





# Reconsidering the International Association for the Study of Pain definition of pain

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#### **Abstract**

Introduction: The definition of pain promulgated by the International Association for the Study of Pain (IASP) is widely accepted as a pragmatic characterisation of that human experience. Although the Notes that accompany it characterise pain as "always subjective," the IASP definition itself fails to sufficiently integrate phenomenological aspects of pain.

Methods: This essay reviews the historical development of the IASP definition, and the commentaries and suggested modifications to it over almost 40 years. Common factors of pain experience identified in phenomenological studies are described, together with theoretical insights from philosophy and biology.

Results: A fuller understanding of the pain experience and of the clinical care of those experiencing pain is achievable through greater attention to the phenomenology of pain, the social "intersubjective space" in which pain occurs, and the limitations of language.

Conclusion: Based on these results, a revised definition of pain is offered: Pain is a mutually recognizable somatic experience that reflects a person's apprehension of threat to their bodily or existential integrity.

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### 1. Introduction

What does it mean, to be "in pain"? Is it analogous to being "in love" or "in debt"? Especially, as was pointed out in a cartoon in The Advertiser in 1927 (Anxious Mother: "You don't look well, Johnny. Are you in pain?" Johnny: "No, mummy. The pain's in me." The Advertiser, 1927; quoted in The Lancet, 30 June 2012), any "pain" is actually within, rather than without, the individual.<sup>5</sup>

Although the common experience of pain after acute tissue injury—"pain associated with acute nociception"—is probably

universal among sentient creatures, problems emerge when that same terminology is applied to instances in which tissue damage is not directly discernible, and the term is used metaphorically; for example, "I feel as if there is a knife in my back" or, "my heart is broken."

When the International Association for the Study of Pain (IASP) was formed in 1975, it was faced with the challenge of establishing definitions that needed simultaneously to accommodate the significant advances in the scientific basis of nociception and pain and to be pragmatic for people experiencing pain and their clinicians.

In this article, we explore again the question of whether pain can be defined, examine the background to the formulation of the IASP definition, and consider the various criticisms raised and modifications suggested. Then, taking into account novel perspectives, we propose a new definition of pain that closely tracks that of the IASP but which, in contrast, is based on common factors within the pain experience as derived from psychophysical and phenomenological studies.

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# 2. Can pain be defined?

In the preface to his book Pain, Lewis, 22 a prominent researcher of pain mechanisms, admitted that he was unable to satisfactorily define pain, and that any attempt to do so "could serve no useful purpose."

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The British neurologist Holmes<sup>18</sup> was another authority who could not see the value of a definition: "In fact, a definition that would at the same time be adequately inclusive and sufficiently restricted is scarcely possible" (p. 18).

Indeed, any attempt to define pain is daunting due to 2 interdependent challenges that transcend different cultures. One is the conceptual challenge of making sense of the mystery of the experience of pain; the other is the linguistic challenge of how to express that process accurately, when constrained by natural language to approach it only indirectly.

In proposing a new theoretical framework for Pain Medicine, Quintner et al. 44 drew upon the philosophical concept of *aporia*. From the Greek meaning "lacking a path, a passage, or a way," an aporia is a puzzle or an apparently insoluble impasse, encompassing the dual problems of not knowing how one has arrived at a destination and not knowing where to go next. Pain may be seen as such an aporia, a space to which it is difficult to gain access but from which one cannot escape. However, *aporia* is also used in rhetoric as a means of expressing doubt, a concept which is relevant to this framework (Oxford English Dictionary).

Underpinning this difficulty in understanding and explaining the experience of pain is the limitation of language. On the one hand, the person experiencing pain has no direct language in which either to express that experience to others or to explain it to themselves and thus must resort to simile and metaphor, usually creatively. On the other hand, clinicians tend to use the language of biomedicine that implies "a predictable and linear relationship between identifiable tissue damage and the report of pain." At

Although both clinician and patient follow different paths and have differing agendas, including various beliefs and expectations, they arrive at the same destination, which is the clinical encounter. The person experiencing pain presents for investigation and treatment with the quite reasonable expectation that the clinician will be able to explain their experience using currently available medical scientific knowledge. However, when the clinician does not know how to proceed, the result for both parties can be a crisis of choice, action, and identity.

When confronted with their clinician's dilemma, the person experiencing pain is forced to share the very same set of doubt and uncertainty, thereby compounding their own discomfort. This has potentially negative implications for the therapeutic relationship<sup>9</sup> including physical and emotional harm, whereas within the health care system and society at large, there is the very real risk of the person being stigmatised, a narrative in which their experience is declared invalid, imagined, or immoral.<sup>34</sup>

# 3. Defining pain

### 3.1. Current International Association for the Study of Pain definition

In 1979, the IASP approved a definition of pain that not only coupled the sensory and emotional dimensions of the experience, but also recognised the association between tissue injury and pain:

"An unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage." <sup>19</sup>

This definition, which attempted to provide a universal characterisation of the human experience of pain, was intended for use by clinicians, although this was not made clear until 1986. However, from its inception, it heralded a growing recognition that pain is a subject worthy of study in its own right. It has been described as

concise, flexible, and accurate, and therefore clinically workable, <sup>32</sup> and has gained wide acceptance as being authoritative, <sup>20</sup> including being adopted by the World Health Organisation (http://www.health24.com/Medical/Pain-Management/About-pain/Definition-of-pain-2012072).

The Note on Usage appended to the definition claims that "each individual learns the application of the word through experiences related to injury in early life." Therefore, the word "pain" does not simply denote a raw experience and the way it is connoted, but also the way in which it is used. Each individual learns when it is correct to think and speak of oneself as "I am in pain," and learning to communicate what is happening involves understanding sentences about pain. Furthermore, that statement conveys to another person in the same language group that "I am in pain" is a mutually recognised experience.

# 3.2. Antecedents to the International Association for the Study of Pain definition

Given the centrality of the current IASP definition of pain to clinical practice and to the scientific and ethnological literature, it is relevant to examine its origins.

Sternbach<sup>49</sup> proposed that "pain" denotes "(1) a personal, private sensation of hurt, (2) a harmful stimulus which signals current or impending tissue damage, and (3) a pattern of responses which operate to protect the organism from harm." This proposal conflated a stimulus ("harmful"), a sensation ("hurt"), and a teleological function ("to protect the organism").

Mountcastle<sup>33</sup> proposed that pain was "that sensory experience evoked by stimuli that injure or threaten to destroy tissue, defined introspectively by every man as that which hurts." This definition was essentially circular—"pain is that which hurts"—and tied the experience to an alarming stimulus ("threaten to destroy").

Merskey<sup>30</sup> also linked pain to tissue damage but, in contrast to Sternbach and Mountcastle, he posited that the link between pain and actual or potential tissue damage could either be demonstrable or identifiable by association as: "An unpleasant experience which we primarily associate with tissue damage or describe in terms of such damage, or both." Merskey was the first modern pain theorist to conceptualise pain as an experience. His definition emphasised, "the relationship of pain with the experience of damage to the body and, without making any assumption as to causes, it provides a framework whereby the statements of patients who describe bodily experiences like burning, aching, stabbing, etc., can be assessed, investigated and compared."

# 4. Criticisms of the International Association for the Study of Pain definition

# 4.1. "Unpleasant" is an unsatisfactory descriptor

Many commentators, from Melzack and Wall<sup>29</sup> to Olivier<sup>36</sup> and Williams and Craig,<sup>53</sup> consider that the descriptor "unpleasant" tends to trivialise the experience of pain.

The value of using diverse descriptors for the qualities of pain experience is recognised in the McGill Pain Questionnaire (MPQ). <sup>27,28</sup> The 3 major classes of pain descriptors contained in MPQ more closely align to the vocabulary used by contemporary Anglophone pain sufferers than does "unpleasant" alone. <sup>25</sup>

The MPQ is based on the appreciation that pain is not a simple "pure" sensation, varying only in its intensity (magnitude), but that it also attracts both evaluative (eg, "sharp," "pounding," "burning," "aching," "stabbing," and "boring") and affective (eg, "frightful," "sickening," "cruel," "agonizing," and "torturing")

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descriptions. The experience could be described also in terms of other dimensions, such as spatial and temporal characteristics, and on the variability in labels chosen to describe it. <sup>16</sup> This variability is partly interpersonal: self-report of pain provided in clinical assessment integrates current pain experience together with the perception as to how one should behave at the time in relation to others, especially clinicians.

The complexity of responses to the MPQ provides critical insight into the link between a patient's report of pain and suffering due to pain. <sup>16</sup> It is clear that the descriptor "unpleasant" neither captures the full range of words that could be used to describe the experience nor conveys the level of suffering for some people.

### 4.2. Perpetuation of outdated thinking

The IASP definition asserts firstly that pain is not the same phenomenon as nociception and secondly that it comprises both sensory and emotional dimensions. However, this apparent emancipation from body/mind dualism is significantly qualified in the accompanying Note on Usage, "Many people report pain in the absence of tissue damage or any likely pathophysiological cause; usually this happens for psychological reasons." This risks perpetuating the erroneous belief that pain is either "real," implying that it exists "in the body," or "imagined," implying that it exists "in the mind." That the clinically untenable concept of "psychogenic pain" is still extant reflects this enshrinement of a folk belief within the body of a defining document.

# 4.3. No necessary association between an experience of pain and tissue damage

Wright<sup>56</sup> commented on the attempt by the IASP definition to provide objective grounding for the experience by associating it with "tissue damage." However, the notes accompanying the definition assert that pain is not necessarily tied to a stimulus ("pain may be experienced in the apparent absence of a stimulus and there may be activity in nociceptors in the absence of pain"). This statement raises the possibility of misinterpretation by clinicians who might confuse "association" with causation.<sup>56</sup>

The IASP's approach to the definition ("described in terms of such damage") would not only establish the pain of acute nociception as the reference standard for all other instances of "pain" but also would imply that those other instances should ultimately be reducible to "tissue damage." A similar problem is the use of questionnaires in which the descriptor words chosen by the patient are said to be "diagnostic" of "neuropathic" pain.

Arguably, the link with tissue damage implies that a stimulus is necessary, despite the rider in the Note on Usage to the definition—"pain may be experienced in the apparent absence of a stimulus and there may be activity in nociceptors in the absence of pain"—and does not readily allow pain to be experienced in the absence of evidence of nociception.<sup>31</sup>

### 4.4. Pain as a singular experience?

Smith et al. (2011) suggest that the IASP definition could imply that the experience of pain is singular; that is, it ascribes a common phenomenology (unpleasant sensory and emotional experience) to all instances of pain. Clearly that is not the case, as Melzack<sup>26</sup> observed, "pain" represents "a category of experiences, signifying a multitude of different unique events having different causes, and characterised by different qualities along a number of sensory and affective dimensions" (p. 46).

Price and Barrell<sup>43</sup> proposed that the phenomenology of pain is based on 3 factors (rather than Melzack's category of experiences) that are common to experiences thereof: (1) its unique sensory qualities; (2) a meaning of intrusion or threat; and (3) related feelings of unpleasantness or other negative emotions. This formulation implies that all 3 dimensions need to be clinically identified before the label "pain" can be applied to the experience, which is more reminiscent of diagnostic criteria for a syndrome or a disease than a definition.

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# 4.5. Omission of important dimensions of the pain experience

Williams and Craig<sup>53</sup> noted that the IASP definition does not include cognitive and social dimensions of the experience, which they considered to be "essential qualities necessary to promote good science and optimum health care." However, an exposition of the dimensions of an experience leading to beneficial care delivery or particular outcomes is not required in its *definition*. Morris<sup>32</sup> anticipated this criticism by affirming that the IASP definition "neither supports nor promotes social injustice."

### 4.6. Self-report privileged

Anand and Craig<sup>1</sup> complained that the definition depends on self-report, thus potentially disenfranchising nonverbal groups such as neonates, infants, and small children, people with intellectual disabilities, degenerative brain disease, linguistic disorders, and all nonhuman animals. Williams and Craig<sup>53</sup> also considered that verbal reports were being accorded a higher priority than nonverbal behaviours.

In defence of the IASP definition, Aydede<sup>2</sup> suggested that in the clinical context, verbal reports are not necessary for detecting if a person is experiencing pain and suggested that nonverbal behaviours such as facial expressions would probably suffice. Such behaviours have an important role in mediating pain assessment in social contexts.

Observers prefer nonverbal to verbal behavior when interpreting or judging the credibility of a person experiencing pain. <sup>38</sup> Nevertheless, the question raised by Anand and Craig<sup>1</sup> where that person is unable to communicate with the observer has still not been resolved.

### 4.7. Definition entrenches observer-dependency

Price<sup>41</sup> remarked on the postulated association between a sensation, an experience of unpleasantness, and actual or potential tissue damage. He raised the important question as to whether the basis for making such an association is dependent on the "judgment of an outside observer or the experience of the person in pain."

An observer can never know with certainty whether the other person is correct in making such an association. On the other hand, through culturally and linguistically determined learning, the sentient person experiencing pain will likely associate the unpleasant sensation with either tissue damage or the apprehension thereof.

This "association" highlights the problem of observer dependency and the tension between "privilege" accorded to self-report and observer interpretation. Price's<sup>41</sup> criticism is therefore valid only when there is discordance between the judgment made by the observer and that of the person experiencing pain.

Scarry<sup>47</sup> wrote: "To have pain is to have certainty; to hear about pain is to have doubt." The possibility of doubt underlines the problem of discordance between the judgement of the observer

and the pain experience of the other person, which raises the clinical issue of the validation of pain, especially where careful examination and extensive investigations have failed to reveal a source of nociception. <sup>45</sup> The question thus arises, how can an observer know if a person is experiencing pain?

In the ordinary sense of the word "know", observers can and commonly do know that another person is experiencing pain. It is misleading to maintain that such knowledge can be only indirect: the person experiencing pain does not doubt their "knowledge" of it, whereas for observers there is no more direct way of knowing than by observing the other's language and behaviour. In such cases, observers do not rely on inference that another is experiencing pain. As Wittgenstein<sup>55</sup> says, "Just try—in a real case—to doubt someone else's fear or pain." Wittgenstein argues that we can say that "He is in pain," not because we have proof of the presence of pain, but simply because in the process of being a fellow human being we cannot doubt the reality of the other's experience.<sup>37</sup>

Smith et al. <sup>48</sup> claimed that the IASP definition does not exclude "factitious pain" and "malingering," which are said to be "significant" clinical problems. These situations do not necessarily exemplify that observer judgements of pain in others are necessarily mistaken but rather that they are fallible. <sup>3</sup> This fallibility of observer judgements of the human experience of pain reflects its complexity, unpredictability, and cultural relativity.

# 5. Proposals to modify the International Association for the Study of Pain definition

In summary, criticisms of the IASP definition include the explicit association of pain with tissue damage, perpetuation of dualistic body—mind thinking and unresolved tension between the primacy of self-report and the privileging of the perspective of the observer.

Aiming to distinguish pain from other unpleasant bodily experiences (eg, nausea and fear), Fabrega and Tyma<sup>11</sup> minimised its sensory-discriminative dimensions in favour of boosting its affective-motivational properties and then relying on the judgment of the individual as to whether the particular perception is recognised as pain. In their formulation: *Pain is an unpleasant perception which the individual explicitly refers to his body and which can represent a form of suffering.* But this definition would not distinguish between the pain of a person with myocardial ischaemia and that of a person with a "broken heart."

Olivier<sup>36</sup> argued that, phenomenologically, pain is a mode of bodily perception. Pursuing this argument, he stresses that the experience of pain disturbs the ways in which we relate to our environment: *Pain is disturbed bodily perception bound to hurt, affliction, or agony*. However, this definition is ambiguous because it could imply that someone watching another person being tortured may experience pain directly as a result of the observation. Furthermore, the terms "hurt," "affliction," and "agony" require definition, whereas in this context it needs to be clarified whether "bound to" means "tied to" or "destined to."

Wright<sup>56</sup> grounded the experience of pain in terms of its (presumed) evolutionary role. By defining pain as a type of unpleasant experience, he not only avoids linking that experience to activation of nociceptors but also postulates a teleological function for the experience: Pain is the (sic) unpleasant sensation that has evolved to motivate behaviour, which avoids or minimises tissue damage, or promotes recovery.

Along similar lines, Smith et al. 48 advanced a definition of what they called "canonical" ("normal, prototypical") pain as an unpleasant experience on the part of a human subject that is both sensory and emotional and is of a type that is either canonical pain or phenomenologically indistinguishable from

canonical pain. According to these authors, "canonical pain" occurs in response to, and is concordant with, tissue damage and is, in evolutionary terms, the most basic case of pain from which all other pains were to be seen as variant phenomena. It is unclear what is to count as "the most basic case of pain," and what "is concordant with tissue damage" means. Furthermore, it is unclear how pain that is "phenomenologically indistinguishable from canonical pain" is not in fact "canonical pain."

Aydede<sup>2</sup> reworded the definition to emphasise the relationship between the typical phenomenology of pain and its *canonical* causes: *An unpleasant sensory and emotional experience that* results from actual or impending tissue damage, or is correctly describable in terms of such damage. Apart from enshrining tissue damage, this definition leaves unaddressed the normative question of who determines the "correctness" of a person's description of pain, and how this is assessed.

Williams and Craig<sup>53</sup> substituted "distressing" for "unpleasant" and added "cognitive and social components" to the IASP definition: *Pain is a distressing experience associated with actual or potential tissue damage with sensory, emotional, cognitive and social components*. Adding components to the definition in this way does not clarify the relationship between the stimulus ("tissue damage") and the experience.

However, these modified definitions are open to some of the same criticisms as faced by the IASP definition. The definition of Smith et al. <sup>48</sup> seems to exclude cases of chronic pain unrelated to pathology that are typically observed in specialist pain clinics. Olivier<sup>36</sup> and Wright's<sup>56</sup> definitions do not acknowledge the multiple sensory, cognitive, and emotional dimensions common to pain experience, or the common meaning of pain as immediate intrusion or, attack on the body.

The introduction of technical terms from outside clinical medicine such as "canonical pain" in the definition of Smith et al.,  $^{48}$  or terms used not commonly associated with pain, such as "affliction," as in Wright's  $^{56}$  definition may prove harder to understand for clinicians than others who more closely track the IASP definition. By being overly inclusive, the definitions of Williams and Craig  $^{53}$  and the formulation of Price and Barrell  $^{43}$  sacrifice the parsimony that typifies the IASP definition.

# 6. Other concepts of pain that might inform its definition

The question arises whether other concepts of pain might have been overlooked in the process of definition. Pain has been conceptualised in many differing ways by philosophers, poets, experimental physiologists, as well as by physicians (reviewed by Zimmermann<sup>57</sup>). In this section, we identify common concepts and dimensions of pain, and the interrelationships among them.

### 6.1. Pain as a symptom with portent

Throughout its history, Western medicine has appreciated the value of pain as a symptom of an underlying injury and disturbed bodily function. <sup>35</sup> The word "symptom" is derived from the Greek expression *sumtoma*, meaning an occurrence or happening; but *sumtoma* has as its stem the word *sympiptein* (to befall), which carries with it an implied prediction or portent as to what might befall that person. So, pain-as-a-symptom carries an implication of a threatening reality.

But, chronic pain may occur in the absence of a discernible disease process, thus deflecting pain from being a symptom to being the harbinger of a daunting and at times a terrifying future, for both clinician and patient.<sup>46</sup>

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### 6.2. Pain as a corporal experience

From ancient times, pain has been construed as a form of punishment visited on humankind by supernatural forces (eg, evil spirits) invading the person's body, as a test of the person's faith that a divine being will protect them from bodily injury. Another view saw pain as the result of an imbalance of the vital fluids.<sup>23</sup> In each example, pain is expressed through the body.

In modern times, psychophysical and phenomenological studies have confirmed the core meaning of pain as a sense of personal intrusion or attack *on the body* that is sometimes accompanied by immediate and extended negative feelings of anxiety, fear, annoyance, and depression.<sup>40,42</sup>

### 6.3. Pain as a source of meaning

Degenaar<sup>10</sup> saw human beings experiencing pain as "more than patients that require treatment," but rather as "persons who are threatened in their existence and are crying for help." He viewed therapy as caring for them "in terms of the destination of human life."

#### 6.4. Intersubjectivity

Our personal experiences are not simply private events but are connected with other experiences to which publicly shared concepts can be applied. Through culturally and linguistically determined learning, a person learns when it is correct to think and speak of oneself as "in pain," and understanding what this experience entails. <sup>55</sup>

The mere mention of pain immediately raises certain possibilities: "What has caused the pain? Where do you feel the pain? How long did it last? Is it sharp, burning, or stinging? Are you all right?" Thus, the experience of pain is articulated in a web of shared concepts through which others can respond to what is happening to a person. This is not to deny objective aspects of pain (as in the burgeoning knowledge base of neuroscience) nor of course its inherent subjectivity.

Philosopher Martin Buber (1878–1965) described 2 different approaches through which people can choose to relate to their environment: *I-It* or *I-Thou*. <sup>6</sup> People can observe the sun or trees, but they do not ask these objects to describe or to account for what they think or feel (*I-It*). People ask this question only of one object in the environment, namely that which people address as "you." "How are you?" is a form of words that establishes a relationship that can exist only between those who refer to themselves as I (ie, *I-Thou*). Thus, echoing Buber's I-Thou approach, it is by addressing each other as "you" that we secure ourselves in the weave of intersubjective relations, and it is due to our place in the weave that we are persons. <sup>17</sup>

British psychoanalyst Donald Winnicott drew attention to the "importance both in theory and practice of a third area, that of play, which expands into creative living and into the whole cultural life of man" (Ref. 54 [p.102]). He referred to this intermediate area as a "potential" space, in which the phenomena of culture and creativity will occur. As he observed during the imaginative play of children, this intermediate area is one in which players agree to mutually construct a relevant culture for a particular purpose. <sup>12</sup>

When the players are the person experiencing pain and the clinician, they are simultaneously "...both observer and observed, locked inextricably in a dance that defines the impossibility of objectivity." Following Winnicott, the virtual space where such an encounter—the "dance"—might take place has been termed the intersubjective (or "third") space. 44,45

This is a legitimate (socially sanctioned) and safe communal space in which both parties can accept and negotiate the meanings of the experience, including the testing of boundaries, thereby creating a therapeutic relationship. Through creative expression, differences of point of view can be resolved and new possibilities are allowed to emerge. Thus, the clinician–patient relationship becomes a truly intersubjective one, when Buber's I-Thou dichotomy can be transcended as "We."

### 6.5 Threat to existential integrity

As discussed above, the experience of pain is commonly expressed in terms of threat to bodily integrity. "Integrity" means the state of being whole, which when applied to living beings is closely related to "autonomy" meaning existence as an independent organism and not as a mere form or state of development of an organism (Macquarie Australian Dictionary, 7th ed. 2017). In a much broader context then, the concept of "threat to bodily integrity" can be extended to a threat to a person's very existence, that is, a threat to their existential integrity. <sup>10</sup> This raises the important question of the necessary conditions for the survival of living beings as integral, autonomous systems.

American physiologist Cannon<sup>8</sup> postulated the existence of a self-regulatory adaptive mechanism that allowed organisms to maintain themselves in a state of dynamic balance in the face of changing conditions. For this mechanism, he coined the term homeostasis.

Chilean biologists Maturana and Varela<sup>24</sup> took this concept further by arguing that the unique property possessed by living organisms is a particular circular mechanism of spontaneous autonomous activity contained within a semipermeable boundary, a process which they called autopoiesis, from the Greek, meaning self-producing. They defined an "autopoietic unit" as a homeostatic system capable of being self-sustaining by virtue of an inner network of reactions (namely, its organization) that regenerate all the system's components (namely, its structure). These components are ceaselessly regenerated and the system always contains the very network that produces them.

The critical variable of a living system then is its self-organization, which determines both the identity and general configuration (structure) of the system. Its structure changes constantly as the system continually adapts itself to perturbations (unpredictable disturbances) in its environment. Loss of the system's organization results in its death. Vernon et al. <sup>52</sup> refer to these processes as ensuring "constitutive" autonomy, with the focus being on the internal organisation that maintains living systems as identifiable autonomous entities.

By contrast, Tabor et al.<sup>50</sup> focus on the extent to which the person's behaviour reflects strategies to ensure survival in the context of perceived threat. Vernon et al.<sup>52</sup> refer to this external process as maintaining or ensuring "behavioural autonomy."

If preservation of autonomy is the critical variable of a living system, <sup>52</sup> then pain is a threat to that autonomy and thus to the existential integrity of a living system.

### 7. Toward a new definition

To recapitulate the IASP definition of pain: "An unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage."

The major advances of this definition included its conceptualisation as an "experience," explicitly sensory and emotional, asserting that pain is not a "thing" such as a disease, and the linking of the experience with tissue damage. This latter generated a new vocabulary, based on the Latin root "noci-" meaning "harm," synonymous with "damage."

The major problems with this definition of pain appear to be:

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- (1) that although pain is "always subjective," objectivity is also required, thus privileging the stance of the observer over that of the experiencer.
- (2) the compulsory linking of pain with "tissue damage" which, although denied, again focuses attention on a problem of/in the body, as distinct from a problem with the body.
- (3) implied equivocation about its veracity as a form of distress when there is no obvious nociception.

The challenges of redefinition then are to embrace pain as a shared phenomenon, privileging neither observer nor observed, to acknowledge that it is an experience involving the body without necessarily "blaming" the body, and to move from "damage" to threat.

Therefore, we propose: Pain is a mutually recognisable somatic experience that reflects a person's apprehension of threat to their bodily or existential integrity.

The above discussion emphasises how difficult it is to grasp an aporia. However, "pain" is clearly an experience only of a sentient being, one that can be recognised by others in the same species. So, we have characterised it as "mutually recognisable" to capture both the aporia and inherent intersubjectivity of pain, which are integral to a phenomenologically sound definition. Recognising mutuality in the proposed definition removes the element of doubt and the at times vexed and polarising issues of subjectivity and objectivity when a clinician is attempting to evaluate a patient's experience. The term acknowledges the important point made in the Notes attached to the IASP definition: "each individual learns the application of the word through experiences related to injury in early life."

This helps to resolve the clinician's dilemma, enabling a clinical encounter that ensures a mutual exploration of the patient's beliefs, expectations, emotions, and perceived meanings of pain. <sup>51</sup> This negotiated position stands to relieve the tension between the competing "privileges" of self-report and observer interpretation.

The dissatisfaction with "unpleasant" as a defining adjective for this experience is not resolved by adding reference to other dimensions. Indeed, the need for an encompassing adjective probably became redundant after the development of the MPQ. By contrast, we would argue that a qualifier is not needed if the experience is mutually recognisable and we question how does one in any case qualify an aporia?

We have explicitly substituted "somatic" for "sensory and emotional," to locate the experience of pain in the body. People experience pain "in and of the body," not "in the brain" or "in the mind."

It has been suggested that "embodied" is a more appropriate conceptualisation of the relationship between the body and the experience of pain. <sup>50</sup> However, that term has been defined in different ways: (1) as a concrete expression of some idea or quality (Webster's New World College Dictionary, 4th ed. 2010); (2) as a position in cognitive science emphasising the role that the body plays in shaping the mind<sup>21</sup>; (3) the subject's own view of his or her body as it has to be lived with subjectively"<sup>39</sup>; or (4) as emphasising "the pivotal role played by the lived body in the constitution of the way we understand the world of others."<sup>14</sup>

Embodiment has also been connoted to mean that the structure and function of the body determines "parts of our conceptual system and therefore some aspects of our language" (Ref. 15 [p. 36]). As we understand it, this connotation from cognitive linguistics postulates that because the brain is part of the body, then those brain-dependent functions such as perception and reasoning are *ipso facto* "embodied." By this connotation, pain is self-evidently "embodied" but that does not indicate where the person locates the experience, which in our view is unequivocally in the *soma* (to include both parietal and visceral components). In view of its multiple meanings, in our opinion, "embodiment" does not belong in a definition of pain.

Pain is not the only "mutually recognisable" experience or the only "mutually recognisable *somatic* experience" of sentient beings. But, as has been argued, linking it to "tissue damage" is problematic. Removal of "tissue damage" from the definition overcomes the ambiguity present in the phrase "actual or potential tissue damage" and may enfranchise those who are experiencing pain but in whom there is no identifiable tissue damage. Furthermore, it follows that, arising out of inferences based on previous experience, the person "in pain" has already distinguished that from other distressing mutually recognizable states such as hunger, dyspnoea, or anxiety.

Nonetheless, any definition of this experience must acknowledge its intrinsic meaning, especially as culturally and linguistically determined. It seems clear that the experience of pain is threatening, but what is the nature of that threat? We suggest it is to the person's perceived ability to maintain their existential integrity, as we have characterised it.

To convey this, the term "apprehension"—meaning anticipation of adversity, dread, or fear—is offered to capture the underlying concept of "expressed in terms of actual or potential tissue damage," which can accommodate other meanings that might be attributed by the person to their experience of pain.

#### 7.1. Limitations of the proposed definition

The proposed definition does not include what have been argued are the unique sensory qualities of pain that are like those that occur during tissue damaging stimulation, or the negative feelings of anxiety, fear, annoyance, and depression that commonly accompany pain. These common factors have been reliably observed in phenomenological and psychophysical research since the early 20th century. 43,51

Not everyone who experiences pain will wish to share that experience with others, including health professionals, or agree that their bodily and/or existential integrity are threatened. But, not everyone who experiences pain presents as a patient seeking assistance from those in the health professions. It is to the clinical situation that the proposed definition is intended to apply.

### 8. Conclusion

We have argued that the IASP definition of pain, which is now in its maturity, has ultimately not been conducive to a fuller understanding of the nature of this human experience. We propose that pain be redefined as a mutually recognizable somatic experience that reflects a person's apprehension of threat to their bodily or existential integrity. This definition integrates the subjectivity or "first-person" level of experience of pain, and the challenge for the "second-person" of clinical evaluation (if not also intervention) towards objective "third-person" goals. This redefinition of pain is compatible with the IASP definition but more philosophically sound, biologically relevant, clinically applicable, and meaningful for people experiencing pain and for health care professionals who engage with them.

#### **Disclosures**

The authors have no conflict of interest to declare.

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