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# *Illusions of Affection*

## *A Hyper-Illusory Account of Normative Valence*

**Abstract:** *This article challenges the orthodox position that some smells are pleasantly fragrant and some tactile sensations are painful. It proposes that the affective components of our experiences are a kind of illusion. Under this alternative picture, experiences that seem to have positive or negative affect never actually do. Rather, the affective component is hyper-illusory, a second-order misrepresentation of the way things actually seem to us. While perceptual hyper-illusions have elicited scepticism in other contexts, affective hyper-illusions can withstand common critiques. Focusing on the paradigmatic affective experience — pain — the article situates the hyper-illusory account within the existing scientific and philosophical literature. Several theoretical advantages of positing a hyper-illusory structure to affective experiences emerge from the discussion.*

*Could it be that all pains are, in some sense, figments of our imagination...? (Hardcastle, 1999, p. 13)*

### **1. Introduction**

Many everyday experiences leave us unmoved. Others seem to have a strong hedonic or affective component. Fetid odours and sharp pains seem to have an unmistakable repugnance. Sweet smells and caresses seem to be pleasant. We may call this apparent hedonic component the

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*normative valence* of the experience and describe the possible valences as *positive* or *negative*. The orthodox position is that sensory experiences often have their own positive or negative normative valence.

I argue in this article that there is good reason to doubt the orthodox view and maintain instead that the normative valence of our experiences is illusory. More specifically, I propose that the apparent normative valences are hyper-illusory — illusions in the way our experiences seem to us. This would not necessarily mean that normative valence drops out of the psychological picture altogether. Illusions exist even if their referents do not. Bodily ‘pains’ and olfactory ‘pleasures’ could still be importantly different from unvalenced sensations, but their psychological structure would be more complex than commonly supposed, consisting of first-order sensory experiences and second-order misattributions of normative valence.

In the next section, I define more carefully what hyper-illusions are and discuss why they may initially strike us as, at best, bizarre possibilities. I then lay out the hyper-illusory account of normative valence in Section 3 and suggest why such hyper-illusions are less troublesome than hyper-illusions in other contexts. Section 4 presents two case studies illustrating how the account fits within available empirical data about normative valence. Section 5 turns to the extensive philosophical literature on the paradigmatic affective experience — pain. It situates the hyper-illusory account among extant theories. Because the account only describes the structure of pain’s normative valence and does not offer a complete theory of pain, it is compatible in principle with several contemporary views on what pains are. As such, the account could be a tool available to a wide range of pain theorists. The article closes in Section 6 by describing several advantages of adopting a hyper-illusory theory of pain’s affect, noting how the account easily explains many theoretically troublesome features of pain.

## 2. What are Hyper-Illusions?

*Illusions* are situations where things seem different than they actually are. The Müller-Lyer lines, for example, seem to be different lengths when, in fact, they are the same length. A *hyper-illusion* is a situation in which the way things seem to seem is not the way that they actually seem (Block, 2007).

A bit more terminology may help. I shall distinguish orders of seeming. A *first-order seeming* is an experience of the way the world is. The contents of first-order seemings consist of ordinary experiential properties like those associated with the standard senses. In looking at a stop sign, I see it to be red; that is to say, it first-order seems to be red.

A *second-order seeming* is an introspective experience of a first-order seeming<sup>1</sup> (Lambie and Marcel, 2002). The contents of second-order seemings are also experiential. Continuing the stop sign example, to the extent that I have a second-order seeming at all, it will likely seem to me that the stop sign seems red, or, more succinctly, the stop sign will seem to seem red.

Ordinary illusions result from a discrepancy between first-order seemings and the world. In the case of the Müller-Lyer illusion, the lines first-order seem to be different lengths. Since they are in fact the same length, there is a discrepancy between the first-order seeming and the way the world is. Hyper-illusions are the result of a discrepancy between first- and second-order seemings. If a stop sign first-order seems red to me but second-order seems green, then I am experiencing a hyper-illusion.

Are there any hyper-illusions? Can a stop sign really seem red but seem to seem green? It could if there were a failure of the introspective process that generates second-order seemings. Despite compelling evidence of introspection's shortcomings, many still hesitate to doubt its accuracy (Descartes, 1637/2008; 1641/1993; Armstrong, 1963; Brentano *et al.*, 1995; Lycan, 1996; Chalmers, 2003). Even for theorists who are more sympathetic to evidence of introspective failure, hyper-illusory states may seem suspect. An analogy to belief may help explain why. Suppose I simultaneously have two beliefs: first that it is sunny out, and second that I believe it is cloudy. Such epistemic states are easy enough to describe and occasionally to diagnose in someone else (as when someone believes her partner is unfaithful but does not believe that she believes it). But they are hard to imagine first-personally (Wittgenstein, 1953). This is in part because of the transparency of beliefs, including second-order beliefs

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<sup>1</sup> I am not alone in speaking of introspection in quasi-perceptual terms (Locke, 1690/1836; Kant, 1781/1999). While a quasi-perceptual gloss on introspection makes hyper-illusions easy to describe, I could equally define hyper-illusions in terms acceptable to any theory of introspection that concedes introspection has some experiential content and is sometimes fallible.

(Evans, 1982; Byrne, 2011; Gertler, 2011). On the rare occasion that we explicitly consult our second-order beliefs ('Do I believe my partner is unfaithful?'), we typically do so in the same way we form our first-order beliefs: by directly enquiring into the way the world is ('Is my partner unfaithful?').<sup>2</sup> It is hard to imagine in any vivid, first-personal way circumstances in which the contents attributed by the second-order belief and the first-order belief's actual contents contradict each other. Doing so would require envisioning a scenario in which you would simultaneously answer the same question ('Is my partner unfaithful?') in two contradictory ways. This is the classic pragmatic paradox of self-deception: acknowledging a fact ('My partner is unfaithful') and simultaneously suppressing it ('But I believe she's faithful').

It is even more difficult to vividly imagine oneself in the grips of a hyper-illusion (Nagel, 1974). While the self-deception necessary to form false second-order beliefs may be difficult, hyper-illusions, like the stop sign that seems to seem green, may appear impossible to induce absent some abnormal neurological condition. Perceptual experiences, including introspective experiences, are widely thought to be transparent (Ryle, 1949; Byrne, 2012). Second-order experiences are not self-presenting; they are, so to speak, diaphanous to the first-order experiences they are about (Harman, 1990; Martin, 2002). The same is true of first-order experiences, which are transparent to the states of affairs they are about (Shoemaker, 1994; Siewert, 2004; 2012). At the personal level, we use the same procedure to see whether a stop sign is red and whether it seems red — we just look at the stop sign (Evans, 1982). Because of the supposed transparency at both orders, hyper-illusions like a stop sign that seems to seem green might (mistakenly) appear to entail simultaneously undergoing conflicting experiences. And that is hard to imagine first-personally.

Hyper-illusions could exist even if they are difficult to imagine from the first-person perspective. Some cognitive scientists claim to have found examples in various forms of change-blindness (Dehaene *et al.*, 2006). As Ned Block argues, these examples are unconvincing (Block, 2007). But, as I propose below, hyper-illusory experiences of

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<sup>2</sup> I will also speak of first- and second-order seemings in representationalist terms because I find it most natural. I assume in what follows only that experiences bear the representational content I attribute to them. I do not assume that the representational content exhausts the phenomenal character of experience (Block, 2003).

normative valence are different, in part because there is less reason to think that they would be as offensive to the purported transparency of introspection.

### 3. Normative Valence as Hyper-Illusory

Suppose that you have just eaten something that you would naturally describe as tasting repulsive. In the terminology introduced above, the taste seems to you to have a negative normative valence. I will assume that the negative normative valence is at least in part experiential.<sup>3</sup> According to most orthodox accounts (as discussed more extensively in Section 5), that experience is a first-order seeming. In this section, I describe an alternative possibility, consistent with available evidence, according to which the experience of normative valence is a hyper-illusory, second-order seeming.

Here is how the explanation of your experience of a repulsive taste would go on the hyper-illusory picture I am proposing. You have a first-order taste experience — the *sensory core* — characterized non-normatively in terms of a few basic dimensions of taste experience, e.g. sweet, sour, salty, and bitter (McLaughlin & Margolskee, 1994).<sup>4</sup> The first-order taste experience, on this account, has no normative valence. However, the taste does *seem* to have a negative normative valence; it seems to be repulsive. The second-order experience is as of experiencing a negatively valenced taste. Since, on this account, there is a discrepancy between the first-order seeming (no normative valence) and the second-order seeming (normatively valenced), your experience of negative normative valence — the repulsiveness of the taste — is hyper-illusory.

Hyper-illusory experiences of normative valence should raise fewer coherence objections than the sorts of hyper-illusions previously

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<sup>3</sup> One could reject this supposition if one thought that normative valences are judgments about first-order experiences to the effect, for example, that the first-order experiences are repulsive or pleasant. I will not engage this possibility beyond saying I doubt it can be right. I do not think that the negative valence of, for example, pain sensations can be explained merely in terms of negative judgments about pain sensations. It seems that pain is *felt* to be repulsive, not merely judged to be so. After all, I can judge your pain to be repulsive, but such a judgment will not affect me in the way that the repulsiveness of my pain does. The immediate urgency and motivational force of my pain seems most naturally explained, at least in part, by an experience of repulsiveness, rather than solely by a negative judgment, which I can also make of your pain.

<sup>4</sup> In the literature on pain (discussed below), some theorists refer to the sensory core as the ‘cognitive base’ (Teroni, 2019).

considered. This is because the transparencies of experience and introspection do not entail the same conflicting perceptual commitments where second-order seemings of normative valence are concerned. In the hypothetical stop-sign example, the second-order experience as of a green stop sign fails to match the first-order experience by representing it as having experiential qualities that conflict with the experiential qualities it actually has. The conflict is due to the familiar conceptual impossibility of something being, or seeming to be, both red and green at the same time.<sup>5</sup> But hyper-illusory experiences of normative valence bear a different relationship to the first-order experiences they represent. The second-order experience does not represent the first-order experience as having a phenomenal character that is incompatible with the one it actually does have. Rather, the second-order experience represents the first-order experience as having a phenomenal character along a dimension on which the first-order experience is silent, i.e. makes no representation. In the taste example, the first-order experience is not positively-, negatively-, or even neutrally-valenced. It has no normative valence at all. The content of the second-order experience supplements, but does not strictly speaking conflict with, the content of the first-order taste experience.

There is no conflict because, as Hume (1739/1896) noted, one cannot derive an 'ought' from an 'is'. The non-normative qualities of the first-order experience cannot stand in a relation of conflict, directly or implicitly, with the normative ones the second-order experience represents the first-order experience as having. So there is no conceptual impediment to a particular taste profile (which has no inherent normative valence) being attended by a positive, negative, or neutral normative valence, or no normative valence at all. This is not to say that introspection has not failed in some respect when it produces a hyper-illusion of normative valence. Hyper-illusions, after all, are still a species of illusion. But perhaps the failure is easier to swallow as a coherent possibility since the normative valence that introspection represents the first-order experience as having supplements — or, as Hume might say, 'gilds' — rather than contradicts, the character the first-order experience actually has (*ibid.*). As one theorist

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<sup>5</sup> Not all agree that this is a conceptual impossibility (Hardin, 1988). Nothing in this article hinges on the particularities of the stop-sign example, and suitable substitutes should come to mind easily for those who disagree with the conceptual claim.

put the point, '[affective] experiences do not make genuine property attributions to bodily locations — so they do not have full veridicality conditions' (Aydede, 2019b, pp. 703–4).

#### **4. The Hyper-Illusory Account is Consistent with Available Empirical Evidence**

So far, I have only shown that the hyper-illusory theory of normative valence is a theoretical possibility. I will now argue that the theory harmonizes with available empirical evidence. If the hyper-illusory account is true, we would expect to see evidence of a disconnect between first-order experiences and the second-order experiences that represent them as having a normative valence. Several studies demonstrate this possibility. In the studies I discuss below, subjects report varying normative valences despite there being good reason to think the sensory core of the experiences remains fixed. This should establish the *prima facie* plausibility of the hyper-illusory account of normative valence. A fuller defence appears in Section 6.

##### *4.1. Case study: Olfaction*

Studies in olfaction reveal that factors seemingly irrelevant to the sensory core of scent experiences can affect the accompanying normative valence. For example, past experiences can affect the apparent normative valence of odours (Schaal *et al.*, 1997). Our affective responses to scents are largely conditioned early on; babies, who have not undergone such conditioning, have little in the way of natural scent preferences (Kahn, 2001). National origin, which presumably shapes early conditioning, influences the normative valence people associate with scents in predictable ways. Accordingly, one study finds that a negative valence accompanies the scents of fermented soybeans and dried fish for Germans, but a positive valence accompanies them for Japanese, and vice versa for the scent of anise (Ayabe-Kanamura, 1998). An attractive explanation of these data is that both groups experience the same first-order sensory core, but, perhaps due to different cultural conditioning, they undergo divergent second-order representations of normative valence. On the hyper-illusory story, both groups are within the grips of a hyper-illusion, but cultural conditioning influences which hyper-illusion they experience.

The hyper-illusory account becomes more attractive still in intra-personal studies. In one experiment, subjects were asked to sniff a series of scented compounds, among them a test compound made of

isovaleric acid and cheddar-cheese scent (de Araujo *et al.*, 2005). Before presenting each scent, experimenters showed subjects cards with words written on them. Subjects then ranked the apparent pleasantness of the scent after smelling it. The words ‘Cheddar Cheese’ or ‘Body Odour’ preceded two presentations of the test odour combination. Subjects consistently ranked the test odour as seeming significantly more pleasant when presented with the ‘Cheddar Cheese’ card as opposed to the ‘Body Odour’ card. These results have been independently replicated with a different chemical compound and the words ‘Parmesan Cheese’ and ‘Vomit’ (Herz and von Clef, 2001). Since these cases involved intrapersonal comparisons, it is safe to assume that the core sensory experience of the scent remained the same across trials, though the circumstances modulated the accompanying normative valence. If the consistent first-order scent experience itself included the normative valence, such modulation would be hard to explain.

#### 4.2. Case study: Pain

Pain is the paradigmatic negatively-valenced experience. Traditionally, pain theorists assumed along with Kripke that there is never a gap between the experience of pain and actually being in pain (Kripke, 1980). A hyper-illusory account would say the exact opposite: that there is always an appearance/reality gap because the first-order bodily experiences that appear to be painful never actually are. Like seemingly normatively valenced scents, empirical data show that there is a very malleable relationship between the sensory core of pain experiences and the accompanying normative valence.

Most pain theorists think the sensory core of pain consists of tactile experiences indicative of tissue damage — pressure, cutting, scraping, heating, etc. If they are right, we have long had evidence that the sensory core of pain and its negative valence can diverge. A variety of factors that bear no relation to the sensory core of pain can modulate how negative the associated valence is: culture, past experience, perceived meaning of the situation, and feelings of control (Melzack and Wall, 1973). For example, the same injuries will seem less negatively valenced when subjects believe they are in control of the source of injury (Linden, 2015).

Hypnosis and genetic defects can widen the gap between sensory core and normative valence even further. Subjects can be conditioned through hypnosis to experience no negative valence at all when, for

example, parts of their body are exposed to freezing temperatures (Price, 2000). The subjects still experience the extreme cold but, judging from their first-person reports, no longer experience concurrent negative valence.<sup>6</sup> Individuals suffering from analgesia are born with this deficit. They usually die at a young age, having accidentally, and unknowingly, worn their bodies down through repeated injury. Paul Brand and Philip Yancey describe the case of four-year-old Tanya:

She was healthy in every respect but one: she did not feel pain. Nerves in her hands and feet transmitted messages about changes in pressure and temperature — she felt a kind of tingling when she burned herself or bit her finger — *but these carried no hint of unpleasantness*. (Brand and Yancey, 1993, pp. 3–5)

Tanya apparently experienced the sensory core of pains (tingles, temperature increases, etc.), but always divorced from any negative valence (Barber, 1959).

Some pain theorists now think the sensory core of pain is a more complex phenomenon that involves not just tactile sensation, but also a separate pain sensation, or *nociception* (Grahek, 2007). This account is not uncontroversial (Klein, 2015), but even if true, there is evidence that negative affect and core sensation (now touch plus nociception) come apart as the hyper-illusory account would predict. Patients who suffer from pain asymbolia are like those discussed above in that they do not experience negative affect when presented with painful stimuli, while they do experience the tactile sensory core. Unlike those suffering from other pain disorders, however, pain asymbolics report nociceptive experiences along with the tactile sensory core. ‘Neurological and psychological testing showed conclusively that the ability to recognize pain upon noxious stimulation [i]s fully preserved... But all consistently fail... to display any affective or motor responses to painful stimuli’ (Grahek, 2007, p. 43). Those who study pain asymbolics typically quote their patients saying things like ‘I feel it indeed; it hurts a bit, but it doesn’t bother me’ in response to noxious stimuli like pinpricks (*ibid.*, p. 45). Pain asymbolics often smile or laugh during pain testing because of ‘their inability to perceive or

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<sup>6</sup> This characterization of the experiments is accurate, even if Ernest Hilgard is correct that some ‘hidden observer’ still experiences the aversiveness of the cold (Hilgard, 1977). The observer in control of speech mechanisms reporting his experiences still feels the cold but does not experience the sensation as aversive.

experience the pain they feel as a threat, danger, or damage' (*ibid.*, p. 75).

## 5. Situating the Hyper-Illusory Account

There are many battlelines in the literature on normative valence. In particular, philosophers of pain have thoroughly carved up the theoretical terrain into increasingly finer plots. Situating the hyper-illusory account of normative valence — as applied to pain — within this existing literature will clarify the account's commitments and, as importantly, its non-commitments. Since the account is neither a complete theory of affect nor a self-standing theory of pain, it is in principle compatible with several existing views on the nature of pain.

A hyper-illusory approach to pain would simply provide a partial story of the psychological structure of pain experiences. It would say that the normative valence of pain experiences enters the picture through second-order, introspective access to first-order experiences that are not themselves normatively valenced. The normative valence of pain is therefore a type of illusion.

### 5.1. Among discussions of affect and illusion

This is not the first proposal to connect illusions and pain, though such discussions are rare because many philosophers think pain experiences must be self-intimating. Valerie Hardcastle discusses a wide range of 'pain illusions' and accounts for them as 'shortcuts in [psychological] computing... that inevitably fail us under certain conditions' (Hardcastle, 1999, p. 127). The *hyper*-illusory account offered here, however, is different from Hardcastle's illusions. She refers to situations where people experience tissue damage without also experiencing negative normative valence, or situations where people experience some negative painful normative valence without any accompanying experience of tissue damage. On a hyper-illusory account, the first sort of case would not be illusory at all because first-order experiences of tissue damage are not normatively valenced. The second sort of cases would not, as described, be 'failures'; rather, they would encompass all pain experiences, which universally lack (first-order) affect.

Louis Charland (2005), writing about emotion, has offered perhaps the closest analogue to a hyper-illusory approach to pain.<sup>7</sup> Charland's central claim is that 'valence understood as hedonicity (pleasure or displeasure) is not an intrinsic objective property of felt affect in first-order emotion experience. Rather, it is a property of second-order emotion experience that is highly variable and fundamentally indeterminate' (*ibid.*, p. 233). Though he does not speak in terms of illusion, Charland's account of emotion's 'hedonicity' seems to have a hyper-illusory psychological structure.

However, even if Charland's account were generalized to all normative affect, it would differ in material respects from the hyper-illusory account offered here. For example, Charland draws heavily on the work of Robert Solomon and Lori Stone (2002), according to whom normative emotional valence is always a matter of interpretation and the application of some scheme of meaning. The relevant second-order process seems, on Charland's view, to be cognitive and cognitively demanding. Channelling Lambie and Marcel (2002), he calls it 'a kind of reflexive knowledge' (Charland, 2005, p. 243). While it may be possible to develop the hyper-illusory account of normative valence along these lines,<sup>8</sup> as I discuss below, that is not the only option. When adapted to pain rather than emotion, Charland's commitments on this front would face some familiar problems. It may be plausible that all creatures capable of experiencing something complex like emotional hedonicity are also capable of cognitively demanding interpretive tasks like those Charland describes. The same cannot be said of pain, which is a more promiscuous experience. A Charland-inspired account would face another problem common to cognitivist accounts of pain — explaining what many take to be pain's inherently motivational nature. Knowledge and beliefs standing alone do not generally have motivational force.

Charland's picture also has an anti-scientific orientation that is not a necessary part of a hyper-illusory account. He believes his account 'threatens the scientific foundation of descriptive theories of affect' (Charland, 2005, p. 235). According to him, '[t]he fundamental nature

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<sup>7</sup> I am grateful to an anonymous reviewer for drawing my attention to Charland's book chapter.

<sup>8</sup> This, too, may be doubtful. If the second-order state that interests Charland is a kind of knowledge or belief, it is not immediately clear that it could properly be called 'illusory' (as opposed to just 'false'). Tye (1997) lays out one account of pain along these lines. It is not without its difficulties (Aydede, 2019b).

of valence must therefore remain a scientific mystery' (*ibid.*, p. 248). On his view, emotional affect poses an even deeper challenge to scientific accounts of the mind than even the hard problem of consciousness: 'The difficulties posed by the scientific explanation of affect valence appear to be of a different order. This is not simply a hard problem for the science of mind. It may constitute a genuine *inexplicable* mystery' (*ibid.*, p. 251). While there could be hyper-illusory accounts of pain that are not amenable to scientific enquiry, I mean for hyper-illusions to help *demystify* pain's normative valence. As discussed in the previous section and the next, I believe science can help.

### 5.2. Among theories of pain

A hyper-illusory approach to pain's affect is compatible with the broad strokes of many existing positions in the philosophy of pain. For example, while the hyper-illusory account of normative valence naturally lends itself to eliminativist views of pain, nothing forces it to deny that pain exists as a scientific natural kind or as the referent of a useful folk concept (Corns, 2015). From Daniel Dennett (1978) through Valerie Hardcastle (1999), eliminativists about pain have been motivated by counter-examples scientists have discovered to various purportedly core features of pain experience, like its infallibility, its essentially negative affect, and its reference to tissue damage. Hardcastle in particular warns against reductively 'identifying pain with the [negatively valenced] experience of pain' and instead advocates focusing on the bundle of mechanisms our brains have for processing diverse streams of nociceptive information (Hardcastle, 1999, p. 162). The hyper-illusory account makes no claim (conceptual or empirical) about whether pain is reducible to its familiar negative valence, is essentially negatively valenced, or is identifiable with multiple or single streams of information processing. Rather, it simply maintains that, for those pains that have a negative valence (which may or may not be all pains), negative valence is not (contrary to second-order appearances) a property of the first-order experience. A realist theory of pain could embrace the hyper-illusory account by identifying pain with features of second-order experience or with more complex combinations of first- and second-order experiences.

Since the hyper-illusory account of normative valence does not import a substantive view of pain, it is consistent in spirit with many

theories of what pains are. For example, representationalists about pain believe that the phenomenology of pains is identical to some intentional content (Cutter, 2017). Unlike most representationalists, however, a hyper-illusory version would locate the relevant intentional content in some second-order, introspective state. A hyper-illusory approach could also port over to a perceptualist account of pain. It would not work for existing perceptualist theories that view pain as a kind of first-order perception of some external condition of the body, e.g. tissue damage (Armstrong, 1962; Park, 2017), but the account could be adapted to a perceptualist view that focuses instead on inner percepts.

Mixed theories of pain see pain as a complex consisting of at least two mental elements, one perceptual and one affective.<sup>9</sup> Such multi-dimensional views dominate the scientific literature (Corns, 2018). Many mainstream mixed theories are in structure (if not always in detail) consistent with the hyper-illusory account of normative valence. Their two-part framework maps well onto the hyper-illusory picture, which divides experiences involving normative valence into a first-order sensory core and a second-order misattribution of affect. Adverbialist theories of pain, which identify pain with a specific manner of somatosensorily perceiving tissue damage, are amenable to a hyper-illusory rendition if the relevant ‘manner’ entails some sort of concurrent second-order awareness (Aydede, 2017; 2019a). Evaluative theories identify the affective component of pain with some sort of evaluation. On one prominent rendition, pains are experiences that simultaneously represent a bodily disturbance and represent it as bad (Bain, 2013; 2017b; Teroni, 2019). But with a slight modification,<sup>10</sup> a hyper-illusory account could emerge — pains would be first-order experiences that represent bodily disturbance combined with a second-order evaluative experience representing those experiences as bad. The second-order evaluations would be truth-apt, but always false (Bain, 2013).

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<sup>9</sup> Admittedly, the line between single-element and mixed theories of pain is not always clear cut. I do not mean the typology I offer here to be definitive, as nothing of substance to this article turns on it. It is for expository purposes only.

<sup>10</sup> Bain (2017b, p. 41) is emphatic that his ‘[e]valuativism is a *first-order view*’. ‘[O]n standard Evaluativist views, subjects do not have, in addition to that first-order evaluative representation, any second-order representation (evaluative or otherwise) which would take that first representation as in intentional object. In this sense, unpleasant pains are claimed to be first-order intentional experiences’ (Mitchell, 2019).

The hyper-illusory account of normative valence is not universally compatible with mixed theories of pain. Imperative theories, for example, identify the affective components of pains with mental states containing imperative contents, something like ‘Stop having that bodily disturbance’ (Martinez, 2011; Hall, 2008). Even if the imperative content inheres in a second-order mental state — ‘Stop having the bodily disturbance represented by that experience!’ — the content could not be illusory; imperatives have satisfaction conditions, but not truth conditions (Bain, 2017a). Psychofunctionalist theories also do not lend themselves easily to hyper-illusory construal. These identify the negative affect of pain with ‘a certain causal/psychofunctional role’, something like ‘being motivationally biased’ away from the source of the experience (Aydede and Fulkerson, 2015, pp. 34–5; Gray, 2018). Like commands, functions are not truth-apt; they lack representational content of the sort that the hyper-illusory account requires.

In sum, the hyper-illusory account of normative valence offers a novel view of the psychological structure of pain’s affect. It could be adopted by realists and eliminativists alike. Among realist theories, the account is compatible with any theory of pain that allows the affective component of pain to have some representational content and to be a second-order mental state. Such theories include representationalism, perceptualism, adverbialism, and evaluativism. The hyper-illusory account is likely incompatible with imperitivism and psychofunctionalism.

## 6. Assessing the Hyper-Illusory Account

It is one thing to lay out the hyper-illusory account of normative valence as a theoretical possibility, compatible with several existing theories. It is quite another to show that it is a view worth holding. There are some potential theoretical bullets that the view must bite. These, however, are paired with some significant theoretical benefits. Once again focusing on what the view brings to pain theory, I show that a hyper-illusory approach offers elegant solutions to some persistent challenges.

### 6.1. *Bullet biting*

First, the bullets. The hyper-illusory account of normative valence will strike some theorists as *prima facie* implausible because it seems contrary to the first-person phenomenology of pain as a simple, unified

experience. This is precisely the intuition that the hyper-illusory account calls into doubt. As already discussed, the developing science of pain continues to strain the credibility of this first-person phenomenology.

Still, it would be helpful if the hyper-illusory account had some explanation of why the illusion of first-order affect seems so compelling. On one promising approach, attentional binding could collapse first- and second-order experiences so that, at the personal level, ‘intentional objects of experience come to be experienced as themselves pleasant or unpleasant’ (Lambie and Marcel, 2002, p. 244). ‘Ample connections exist in the brain to integrate nociception with emotional response very easily’ (Hardcastle, 1999, p. 118). Consequently, ‘[d]istinguishing among emotional, sensory, and cognitive responses is quite difficult to do. They all run together in the brain’ (*ibid.*, p. 114). In the ordinary course (though not always), our brains attribute negative affect to painful experiences ‘automatically and mostly at the subpersonal level — what happens at the personal level is that the subject is simply struck by the positive or negative import of what is presented to her by the cognitive base’ (Teroni, 2019, p. 103).

An alternative explanation would draw on the transparency of introspective experiences, which present themselves as ‘immediate consciousness’ of the first-order experience (Strawson, 1988).<sup>11</sup> Consider a loose analogy to Humean moral projectivism. For Hume, human activity, such as torturing small animals, has no inherent moral quality. However, such activities may induce emotional responses in us, e.g. abhorrence. We then project these sentiments onto the activity itself, so that we come to see activities like cat torture as abhorrent in themselves (Hume, 1751/1907). Affective hyper-illusions may do something similar, though at a higher psychological order. On this account, first-order experiences sometimes induce in us second-order experiences that represent the first-order experiences as normatively valenced. Then, by a (likely evolutionarily hardwired) psychological sleight of hand induced by the transparency of experience, the normatively valenced phenomenology of second-order experiences is projected onto first-order experiences so that the latter seem themselves to be normatively valenced. The first-order experiences are, to use

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<sup>11</sup> It should be noted that Aydede (2019b) denies that pain experiences are transparent.

Hume's term, 'gilded', and thereby mistakenly made to seem as if they are themselves pleasant or repulsive.

Under the hyper-illusory account of normative valence, the seemingly painful affect of first-order pain experiences is illusory. For theorists who are committed to viewing pain as essentially a first-order psychological phenomenon, this would mean that pains do not really have any affect. In this respect, the hyper-illusory account would go even further than Hardcastle (1999), who forcefully argues that pain should not be identified with negative affect because there are *some* pains that lack it. That presents a *prima facie* problem for the account. As Jennifer Corns has worried: 'If it is simply denied that pains *have* affective character, one may begin to suspect that the subject has been changed' (Corns, 2018, p. 746; 2014). Any account of pain that casts doubt on pain's affect may have difficulty explaining what many take to be basic features of pains — that they both (defeasibly) motivate and (defeasibly) justify behaviour aimed at stopping it (Bain, 2013).<sup>12</sup>

The most effective response on behalf of a hyper-illusory approach would be to embrace a more complicated picture of pain as (usually) consisting of both first- and second-order psychological phenomena. Then the account need not deny that pains have affect. The affective component could be identified with a second-order introspective misrepresentation of the first-order experience as having negative normative valence. There would still be a further question of whether that second-order state could satisfy the felt, motivational, and justificatory features typically associated with pain's affect. The plausibility of an affirmative answer would turn on a more detailed account of what the second-order state is. As discussed in the previous section, an account of the second-order state could draw on a number of existing theoretical templates. It could be an inner perception of the sensory core, or a way of introspecting the sensory core, or an evaluation of the sensory core as bad. A hyper-illusory account would thereby inherit many of the familiar strengths and weaknesses of perceptual, adverbialist, or evaluativist theories. My claim is not that any of these would ultimately win the day for a hyper-illusory account. It is just that, in proposing that pains might have a hyper-illusory structure, 'the subject has [not necessarily] changed'.

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<sup>12</sup> It should be noted that there is far from universal agreement that any available theory of pain can accommodate both features.

Even for those who insist that pain is a purely first-order psychological phenomenon, there are several considerations that could soften the blow of denying that pain has affect. Psychological evidence suggests that many pain theorists have overly fetishized pain's justificatory and motivational roles, and perhaps pain's affect along with them. '[P]ain science has revealed the correlation between bodily disturbances of any sort as yet specified and pains as reported to be surprisingly weak' (Corns, 2018, p. 742). As a result, 'many, perhaps even most, pains misrepresent the objective bodily badness of the disturbance' (*ibid.*). Chronic back pain, which usually has no identifiable physiological cause, is one example (Hardcastle, 1999). Many headaches and growing pains might be others. For motivational roles, too, 'there is good evidence... that affect and motivation doubly dissociate at both the sub-personal and personal levels. If that is right, then the assumptions about the motivational profile of pains' affect which underwrite all three dominant theories of pain should be abandoned' (Corns, 2018, p. 748).

It must also be remembered that the hyper-illusory account purports to apply to all experience of normative valence, not just the affect of pain. Much of the force behind Corns' intuition that the subject would have changed if one were to deny that pains have affect is the thought that pains are archetypal examples of affective states — 'If any experiences have normative valence, then surely pains do!' The hyper-illusory account denies the antecedent. It is not just pains whose first-order normative valence the hyper-illusory account calls into question, but also the feel of gentle caresses, the sound of soothing tones, and taste of rancid morsels. Situated in this context — a total reworking of the purported psychological structure of affect — the conclusion about pains specifically may seem less outlandish.

Lastly, it bears noting that the hyper-illusory account has some reputable company in pain theory among views that reject pain's first-order phenomenological affect. Desire theories of pain are mixed theories that divide pain experiences into a perceptual sensory core and a desire that the perception cease (Armstrong, 1968). Similar to a hyper-illusory account, '[d]esire theorists take pains to be neutral sensory experiences' (Bain, 2013, p. S73). Related observations might be made of psychofunctional views, for which the functional role of pain's sensory core provides pain's affective element.

## 6.2. Possible advantages

Hyper-illusory adaptations of existing theories of pain could help transform some present philosophical challenges into expected features.<sup>13</sup> For example, a hyper-illusory approach opens the possibility of providing an account of pain's affect that unifies it with an overall theory of affect. 'We should strive for a unified (or at least not too fragmented) account of valence' (Teroni, 2019, p. 110).

A hyper-illusory approach may also help with an enduring challenge to most realist theories of pain — to explain the double dissociation between the sensory core and the negative affect of pain (Hardcastle, 1999, p. 105). 'Any theory of pain is going to have to explain why our peripheral sensors for noxious stimuli are not well connected to our sensations of pain' (*ibid.*, p. 124). This dissociation is not only a conclusion reached by pain science. Studies into the folk concept of pain also reveal that people widely agree that pain hallucinations are possible, i.e. feeling a pain as hurtful even though it is not hurtful (Sytsma and Reuter, 2017).

Far from being a surprising result, Section 3 explains how such dissociations do not call for special explanation on a hyper-illusory account. 'The [sensory-discriminative and affective-motivational subsystem neural] pathways remain largely segregated... [O]ur pain system is complex and contains at least a duality of subsystems' (Hardcastle, 1999, p. 103). The affective element of pain (such as it is) enters the picture on the hyper-illusory account only when there is a second-order awareness of the experience's sensory core. Consequently, during moments of stress (e.g. fleeing from a threat) (*ibid.*, p. 134) or under hypnotic suggestion (*ibid.*, pp. 184–8), when second-order awareness may be directed elsewhere, reflexive responses to damaging stimuli may persist even in the absence of any reported negative affect. Conversely, the affect of pain is present on a hyper-illusory account whenever the right sort of second-order psychological state attributes the right sort of negative normative valence. Since all such attribution is *misattribution*, it should be unsurprising on a hyper-illusory picture that there can be hurtful sensations even in response something that is not harmful (Sytsma and Reuter, 2017), such as

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<sup>13</sup> The discussion that follows is purposefully gestural. I merely hope to make a *prima facie* case for several advantages of a hyper-illusory approach to pain that would warrant further investigation. Fully justifying any of the purported advantages would require much more rigour and many more (unavailable) journal pages.

chronic back pain (Hardcastle, 1999) or allodynia (in which gentle caresses can trigger excruciating pain responses) (Baine, 2013). In theory, a hyper-illusory account of painful affect could even accommodate cases in which non-proprioceptive sensations (like certain visual or auditory experiences) are reported as painful (Gray, 2018) and perhaps even cases where there is pain but no specific locatable first-order experience to which it refers (Plomer, Freund and Schnitzler, 1999).

On a related note, the hyper-illusory account is well positioned to accommodate data on the cognitive penetrability of pain experiences, i.e. that top-down effects can modulate the experience of pain's negative affect. Several studies show that higher-level cognitive processes, such as judgment and memory, can influence the contents of first-order experiences (Bhalla and Proffitt, 1999; Stefanuci and Geuss, 2009; Gantman and Van Bavel, 2014). These studies are controversial, as is the precise characterization of what count as top-down as opposed to bottom-up effects (Shea, 2014). However, there is mounting evidence showing that 'beliefs [about] bodily conditions can influence the unpleasantness of the pains those conditions cause' (Bain, 2017b, p. 43). Indeed, pain scientists have shown how expectations about the normative valence of an impending sensation (e.g. of innocuous heat) can flip the reported normative valence of the experience (Leknes *et al.*, 2013). As Hardcastle (1999, p. 170) put it: 'If we believe that pain is eminent, then we are more likely to feel pain and report stimuli as painful. If we are expecting something pleasurable, we are more likely to experience pleasure.' Such cognitive penetration may seem far-fetched where our low-level perceptual mechanisms are concerned. As such, they pose a challenge to accounts of pain that locate pain in purely first-order psychological phenomena (Hardcastle, 2015). Cognitive penetration is a much easier sell for higher-level mental processes, like the sort of introspective awareness that the hyper-illusory account says is the starting point for pain's negative affect (Lambie and Marcel, 2002).

The hyper-illusory account can make short work of what seem to be conflicting intuitions and manners of speaking about pain: that pains are objects of experience and that they are experiences themselves

(Aydede, 2019a).<sup>14</sup> Most accounts of pain opt for one intuition at the expense of the other. Aydede and Fulkerson (2015, p. 28), for example, write: ‘What is pleasant or unpleasant [in pain] are experiences, not the objects of those experiences.’ Bain (2017b, p. 41), by contrast, ‘explains pains’ unpleasantness in terms of states directed at the *extramental* world, not at other mental states’. Hardcastle (1999, p. 107) notes that identifying pain with either component ‘assum[es] that pain is simpler than it is’. On a hyper-illusory approach, the affective element of pain could be both an experience (the second-order hyper-illusion) and an object of the experience (the first-order state misrepresented as having a negative normative valence). Both intuitions could be simultaneously true.

Finally, a hyper-illusory approach to pain offers an interesting way of explaining what seems to be the self-intimating nature of pain experiences. Hardcastle believes ‘[w]e need some independent reason to believe that sensory experiences or introspective reflections or whatever are, in fact, infallible’ (*ibid.*, p. 155). A hyper-illusory account can explain why ‘[t]here doesn’t seem to be any room for a possible gap between the appearance of pain and being in pain’ (Aydede, 2019a). Strictly speaking, on a hyper-illusory account, pain experiences are far from self-intimating. While first-order sensations may second-order seem to have negative normative valence, they never actually do. So, there is always a gap between the second-order order psychological appearance and the first-order psychological reality. However, being in pain, on the hyper-illusory account, is a matter of being subject to the second-order illusion that one’s first-order experience is painful. Illusions *are* self-intimating! The reality of one’s being in the grips of an illusion just is the state of it falsely appearing to one that things are a certain way.

## 7. Conclusion

In this article, I have sketched the possibility of a hyper-illusory account of normative valence. According to this theory, our first-order experiences are normatively silent while our second-order experiences of them sometimes falsely represent them as having a normative valence. Available empirical evidence is consistent with the hyper-

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<sup>14</sup> Sense-datum approaches to pain can also account for both intuitions easily, but such approaches seem (unlike hyper-illusory accounts) to be committed to controversial anti-physicalist metaphysics (Aydede, 2019a).

illusory account as are several theories of pain, the paradigmatic affective experience. Because of the several further advantages I describe, the hyper-illusory account offers a perspective on the structure of pain and other affective experiences that could be attractive to range of theorists.

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