserve to be honored. Second, people's ability to have experience depends on shared cultural resources that provide words, meanings, and the boundaries that segment the flow of time into episodes" (Frank, 1995, pp. xiii–xiv). The interest of an anthropologist, sociologist or a historian is first and foremost directed at these shared cultural resources conceived as the socio-historical conditions that largely determine our actual pain experience. According to the working hypothesis that underlies socio-historical investigations, pain is a cultural and socio-historical phenomenon. This working hypothesis leads pain research in human and social sciences to subscribe to the fundamental principles of social constructionism.

According to social constructionism, the phenomena we usually conceive as exclusively natural are in truth shaped culturally and socio-historically. In the case of pain research, a social constructionist is committed to the view that pain can be experienced, expressed and understood in a large variety of ways and each of these ways is largely shaped by historical and socio-cultural influences. Accordingly, the mental state we identify as pain cannot be clarified in line with the principles of naturalism. While conceiving of pain as a psychological experience, a social constructionist contends that it is determined culturally and socio-historically. Far from being a physiological sensation, pain is lived in highly diverse ways when it is experienced, expressed and understood in concrete socio-historical settings.

While discussing different types of naturalism in pain research, we drew a distinction between its moderate and extreme forms. Analogously, one can draw a distinction between moderate and extreme forms of social constructionism in pain research. The difference in question relies upon what exactly one takes to be a socially constructed reality and how broadly one defines the limits of social constructionism. The moderate approach suggests that our conceptions of pain, expressions of pain, and reactions to pain are largely shaped socio-historically. By contrast, the extreme approach further maintains that our actual experience of pain is also transfigured by the influx of meanings that are historical and socio-cultural.[7]

According to social constructionists, pain is neither a physiological sensation, nor a private experience. Rather, the person suffering from pain derives a set of attitudes and values from others, and these

7 The distinction I here draw largely overlaps with Hacking's distinction between the social construction of ideas (concepts, theories, and, more generally, any kind of mental representations) and the social construction of objects (individuals, properties, facts and, more generally, entities in the world, as opposed to our representations of them (see Hacking, 1999).

attitudes and values largely shape pain experience. A moderate social constructionist maintains that we learn from others the concept of pain and the ways in which we express and respond to pain. To this the supporter of extreme social constructionism adds that we take over from others the very manner in which we live our pains – the way in which pains strike us unexpectedly and affect us subsequently, the way they compel us to think about them and respond to them.

Besides arguing that pain is neither a physiological sensation, nor a private experience, the social constructionists further maintain that pain is not a pre-linguistic experience. Besides being soaked in social meanings, the experience of pain is also largely shaped by the powers of expression, both linguistic and non-linguistic. The language one uses to speak about pain, reflect on pain, or moan in pain does not only reflect one's experience, but also shapes one's actual experience. Furthermore, the very fact that the language used is taken over from others is indicative of the fact that besides being neurologically embodied, pain is also culturally and socio-historically embedded. According to social constructionists, if one lived in different cultural and socio-historical settings, one would describe, understand, express and even experience pain differently.

Thus, to claim that pain is a socio-cultural phenomenon is to maintain that pain is embedded in historical and socio-cultural meanings: our attitudes to pain, conceptions of pain, reactions to pain and even experience of pain is soaked in the attitudes, behavior and values we derive from socio-cultural surroundings. On this basis, we can draw further analogies between naturalism and social constructionism in pain research. First, while naturalism is a form of physicalistic reductionism, social constructionism is also a type of reductionism, although of an essentially different type: social constructionism is the methodological basis of *culturalism* – the view that individual lives are determined by their own cultures in that cultures form the ultimate resources of meaning which the individuals then take over in their personal lives. Second, insofar as both methodological approaches refuse to address appearances on the level of phenomenality, they both are types of hermeneutics of suspicion, although of fundamentally different kinds. While naturalism clarifies experiences as a causal configuration of physical matter, culturalism explains them as psychological epiphenomena that are shaped historically and socio-culturally.

The Absence of Definitions

What is the operative definition of pain that underlies pain research undertaken in human and social sciences? Clearly, it cannot be the IASP definition discussed above, since it was designed to accommodate the recent discoveries and developments in the science of pain. A viable alternative is nowhere to be found. As John Encandela once

put it, "clear definitions of pain, influenced by sociological thought, need to be formulated and refined.... What is missing from current definitions of pain are elements explaining that pain is as much a social construction, as it is a result of biochemistry and psychological states" (Encandela, 1993, p. 784). To this day "a model is needed that builds in physical, psychological and social factors, which interact and define the pain experience for individuals" (Encandela, 1993, p. 786).

What is especially missing is a conception of pain that would incorporate the natural, cultural, and historical dimensions, which all play a role in the actual experience of pain. Yet is such a definition of pain even possible? On the one hand, if one holds the view that pain is a natural phenomenon, one needs to stay clear of everything historical and socio-cultural in one's attempts to clarify pain experience. Insofar as the causes that give rise to the experience of pain are natural, they are independent of socio-cultural dimensions of human existence. On the other hand, insofar as pain is a socio-cultural phenomenon, the human being's experience of pain largely depends on non-natural conditions, and thus this experience largely varies among cultures, times, and individuals. As Ernst Jünger proclaims: "tell me your relation to pain, and I will tell you who you are!" (Jünger, 2008, p. 1)

How can one and the same phenomenon have natural and socio-cultural determinations? Should one not say that if pain is a natural phenomenon, it cannot be socio-cultural, and conversely, if pain is socio-cultural, it cannot be natural? After all, the methodological distinctions drawn between natural sciences on the one hand, and social and human sciences on the other hand, rest on the tacit assumption that reason itself cannot follow the same rules in these different spheres of research. And yet—and this is a crucial point—*these methodological distinctions between different types of reason are object-based*. That is, the methodological distinctions between different sciences are built on the tacit assumption that different objects are to be analyzed by following different methods. Supposedly, while some objects (such as the elements that compose physical nature) are natural, others (such a human artifacts or social roles) are cultural. Yet in the present case, we face one and the same object: pain. Yet if it is pain itself that one wishes to determine as both a natural and a historico-cultural phenomenon, then clearly, to do this, one cannot presuppose an object-based distinction between different types of reason.

One might suggest that the problem we face here is not as significant as it might seem, for arguably, numerous phenomena can be treated as both natural and socio-historical themes. Even numbers and geometrical forms are not the exclusive property of mathematicians, even the most profound expressions of theoretical reason can become themes treated in social and historical sciences. And yet, in the case of a social or historical analysis of mathematics, there is no pretense that social and human sciences provide us with a better grasp of numbers or geometrical forms themselves. These sciences rather teach us of

the different approaches and attitudes human beings have taken, and thus can take, to numbers and geometrical forms. The situation is entirely different in the case of pain. Human and social sciences do not abstract from the question regarding the nature of pain; they rather aim to determine this nature socio-culturally, while natural sciences aim to determine it physiologically.

As Roselyne Ray has put it, pain is "an evasive subject with a dual nature, at the crossroad between biology and cultural or social conventions" (Rey, 1993, p. 2). Such being the case, it becomes understandable why to this day we lack a satisfactory definition of pain, which would accommodate the different types of pain research undertaken in diverse sciences. It is hard even to imagine a definition that would satisfy both a naturalist and a social constructionist. We harbor a sense that both are right, at least in part; yet it seems that the natural and the socio-cultural determinations cannot coexist alongside each other on friendly terms.

The Phenomenological Standpoint

Phenomenology is a method for studying human experience and the different ways in which things are given in and through experience (cf. Sokolowski, 2000, p. 2). Phenomenology studies experience from the first-person point of view and strives to offer an account of the necessary structures of experience. It is of crucial importance not to lose sight of both qualifications. Phenomenology of pain should not be misconceived (as it often is) as an empirical description of concrete experiences that pain-patients live through. Rather, it is an eidetics of pain, in the sense that it strives to uncover the fundamental conditions that experience must fulfill if it is to be called "pain." These necessary structures concern the *temporal*, *embodied* and *phenomenal* nature of pain experience.

Phenomenology is not opposed either to natural-scientific explanations, or to socio-cultural analyses. It is, however, opposed to the absolutizing tendency that qualifies both types of research. As seen from the phenomenological standpoint, both the naturalistic and the social constructionist methods have their limits: both rest on tacit presuppositions, and the task of phenomenology is precisely that of clarifying these presuppositions. Phenomenology strives to achieve this goal by focusing on the nature of pain experience *as experienced*. According to the phenomenological approach, before it is anything else, pain is an experience and therefore, before we reduce pain to natural mechanisms or socio-cultural influences, we must understand it as experience.[8]

8 Herein, in fact, lies the significance of phenomenology for pain research, for as

A phenomenological approach is highly fitting philosophy of pain, and it is so for six fundamental reasons. The first reason I have already mentioned: the fact that phenomenology is a study of lived experience is of great importance for pain research because pain, at its core, is an experience, still before we reconceive it as an effect that follows from specific causes – be they neurological, psychological, or socio-cultural. Second, the fact that the phenomenological method is primarily descriptive is also of great importance for pain research: to this day, the phenomenal nature of pain remains unexplored and it can be surveyed only descriptively. Third, phenomenology is celebrated for overcoming the subject/object dichotomy and for disclosing the centrality of the body in thinking, acting, and feeling. In this regard, too, it proves to be remarkably apt for pain research, since pain in its essence is a bodily phenomenon. Fourth, phenomenology is also renowned for having provided some of the richest – if not the richest – analyses of the temporal nature of experience. In this regard, also, it promises to be of great significance for pain research in that it provides the means needed to clarify the temporal structures of pain experience. Fifth, the groundbreaking distinction in phenomenology between the naturalistic and the personalistic attitudes is of fundamental importance when it comes to our understanding of pain: pain as experience can only be grasped from a personalistic, and not from a naturalistic, standpoint. Finally, phenomenology of the life-world is also highly relevant for philosophy of pain: it provides a philosophical clarification of pain's rootedness in the cultural worlds.[9]

As we have seen, naturalism and social constructionism explain phenomena by reducing them either to the neurological, or to the socio-cultural levels. By contrast, phenomenology does not clarify experience by reducing it to what is non- and pre-experiential. It does not explain pain experience away, by suggesting from the start that the essence of pain is fundamentally different from how it manifests itself in actual experience. While naturalism and social constructionism are forms of the hermeneutics of suspicion, phenomenology is a form of a hermeneutics of sympathy: it describes experience (in this case, pain experience) at the level of its phenomenality and on the basis of such a description, it strives to clarify the essential structures that envelop its diverse manifestations.

Varela et al. observe, "within our Western tradition, phenomenology was and still is the philosophy of human experience, the only extant edifice of thought that addresses these issues head-on" (Varela et al. 1993, pp. 19–20). If this is right, and if pain is indeed an experience, then one has to concede that phenomenology provides us with the most suitable philosophical approach to study its nature and significance.

9 In the present context, it would take me too far afield to clarify how, from a phenomenological point of view, one could account for the rootedness of pain in the life-world. See in this regard Geniusas 2020, and especially Chapter VII, "Pain and the Life-World: Somatization and Psychologization" (pp. 164–187).

It is quite clear why a naturalist or a social constructionist would maintain that their analyses address pain at a more fundamental level than a phenomenological inquiry. A naturalist would contend that only in virtue of particular neurological processes can I have the experiences of pain that I have, and if one shuts off the functioning of the nervous system, one also cancels out pain experience. So also, a social constructionist would assert that only in light of specific cultural, historical and social influences can I live my pain the way I live it; suffice it to cancel out these influences, and one's pain experience changes in terms of quality, meaning and significance. It thus seems that the experience of pain is what it is because it has always already met the neurological, cultural, historical, and social conditions. It further seems that if there is any need for a phenomenology of pain, it can only fulfill a task of secondary importance; and this it can do only if it relies upon the results that are generated by the naturalistic and the social constructionist studies of pain.

Yet one must admit that, in order to study pain from a naturalistic or a social constructionist standpoint, one must have reliable experiential access to pain experience. The scientist must already know what pain is before providing it with a scientific clarification. What exactly is this knowledge? What does it entail and what does it exclude? Imprecise awareness does not suffice for scientific purposes. We are in need of a careful description of the *explanandum* if we are to provide it with a persuasive *explanans*. It is here, at this level, that phenomenology can fill the void left open by the naturalistic and the social constructionist analyses: the science of pain remains blind insofar as it proceeds without a methodologically reliable description of what it tries to explain (See Marbach, 1993; Gallagher, 2012).[10]

Moreover, one must emphasize the need of criteria in accordance with which one could evaluate the efficacy of the naturalistic and the social constructionist explanations. Before it is anything else, pain is a lived experience, and it is our non-reductive understanding of pain as an experiential phenomenon that must provide the criteria in accordance with which we are to judge the success or failure of scientific explanations. One can therefore say that the experience of pain constitutes not only the *terminus ad quo* but also the *terminus ad quem* of naturalistic and social constructionist explanations. We have thus two reasons to claim that phenomenology of pain must be integrated

10 In this regard, one can say about the science of pain what Matthew Ratcliffe says about psychiatry: "It might be argued that much of the neurobiology implicated in psychiatric illness is already understood and that further understanding can proceed quite happily without an appreciation of the relevant phenomenology. After all, this is what has happened to date. Hence the phenomenology makes no contribution to the sciences. However, there is also a need to understand what it is that one is seeking to explain in neurobiological terms. Phenomenology can supply explananda for scientific explanations, by offering clear descriptions of phenomena that neuroscience then sets out to explain" (Ratcliffe, 2008, p. 123).

into the science of pain in the natural, cultural, historical and social sciences. Moreover, we thereby see that phenomenology of pain is by no means something of merely secondary importance when compared with naturalistic and social constructionist explanations.

Conclusion: Towards A Novel Conception of Pain Experience

I argued above that while the IASP definition of pain accommodates the naturalistically oriented analyses of pain, we do not have at our disposal a reliable definition which would either fix the concept of pain that is operative in the human and social sciences, or clarify how one and the same phenomenon – pain experience – could be the same subject matter in both naturalistically and socio-constructively oriented studies of pain. Insofar as pain is determined according to the principles of naturalism, it cannot be clarified with the help of social constructionist methodology; so also, insofar as one thinks of pain as an effect of cultural and socio-historical influences, one cannot grasp its essence by following naturalistic principles. It follows that a thorough-going social constructionism is incompatible with naturalism in pain research. Arguably, phenomenology of pain might offer us a way out of this conundrum. In place of a conclusion, I would like to sketch the phenomenological solution.

I have qualified naturalism in pain research as a type of physicalistic reductionism and social constructionism as a type of culturalism. Insofar as both standpoints are reductionist, they offer *modified* approaches to phenomena under investigation. Yet insofar as they modify the phenomena they investigate, both naturalism and social constructionism presuppose a more basic familiarity with phenomena under scrutiny. Let us therefore admit that both naturalism and social constructionism presuppose a more basic understanding of pain which directly relates to actual experience. Now insofar as phenomenology strives to account for phenomena in terms of how they are given in direct experience, it is crucial to ask: what, then, is pain, when conceived phenomenologically? I would suggest defining pain in the following way: pain is an *aversive sensory feeling, which can only be given in original first-hand experience, and which has four essential qualifications, namely it is temporally extended, localizable within the body, has a certain intensity, and a distinct experiential quality.*

By qualifying pain as an *aversive* feeling, I contend that at the experiential level, pain has a disagreeable quality. By emphasizing that it can only be given in first-hand experience, I further contend that pain can only be given in one's direct experience: pain individualizes. By asserting that pain is temporally extended, that it is localized within the body, that it has a certain intensity and a distinctive quality, I aim to capture the essential qualifications of pain experience, which enable

us to distinguish pain not only from non-localized experiences, such as suffering or despair, but also from other localized sensations (such as itches and tickles) that have a different quality.

It is not possible in the present context to provide this definition with the detailed clarification it calls for.[11] Here, I only wish to stress that the outlined conception provides the basis of a solution to the outlined conundrum. We found ourselves in a dilemma because it was not clear how pain could constitute a valid subject matter in human and social sciences if it is a naturalistic phenomenon; and vice versa, it was unclear how pain could be studied naturalistically if it is formed culturally and socio-historically. One could say that the problem we face here is that of self-imposed methodological blindness.[12] The natural scientist looks upon everything as nature not, however, because everything is nature, but rather because, following the naturalistic principles, he has from the start reduced the phenomena under investigation to pieces of nature. The same is to be said about social constructionism: those who follow this methodology are equally blind to their own accomplishments, for it is they themselves who have placed phenomena within the chosen methodological framework. The

11 For a detailed analysis of this definition of pain, see Geniusas 2020, especially Chapters II–V.

12 One might object that the view I defend here is too categorical, since many scholars working in the framework of either paradigms are well aware of the relativity of their respective methodologies. One has to agree with this: there are many forms that both naturalism and social constructionism can take. Thus, in a recent contribution, Maxwell J.D. Ramstead has drawn a compelling distinction between three fundamental forms of naturalism: ontological, methodological and epistemological. Moreover, he showed, and no-less compellingly, that forms of methodological and epistemological naturalism can be further classified in terms of their strong and weak varieties. Following Ramstead's lead, one could also draw similar distinctions while discussing social constructionism. On the basis of this kind of classification, one could argue that insofar as one gives up strong forms of methodological naturalism or social constructionism, one cannot help but must concede the relativity of one's own methodological approach. Would such a concession, which is characteristic of many contemporary approaches, not cure one from the methodological blindness of which I here speak?
Yet what exactly is weak methodological naturalism? Ramstead, for instance, qualifies it as "the position that if X is a natural entity or property, then the most adequate method for its study is one coherent or continuous with those of the natural sciences" (Ramstead, 2014, p. 932). Analogously, a weak form of social constructionism would be the position that if X is a sociohistorical entity or property, then the most adequate method for its study would have to be coherent and continuous with those of social constructionism. The methodological blindness of which I here speak concerns the requirement that any position worthy of attention must be either coherent or continuous with one's own respective methodological principles. I qualify such a weak commitment as a type of methodological blindness since it blocks off (and in this sense, remains blind to) those alternative methodological approaches, which either require one to limit the reach and significance of one's own methodological orientation or which require one to modify one's methodological orientation.

phenomenological approach invites one to assert that pain is neither a naturalistic, nor a socio-cultural phenomenon. Rather, pain is a lived experience, and only by *modifying* this experience, that is, only by reducing it to what it is not-transforming it into a theme that fits an established methodological framework – can we render it an appropriate scientific theme, which can then be studied either naturalistically, or in accordance with the established principles of social constructionism. A modification of this kind is essential to scientific practice which always proceeds on the basis of testing a chosen set of working hypotheses. It is here, however, that we face a serious danger, and it is here that phenomenology has an important function to perform. One could qualify this function as *mnemonic*, for both naturalism and social constructionism face the danger of becoming dogmatic as soon as they forget that their working hypotheses are nothing more than these words suggest them to be – working *hypotheses*, whose validity sooner or later needs to be tested in light of actual experience.

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