

FORUM

# Kant's "mere delusions of misery". Replies to Arnaudo, Bortolotti & Belvederi Murri, Kind and Noordhof on imaginary pain\*

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IN THIS FORUM, Elisa Arnaudo, Lisa Bortolotti & Martino Belvederi Murri, Amy Kind and Paul Noordhof introduce new challenges and offer corrections, ideas, qualifications and necessary connectives for my previous article. Each responder found something to agree with about its motivation, and/or conclusions, directing their valuable, detailed commentary to the reasoning on the basis of which those conclusions were drawn. To guide readers, I begin this rejoinder with a brief summary of my discussion and the areas within it which received sustained attention from my commentators (here noted in italics).

## 1 Summary

My own work on imagined pain was prompted by Kant's attribution of delusional status to the melancholic's misery based on analogy with the mistaken beliefs of the hypochondriac. To challenge that analogy, it seemed helpful to consider whether experiences of pain and suffering could be either hallucinatory, or even entirely imaginary. Dissatisfied with the findings of Reuter and colleagues about hallucinated pain, I pursued the second, refining different ways of imagining and developing an impossibility thesis (pain feelings are impossible to imagine) employing the contrast between imagining pain and re-experiencing as painful flashbacks. Accounts of imagining were tested to explain and support the impossibility thesis (Brann's, those centered on raw feels, and Dellantonio and Pastore's on experience of inner perception).<sup>1</sup> *Commentators (particularly Kind and Noordhof) have required me to reconsider each aspect of this progression, including my dismissal of the empirical*

*work on pain hallucinations; the details of the impossibility thesis; the basic contrast between imagining pain and pain flashbacks, and each explanation I introduced of the impossibility thesis.*

Complicating this discussion was the contrast between the "emotional" pain intended by Kant, and pain associated with tissue damage. My presumption that these two kinds of pain feelings were, if not indistinguishable, then closer than is usually recognized, was (I hoped) confirmed phenomenologically, using the flying knife and terrible news examples. *Commentaries disagreed over the phenomenology (Kind) and drew attention to ambiguities in my position, either skirting, or setting aside the alignment between "emotional" and tissue-damage pain.* Also complicating the discussion was my failure to endorse representational accounts of experience, instead allowing for the possibility of a simpler, internal ostension model of experience and of imagining. *By contrast, commentators adopted the presuppositions of some form of representationalism (Bortolotti & Belvederi Murri, Noordhof).*

In continuing pursuit of Kant's idea that painful feelings may be imaginary and so reflect "mere delusions of misery", pain feelings were then considered using standard criteria for delusional beliefs. Criteria involving epistemic rationality were inapplicable here because they begged the question at issue, it was pointed out, and also because of the status of painful feelings as affections; although applicable, criteria involving procedural rationality were unhelpful because feelings of depressive pain were generally not incompatible with coherence-based norms.

Imagination-focused, meta-cognitive criteria introduced by Currie and colleagues were

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apparently applicable to our cases of emotional pain but depended on the miserable person imagining herself feeling pain – imaginings precluded as long as the impossibility thesis holds. *The discussion here was addressed by Bortolotti & Belvederi Murri, who sketched an account of delusions which affirmed my conclusions about affective delusions without sharing my presuppositions, and redirected the discussion away from imagining.*

## 2 Arnaudo

Arnaudo is sympathetic to the underlying motivation for my discussion, recognizing my reason to question the analogy Kant seems to draw between the melancholic's felt distress and the hypochondriac's imagined and imaginary disorder. Her approach takes the form of a thorough and persuasive account of the bias and dualistic assumptions underlying more than a century of medical and scientific analysis of those pains that cannot be readily ascribed to verifiable tissue damage. I greatly appreciate this way of providing historical background for what was bothering me, and illustrating why these matters are of importance that lies beyond their solely theoretical interest – why, as she says, the analysis of experiences of pain and suffering presents a task of considerable urgency.

With revisions to three definitive accounts of pain during the present decade – the DSM-V (2013), the updated definition of pain from the IASP (2020), and ICD-11 (2020) – we have witnessed significant conceptual shifts. These were driven by acknowledgement of how little is yet understood about pain, especially pain without identifiable organic cause. They stressed the subject's particular authority in describing pain experience (in the IASP and DSM5 definitions), and acknowledged (in ICD-11) the necessity of adopting a more phenomenological approach to these forms of suffering. Especially in light of the earlier definitions and attitudes from the second half of the twentieth century that Arnaudo documents, these recent revisions must be recognized as a welcome advance. Yet, as Arnaudo stresses, they still leave a tension between pain as experience and pain as objectively characterized. If the patient's reported pain fails to match the organic evidence, epistemic challenges arise – he might lie, it is supposed, or be mistaken, exaggerate or misapprehend. Pain's subjectivity is fundamentally at odds with the consistency, verifiability and replicability definitive of scientific method. These challenges are on display in the troubling history of the concept of "psychogenic" pain, it is illustrated. And revisions of that and related terms in DSM5 hardly help matters, beset as they are by vagueness that as well as being conceptually unsatisfactory seems likely

to thwart effective diagnostic practices.

Much of Arnaudo's interest, in this and her other valuable empirical and theoretical work, is directed towards chronic pain (in such conditions as fibromyalgia), which she rightly identifies as the long-neglected and disparaged stepchild of pain science and classification. As her detailed survey makes clear, in the absence of identifiable lesions, chronic pain was all too often and for far too long, dismissed as psychogenic – and akin to depression. The sufferer was ushered towards psychiatry, where her condition went by "Hysteria" among other names, and ran the risk of being dismissed, or under-treated, as imagined and imaginary.

As it is consistently portrayed, both in research and in first person report, the pain of chronic pain conditions is experienced phenomenally, or sensorially. Its symptoms may also include more emotional, affective states such as the depressive feelings with which it is closely associated. But primarily, it is depicted as a sensory state. Like Arnaudo, other commentators for the most part abjure the emotional pain of depression, whose status as sensorial remains uncertain, focusing instead on the clearly sensory pain associated with tissue damage that has been the subject of most philosophical research.

I recognize the uncertainty attaching to analogies between tissue damage pain and the pain of extreme depression, and grant the insufficiency of my account's reliance on links between the two. I am still reluctant to give up using "pain" to describe the suffering associated with severe depression. Pain from tissue damage has long been privileged in being considered paradigmatic of pain. But no definition of pain in terms of necessary and sufficient conditions can be achieved, it is also agreed. In light of that, it seems to me that accurate and non-figurative uses of "pain" may depend on a range of variously distributed and only partially overlapping features, some number of which are sufficient, but none necessary, for that description. If the resemblances between different kinds of painful suffering were sufficiently overlapping – as they clearly are among typical tissue-damage pain tokens – "pain" may even admit of several paradigms. Certainly the trend in pain science, exemplified in the 2020 diagnostic definition from ICD-11 (quoted by Arnaudo), confirms the inextricable ties between sensory and affective elements in pain. And although it has been persuasively argued that so-called "social pain" fails to achieve the status of "pain" literally understood, other forms of emotional pain might yet be found to do so.<sup>2</sup>

I am in much agreement with Arnaudo and have little to add, except to point out that, already linked as they are with depression, chronic pain conditions and their vagaries seem to confirm the

looser use of “pain” permitted in my discussion, which spans the suffering of the depressive and the pain from unidentifiable as well as identifiable tissue damage. As confirmation of this, I draw attention to the introduction of the concept of “nociceptive pain” that enters the ICD-11 definition of Chronic Widespread Pain. Characterized as pain that «(1) arises from altered nociception *despite* (2) *no* clear evidence of actual or threatened tissue damage causing the activation of peripheral nociceptors *or* (3) evidence for disease or lesion of the somatosensory system causing the pain», nociceptive pain sounds as emotional as it is sensorial (IASP Taxonomy 2017 – emphases added).

### 3 Kind

Kind helpfully separates loose from stricter senses of imagining pain, and challenges the impossibility thesis with cases of inaccurate and incomplete imagining. Similarly, she grants mixed states that might still be judged as imaginings even though they are at the same time re-experiencings. The general phenomenological picture of imagining is expanded and illuminated by these complexities, undoubtedly, as they are by Kind’s intriguing idea that imagining is an exercise that can be improved with practice. Nonetheless, I am left unsure whether these refinements provide entirely satisfying counter-examples against the impossibility thesis, at least as revised in light of other commentators’ refinements. That we can imagine pain, though not accurately or fully, seems undeniable, as does the fact that such variations and lacunae similarly accompany visual imagining. Still, I am not sure about Kind’s conclusion that even if we grant that our imagining cannot be wholly and perfectly accurate «[...] this would not mean that imagining pain can never be done in the strict sense». My lingering concerns involve the characterization of that strict sense and the analogy with visual imagining (about which I say more below).

Kind separates a loose and rough approximation (of a painful sensation) and asks whether I might at least accept that loosely speaking, people can imagine pain. My answer: we can, of course, imagine much about the context in which the pain experience is situated (and imagine even our own pain from an observer’s perspective). And certainly, as the contrast between loose and strict imagining suggests, imagining of any kind can be expected to vary according to the specificity and detail of what is imagined. My aim in restricting my claim (to the impossibility of imagining P) was to exclude some of the looser and less precise ways of imagining by emphasizing that it is the *hurt or painfulness itself* – seemingly a single, simple apprehension, phenomenologically – that is

unimaginable, when we engage in such an attempted exercise. Trying to imagine this way is, in Kind’s own words, trying to *somehow bring ourselves to be in a state with the same qualitative feel as P1*.

To develop her position that we can do better and worse at imagining, Kind contrasts realistic and fantastical imaginings, where realistic imaginings «aim at accurate representation of their target». I take this distinction to match that employed by others, whose “recreative” would be Kind’s “fantastical” imagining. Still, I confess myself puzzled when this distinction is applied to imagining pain. Is it fantastical or realistic to try to imagine a pain-inducing context (such as the flying knife) complete with the painfulness itself? Also, because even non-fantastical imagining is not remembering but imagining, I wonder whether anything is lost if instead of introducing an accuracy standard, we say some imagining includes counterfactual elements, as Kind’s example of the study apparently illustrates.

Moving in parallel ways to Kind, but grounded in representationalism, Noordhof shows that we will need to restrict the impossibility thesis to active and perhaps recreative imagining, and I return to that discussion below. But let me approach these proposed revisions by way of the dilemmic form Kind sees in my argument and sets herself to dismantle. *Either we somehow bring ourselves to be in a state with the same qualitative feel as P1 or we don’t. If we do, then we’re re-experiencing, not imagining; if we don’t, then we’re not imagining.* Kind challenges the exclusive dichotomy between imagining and re-experiencing here, speculating that re-experiencing may not be a case of merely imagining, but rather a hybrid case of “imagining plus experiencing”. In response to Kind’s conclusion, it must first be acknowledged that phenomenologically, re-experiencings (flashbacks, for example), likely include interwoven elements, some imaginative and others more memory-like. And this would be reason to restrict the impossibility thesis to counter-factual recreative imagining. But at least so restricted, the thesis seems to me to remain undefeated.

Kind’s warning not to confuse “can’t imagine” with “won’t imagine” is interesting, not only because it evokes Gendler’s work but more immediately. It seems to anticipate the disposition to respond adversely, de-activated when one attempts to imagine pain in the requisite way, by which Noordhof proposes explaining the impossibility thesis. Kind’s phenomenologically-grounded account presupposes a degree of conscious awareness and control, while Noordhof’s work need not, since it is focused, as he puts it, on the conditions for representing pain. Yet each rests on the idea of a natural aversive response to felt pain.

#### 4 Noordhof

Noordhof rightly restricts the impossibility thesis to active imaginings, and I appreciate this clarification. His reasoning here explores pain hallucinations, empirical findings about which I had set aside in favor of a more directly phenomenological approach. We do not doubt that phantom limb pain hurts; if we were to grant that phantom limb pains are hallucinated pains, then we must allow it can be possible to imagine pain in the requisite way, he reminds us. Phantom limb pain, although some form of misapprehension, is not responsive to the will. So here is a second qualification to the impossibility thesis: it will be active imagining.

After making clear that his revised version of the impossibility thesis applies only to sensuous imagining rather than to the more emotional pain associated with depression, Noordhof offers an alternative explanation of it to replace mine. A postulated *disposition to respond adversely* allows him to explain the impossibility thesis by appeal to basic intentional acts that inhibit or curb that response. (An intentionally basic action lacks (further) purpose: i.e., it is defined as one of doing A without it being the case that there is something distinct from A that one aims to do in virtue of which one does A). There can be non-basic actions that are imaginings, but the claim remains that (from the first-person perspective) it will be impossible to imagine pain as an intentionally basic act of imagination. This revision is introduced in the face of some potential challenges to the impossibility thesis from experimental findings, and conjectures over "sub-intentional imaginings" by Jacob & de Vignemont,<sup>3</sup> against which it does seem sufficient.

Despite these persuasive ways of shoring up the impossibility thesis, Noordhof also introduces a counter-example designed to address my claim that our suffering as a consequence of imagining pain never reduces to imagining our suffering (in the requisite respects). A person imagines the terrible pain he would have felt when viewing a dying loved-one through hospital isolation restrictions, *were he not at the time numbed beyond feeling*. Certainly, this cannot be explained as remembering or re-experiencing, I agree with Noordhof. Yet it is possible, he insists, and is legitimately described as imagining the pain.

I am puzzled by certain details. If the same imagining were entirely conjectural: imagining one's suffering as it would have been had one been placed in the position of so many others during Covid even though one never was so placed, why is this less persuasive? If one were numbed at  $t_1$  in Noordhof's case, only to try to imagine retrospectively at  $t_2$ , what part is played by the ghostly blocked feeling at  $t_1$ ? This is not the first

time we've felt pain, and the exact feeling related to that sad context is *not felt* at  $t_1$ . Without further explanation of what makes this a rare counterexample for the impossibility thesis, Noordhof seems to invite a flood of challenges affecting all hypothetical recreative imaginings of one's own pain that jeopardizes his own as well as my version of the thesis.

While his counterexample may be in some doubt, however, or I may have misunderstood his intent with it, I gratefully accept several of the qualifications that strengthen the impossibility thesis. In the third part of his paper, Noordhof reflects on ways a flawed imagination might accompany the sufferings of depression, whether or not any version of the impossibility thesis holds up. His examples remind us of medieval and early modern accounts of mental suffering, where disorders such as Melancholy were widely attributed to dysfunctional, diseased, excessive or insufficient imagination. In an effort to track the dysfunction that might ensue from imaginings around felt pain Noordhof sketches pains non-basically imagined that foster anxieties, negative attitudes and other depressive symptoms. Some of these may also come unbidden, he points out (sounding very like Burton in the *Anatomy of Melancholy*).<sup>4</sup> They require an effort to dispel them that is missing in the akratic melancholic's miserable frame of mind. Such unbidden imaginings will lack the element of control that allows the extinguishing of the aversive element, as well. I am grateful for each of these valuable examples of the way flaws affecting the imagination might dog the melancholic. In being likely made worse by failures of agency, as Noordhof recognizes, they are consistent with a great deal of literature about depressive phenomenology and its effects.

Although basic acts of imagining pain are impossible, Noordhof speculates that there might be a kind of extended delusional belief about one's pain resulting not from directly imagining it, but from imagining for the purpose of apprehending some further imaginative content. The illustrative case involves visual imagining, where imagining the house enables us to indirectly (non-basically) imagine the number of its windows. That it is possible to visually imagine in this indirect way I do not doubt. But the analogy with visual imagining may be problematic. Visual imagining is complex (perhaps, as Brann proposes, due to its triadic structure). In comparison, sensory imagining comprises a limited range of phenomenal properties. We might better avoid the complexities of visual imagination by seeking an example of the purposeful direct imagining of something else out of which imagined pain inadvertently reveals itself.

This proves not without difficulty, when it involves tissue damage pain. Imagining any kind

of injury or bodily damage so immediately and forcefully evokes the pain it would cause that the expected pain seems ineluctably tied to the imagining – not an unintended consequence – and this gets us back to the flying knife. An example can perhaps be adapted from Kind's discussion. Suppose, she says, we imagine P1 not by visualizing oneself with a grimace and clenched fists (from the outside) but rather by imagining the qualitative feel of the grimace and clenched fist. This could invoke the feel of the pain itself, Kind and Noordhof would each agree. And if it does, then it supports Noordhof's distinction between the basic and non-basic imagining that requires him to further restrict the impossibility thesis. (Noordhof's separation between basic and non-basic imagining is readily applied to the case of depressive suffering, it should be noted. My reflection on a holiday my friend and I were to take had her illness not prevented it, will likely lead me to the painful recognition that my friend has since become entirely bedridden).

The relationship between pain and other sense modalities is postulated by Noordhof at the outset. One plausible condition, he says, is that all sense modalities have similar phenomenal character constituted by the phenomenal properties of their respective states or events. Based on that, comparisons with visual experience and imagining are employed: when (i) it is stated that imagined pain must hurt but need not hurt as much as felt pain, just as imagined green need not be as vivid as (veridically) seeing green; (ii) direct and indirect imagining is illustrated using the example of imagining the sight of the house directly in order to learn the number of windows (indirectly) and (iii) being able to visually imagine an object's being phenomenally red is said to be compatible with not being in a state of visually experiencing an object that is phenomenally red.

I find neither of the first two of these entirely compelling comparisons, and am not sure that I fully understand the third. With (i), we can disengage the degree of vividness of green from the sight of it, whether actual or imagined; yet for me, at least, it is not possible to separate its qualitative aspects such as its intensity from the pain (actual or imagined) in the same way. Because its qualities are thus inexorably tied to its painfulness, this seems to me to illustrate the distinctive aspect of visual experience that Brann attributes to its triadic nature. I explained my somewhat similar difficulty with (ii) above. Parts of pain don't seem able to be disambiguated phenomenologically the way parts of a visual field, real or imagined, are. Far from ignoring the dissimilarities between sensuous imagining and perceptual imagining, Noordhof has in earlier work emphasized them.<sup>5</sup> Other difficulties, addressing which would be beyond the scope of the present

discussion, nonetheless seem to him to leave a representationalist approach preferable to others, including what he describes as the Dependency Thesis (imagining involves imagining an experience) not ruled out in my discussion.

## ■ 5 Noordhof vs. Kind

Slippage can occur between "*I can't*" and "*It [imagining pain], can't be done*," Kind warns. And with his collection of corrections, elaborations and presuppositions in place, Noordhof accepts that the impossibility (*it can't be done*) applies across the normal population. Some with mental disorder may have to be exempted from that generalization. Arguably, for example, people who suffer flashbacks following trauma constitute a group whose defect resides in their disposition to respond adversely. Due to the trauma, that disposition has been disabled, at least temporarily. Some recent theorizing has proposed that the flashback sufferer began so relatively advantaged on the normal range of visualization abilities that he is prevented from achieving what others may succeed at blocking.<sup>6</sup> But this is quite compatible: flashbacks may occur in super-visualizers possessing a trauma-wrought mechanism that disables of the disposition to respond adversely.

Combined with Noordhof's analysis this account leaves re-imaginings of pain in the realm of disability. By contrast, on this generalization over what is within the normal range, Kind is doubtful, raising the possibility of (normal) individual variation in the ability to imagine painful feelings, and citing persuasive data from Ogini and colleagues to support her position.<sup>7</sup> Evidence of such a range of abilities in pain imagining, corresponding to the individual variation in imaginative capabilities across other sensory modalities, would put an end to the pain "exceptionalism" underlying my discussion. (I do not mean to suggest that this exceptionalism is necessarily absolute. Certainly Noordhof points to the case in favor of our ability to imagine smells, for example. Yet even if, as Brann and others have argued, visual, auditory (and even perhaps olfactory) ones do not, some sensory modes may possess features identified here as characteristic of pain.) It would also support the view, shared by several of these responses, and discussed above, that pain experience is strongly analogous to other forms of perception. That said, the direct evidence for the variable abilities with pain awareness is far from complete, as Kind acknowledges. And as I have suggested above, the comparative simplicity and phenomenological integrity of pain experience still seem to me to work against some of the strong analogies drawn here between experiencing pain and seeing (Noordhof ((i)-(iii) above), and Kind's imagining her transformed

workspace, and spouse's face.) From the variability observed with visualization, I am reluctant to assume that pain imagining exhibits a comparable range.

## 6 Bortolotti & Belvederi Murri

Bortolotti & Belvederi Murri explore the sensory and perceptual components of pain to provide persuasive supporting arguments towards the conclusion they and I share, while electing to set aside Kant's idea (as well as Currie and associates' metacognitive one) that the failing in delusory ideas involves the imagination. While agreeing that we should resist the idea of delusional pain, Bortolotti & Belvederi Murri question that "an object needs to be imagined to be the object of a delusion". Instead, they conclude that a characteristic epistemic irrationality carries most weight in support of the conclusion that pain experience eludes status as delusional – pains are simply not appropriate objects for epistemic evaluation.

On the relation between imaginability and being a delusion, I should begin with what I interpret to be Kant's position based on his analogy with hypochondria. Delusions are belief-like products of the faculty of the imagination and may be, as "merely imaginary," non-veridical. It was from this conception of delusion that I proceeded to consider whether unimaginability might be an indication of delusionality. In contrast, stating that "pain is fundamentally a sensory and perceptual experience," Bortolotti & Belvederi Murri direct the discussion away from the questions of imaginability and the imaginative faculty raised by Kant. Their view: «one cannot have experiences of pain that are not veridical or verified or falsified by an external observer».

These suppositional differences may leave us too divergent in basic assumptions for a direct exchange. Thus, Bortolotti & Belvederi Murri assume the impossibility of non-veridical experiences of pain. But that assumption is what lies at the heart of (my reading of) Kant's analogy between the melancholic and hypochondriac. If the melancholic is capable of errors analogous to those of the hypochondriac, then non-veridical experiences of pain remain possible. It was for that reason that my discussion dismissed appeal to some epistemic rationality norms as question-begging.

Helpfully, Bortolotti & Belvederi Murri suggest that suffering such as the melancholic's misery may result from patients mislabeling a "subjective experience which shares features with actual physical pain." This points towards some recent speculation about the misapprehensions associated with Alexithymia, where the subject is said to suffer a deficit in identifying «physical

sensations as somatic manifestations of emotions» so as to be susceptible to «incorrectly interpreting their emotional arousal as signs of disease» and so *confusing* "mental" with "physical" pain.<sup>8</sup> While this interpretation remains possible, another one suggests itself: with their reference to activation of brain areas that occur «when one experiences reactive emotions due to other causes» Bortolotti & Belvederi Murri may be seen to support a more expansive reading of "pain," even if the patient's resulting misapprehensions would not rise to the level of delusional states. Much rests on one term, "resembling," in the definition of pain by Raja and colleagues quoted with apparent approval by Bortolotti & Belvederi Murri («An unpleasant sensory and emotional experience associated with, *or resembling that [experience] associated with*, actual or potential tissue damage».<sup>9</sup> Emotional feelings may not directly resemble either bodily pain or actual or potential tissue damage, yet still they may be associated with, or resemble, feelings associated with such tissue damage. Perhaps this is an acknowledgement of the ineluctably emotional aspect of pain, noted in recent definition revisions, and may be interpreted to include states of pain more emotional than sensorial.

While rightly emphasizing that to avoid the attribution of delusional status congruence alone is not sufficient, Bortolotti & Belvederi Murri confirm the congruence that frequently unites thoughts and actions within the depressive frame of mind, noted in my discussion. As long as pain is restricted to signaling bodily damage or ideas of disease or lesions, I would agree that such a criterion is a non-starter for depression – unless, were that "resembling" of Raja and colleagues' interpreted loosely enough, the pain of depression could be captured in reference to representations of psychic or emotional deficiency, or damage to self.

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To conclude: for each of these meticulous and fruitful responses, my debts and gratitude to Elisa Arnaudo, Lisa Bortolotti, Martino Belvederi Murri, Amy Kind and Paul Noordhof are immeasurable, as they are to the editors of this journal.

## Notes

<sup>1</sup> Cf. E. BRANN, *The world of imagination: Sum and substance*; S. DELLANTONIO, L. PASTORE, *Internal perception. The role of bodily information in concepts and word mastery*.

<sup>2</sup> Cf. J. CORNS, *The social pain posit*.

<sup>3</sup> P. JACOB, F. DE VIGNEMONT, *Vicarious experiences: Perception, mirroring or imagination?*

<sup>4</sup> Cf. J. RADDEN, *Melancholic habits: Burton's anatomy and the mind's sciences*.

<sup>5</sup> Cf. P. NOORDHOF, *Imaginative content*.

<sup>6</sup> C. ZIMMER, *Many people have a vivid “mind’s eye” while others have none at all*: «anecdotally [those with hyperphantasia] are really good at moving on [...] One wonders whether that’s because they’re less troubled by the kinds of images which, for many of us, come to mind». Cf. also A. ZEMAN, M. DEWAR, S. DELLA SALA, *Lives without imagery – congenital aphantasia*; B. FAW, *Conflicting intuitions may be based on differing abilities – Evidence from mental imagining research*.

<sup>7</sup> Cf. Y. OGINI, H. NEMOTO, K. INUI, S. SAITO, R. KAKIGI, F. GOTO, *Inner experience of pain: Imagination of pain while viewing images showing painful events forms subjective pain representation in human brain*.

<sup>8</sup> Cf. M. DI TELLA, L. CASTELLI, *Alexithymia in chronic pain disorders*.

<sup>9</sup> Cf. S.N. RAJA, D.B. CARR, M. COHEN, N.B. FINNERUP, H. FLOR, S. GIBSON, F. KEEFE, J.S. MOGIL, M. RINGKAMP, K.A. SLUKA, X.-J. SONG, B. STEVENS, M.D. SULLIVAN, P.R. TUTELMAN, T. USHIDA, K. VADER, *The revised International Association for the Study of Pain definition of pain: Concepts, challenges, and compromises – emphasis added*.

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