

## Letter to Editor

We welcome further discussion of our proposal to update the definition of pain<sup>5</sup> and thank Dr. Jonas Tesarz for providing a conceptual framework that yields definitions with a “clear, unambiguous statement of necessary and sufficient attributes of the term to be defined”<sup>3</sup>. If we are aiming for a definition of pain that distinguishes it from other sensory and emotional experiences and events, then this systematic approach to definition is certainly an effective procedure.

Dr. Tesarz reasonably characterizes both the IASP definition<sup>2</sup> and our proposed definition as reductive in attempting to capture the essence of pain. We commend application of this logic and use it in the following: Perception of “sensory” features is basic to the experience, although those who characterize pain solely as a sensory experience omit key features, with these captured in the use of other descriptors. Its fundamentally noxious nature is acknowledged in inclusion of the term “emotional”. Omission of the powerful roles of expectancy, memory, attention, appraisal, decision making, language and related concepts would be rectified by including the term “cognitive”. The term “social” is indispensable if we are to recognize the vast literature demonstrating the role of the social environment in determining the nature of pain experience and its expression. Thus, the logic-based approach to developing a definition of pain endorsed by Dr. Tesarz seems to lead to the same conclusion we arrived at earlier. In explicating features of pain, he had only to add items 2.3) *P is cognitive*, and 2.4) *Pain is social* to be inclusive of necessary attributes.

The important role of cognition and of social features of pain experience seems well-illustrated by the questions Dr. Tesarz asks. For example, he wonders whether interpretation of somatosensory processes as nociceptive activity might account for the inconsistent association between nociceptive stimuli and the subjective experience of pain. “Interpretation” could be explored using the cognitive constructs mentioned above. He dismisses the role of social factors by asking “what about hermits in pain”? to which there is no simple answer. Hermits might be asocial or antisocial, but they carry a residue of socialization with them and the decision to withdraw from social contact will impact upon how a hermit experiences pain and whether resources would be available to address any needs for care. Elsewhere<sup>4</sup>, Dr. Tesarz has asserted that “pain tolerance is strongly modulated by psychological and psychosocial factors” (p.1256). The proposed definition recognizes the importance of these factors as integral to the experience, and we would certainly not assign cognitive or social aspects only to ‘consequences’ of pain, as Dr Tesarz does, given the complexity of pain.

A major error in Dr. Tesarz letter needs to be corrected. The quotation of the IASP definition of pain is incorrect. The inaccurate quote describes pain as “an unpleasant sensory and emotional experience of actual or potential tissue damage or an experience expressed in such terms”. This definition does not appear in the paper cited as its source. Nor does the cited paper provide a definition — it refers to the IASP 1974 definition, which reads, “an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage”<sup>2</sup>. A key difference is omission of the terms “associated with”, an expression which leaves room for the extensive range of determinants implicated in biopsychosocial perspectives on pain. The narrow definition provided by Dr Tesarz conflicts with Merskey’s conviction that “trying to link mechanisms with the phenomenon in a definition is a mistake”<sup>1</sup> (p.26).

In summary, there appears to be substantial support for our proposal to update the definition of pain, but arriving at the best version needs the involvement of all those involved with pain, particularly with pain in nonhuman animals, and the involvement of people with pain and those close to them.

## References

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- [2] Merskey H, Albe-Fessard D, Bonica JJ, Carmon A, Dubner R, Kerr FWL, et al. Pain terms: a list with definitions and notes on usage. Recommended by the IASP subcommittee on taxonomy. *PAIN* 1979;6:249-252.
- [3] Tesarz J, Eich W. Letter: A conceptual framework for "Updating the definition of pain". *PAIN* 2017;158:1177-8.
- [4] Tesarz J. Pain perception in athletes compared to normally active controls: A systematic review with meta-analysis. *PAIN* 2012; 153: 1253-1262.
- [5] Williams ACdeC, Craig KD. Updating the definition of pain. *PAIN* 2016;157:2420-3.