CARTESIAN IMPERATIVISM

BY

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Abstract: We propose a novel reading of Descartes' views on the nature of pain, thirst, and hunger: *imperativism*. According to imperativism, rather than (exclusively) having intentional contents individuated by a set of correctness conditions specifying the way the world *is*, pain thirst, and hunger have contents individuated by *satisfaction conditions*, which specify the way the world *ought* to be. Unlike representationalist treatments, the imperativist reading satisfies the unique health-preserving role Descartes sets out for pain, thirst, and hunger, without inflating his austere metaphysics of *res extensa*.

It is standard nowadays to read Descartes as a *representationalist*. Representationalists claim that sensations have *indicative* intentional contents, i.e. contents that are individuated by a set of *correctness conditions*, which specify the way the world is (e.g. Simmons, 1999, 2008; De Rosa, 2007a, 2007b, 2010; Hatfield, 2013). Our aim in this article is to put a new reading on the table. We advance two claims. First, although Descartes was a representationalist for most types of sensations, a strong case can be made that when it comes to pain, thirst, and hunger, Descartes was an *imperativist*. On imperativism, pain, thirst and hunger do not (or do not exclusively) have indicative intentional contents. They instead express commands, and thus have *imperative* intentional contents, i.e. contents individuated by *satisfaction conditions*, which specify the way the world ought to be.[1] Second, we contend that Descartes was an imperativist because of the unique role these sensations play in preserving the health of the mind–body composite. Call the conjunction of these two claims – *that* Descartes was an imperativist, and *why* he was an imperativist – *Cartesian Imperativism*.

Our argument for Cartesian Imperativism has three steps. The first step (§1) focuses on demand. Although popular, representationalist readings of

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pain, thirst and hunger face a steep challenge in accounting for the biological function of such sensations without inflating Descartes' metaphysics of *res extensa*. So a new reading is in order.

The second and third steps cover the positive case for Cartesian Imperativism. The second step (§2) examines how key texts in the Sixth Meditation suggest some form of imperativism. The third and final step (§3) argues that, contra representationalist readings, Cartesian Imperativism can account for the biological function of sensations without inflating Descartes' metaphysics of *res extensa*.

Cartesian Imperativism is, unavoidably, somewhat speculative. The issue is not a paucity of direct textual evidence. There's plenty. Rather, the challenge is that direct textual evidence *alone* will never settle matters in favor of Cartesian Imperativism. But if this is a problem, it's a problem for everyone. There is no treatise exclusively dedicated to Descartes' views on the nature of sensation, so commentators are stuck with only a handful of texts spread throughout the corpus. What we do see fairly conclusive evidence for is intentionalism – the claim that all sensations have intentional content. This evidence is well known in the Sixth Meditation especially, but more generally in Descartes' discussions of *material falsity* and *objective reality* (AT VII: 232/CSM II: 163; AT VII: 44/CSM II: 30).[2] Yet none of these things – biological function, material falsity, or objective reality – settle the matter of whether such intentional content is always indicative (as on representationalism) or whether some sensations (e.g. pain) can also have imperative content (as on imperativism).[3,4] And that question is precisely what's at issue here. What tips the scale in favor of Cartesian Imperativism, we contend, is its ability to accommodate Descartes' broader commitments. In the present context, this means preserving the unique biological function of sensations without inflating Descartes' preferred metaphysics of *res extensa*. That an imperativist reading can do so is a virtue, especially when – as we'll see – extant representationalist readings cannot. So Cartesian Imperativism meets a demand, and for this reason alone deserves a hearing.

1. The challenge

Tradition has it that Descartes is a qualia realist. According to *qualia readings*, Cartesian sensations lack intentionality.[5] Qualia readings are often motivated by Descartes' mechanistic conception of *res extensa*. If Descartes cannot allow for the instantiation of colors, sounds, pains and so on within bodies, then it makes sense to push these qualities into the mind, and regard them as mere sensations *caused* by the world, but not *about* the world.

Proponents of representationalist readings argue that tradition is wrong. Such commentators are often motivated by Descartes' claim in the Sixth

Meditation that sensations have a biological function of preserving our health: 'sensory perceptions are given to me by Nature in order to signify [*significare*] to the mind what things would be beneficial or harmful to the composite of which it is a part' (AT VII: 83/CSM II: 57). Though many of these commentators concede that sensations may not represent *res extensa* in the way the intellect does, they insist that sensations must *represent* if they are to afford us any survival relevant information (see, e.g., Simmons, 1999, p. 358).

We're going to assume that qualia readings go wrong by overlooking the biological function of sensations. We are also going to assume, with representationalists, that Descartes was a thoroughgoing *intentionalist*, and that it is in virtue of sensations being intentional that they realize their health-preserving function. The thoroughgoing intentionalist claims that all sensations have intrinsic intentional content. Understood in this manner, intentionalism – at least of the thoroughgoing variety – entails that qualia realism is false.[6] But while representationalism entails intentionalism, intentionalism does *not* entail representationalism; whether the intentional content of all sensations is exclusively indicative (as on representationalism), or the intentional content of some sensations is (at least partially) imperative (as on imperativism) is a separate matter. Where we see representationalist readings failing, however, is in their inability to accommodate the following two claims:

> **Strong Health-Preservation**: Cartesian sensations are optimally conducive to the preservation of the health of the mind–body composite.
> **Anti-Inflation**: Whatever properties Cartesian sensations represent, those (instantiated) properties cannot illegitimately inflate Descartes' metaphysics of *res extensa*.

Suppose we have a theory of Cartesian sensations. Call it 'T.' If it is true on T that our sensations are anything less than strongly health-preserving, then T fails to accommodate Strong Health-Preservation. If it is true on T that our sensations (accurately) represent bodies as having properties that do not square with Descartes' metaphysics of *res extensa*, then T fails to accommodate Anti-Inflation. The claim we want to advance in the present section is the first step of our argument: in the case of pain, thirst and hunger, extant representationalist readings – if not representationalist readings as such – fail to accommodate both Strong Health-Preservation and Anti-Inflation.

We see Strong Health-Preservation and Anti-Inflation as well-founded desiderata for a theory of Cartesian sensations. Take Anti-Inflation. It is uncontroversial that Descartes ascribed to an austere mechanistic conception of *res extensa* (see, e.g., *Principles* II.4, AT VIIIA: 42/CSM II:

224). To say that Cartesian sensations represent bodies is to say that Cartesian sensations make claims about the way such bodies *are* – about the sort of properties they have. So, if we maintain that Cartesian sensations *accurately* represent, and that it is in representing such properties that Cartesian sensations effect self-preserving interaction with local bodies, then such properties better be admissible within Descartes' metaphysics of *res extensa*.[7] We will have cause to examine which properties are inadmissible as we proceed, but that there are 'Cartesian constraints' on the set of admissible properties should be unassailable.

Strong Health-Preservation is a bit more complicated. In the Sixth Meditation, Descartes is (in part) dealing with a sensory version of the problem of evil (AT VII: 84/CSM II: 58). The 'theodicy for sensory evil,' requires a reconciliation of apparent cases of sensory deception that lead to bodily harm (like dropsy) with God's benevolence.[8] A significant component of this theodicy turns on showing that although sensations deceive us in some sense, God was nonetheless maximally benevolent in designing our sensory system:

> Any given movement occurring in the part of the brain that immediately affects the mind produces just one corresponding sensation [*unum aliquem sensum*]; and hence the best system that could be devised [*in re melius posse excogitari*] is that it should produce the one sensation which, of all possible sensations [*ex omnibus quos inferre potest*], is most especially and most frequently conducive to the preservation of the healthy man [*hominis sani*]. And experience shows that the sensations which nature has given us are all of this kind; and so there is absolutely nothing to be found in them that does not bear witness to the power and goodness of God (Sixth Meditation, AT VII: 87–8/CSM II: 60).

Descartes is making a claim about the function of sensations, viz. that their function is to preserve the health of the mind–body composite. This, as just noted, is a central motivation for representationalist readings. But in the present passage Descartes is advancing a stronger claim that is not always appreciated. The correspondence between brain impressions and sensations is, of course, not arbitrary. Brain impressions are caused by physiological stimulation (e.g. a tickle), and the sensation (type) that corresponds to each brain state (type) is determined by what is appropriate for the preservation of our health with respect to that physiological stimulation. This set of correspondences, however, forms *the best system* – for each brain state-type, we have a corresponding sensation-type that is the *most* especially and *most* frequently conducive to the preservation of our health. As such, we can be assured that, whatever the physiological stimulation is, the resultant sensation is not only a state that plays a crucial role in the preservation of our health, but also a state that is *best* at doing so.

That Descartes is explicit on this score is important. He is making a very specific claim about the nature of our sensory faculties. To say that x plays

some role *R* is one thing; to say that *x* is *the best* at *R* is another. The function of a car is to transport objects from one point to another. It is conceivable that a car could be made of a hard cheese – Gruyère, say – but it likely wouldn't be a very good car. Descartes is saying that our 'sensory system' – the collection of sensation types corresponding to brain state types – is in an important way unlike the car made of Gruyère. It is, in its own way, made of something much better, and as such is 'especially and most frequently conducive to the preservation of the healthy man.' So, however one comes down on the details, accommodating if not explaining this basic claim about our sensory system is a test of adequacy for any interpretation of Cartesian sensations.

Thus, we think the textual case for Strong Health-Preservation is quite strong. Now on its own terms, Strong Health-Preservation does not actually tell us what it is that makes a given sensory system especially and frequently conducive to our health. However, we'll assume, following representationalist commentators, that what makes a given sensation and brain impression correspondence especially and frequently conducive to our health is the way the *content* of that sensation relates to the original distal cause of that brain state (e.g. De Rosa, 2007b, p. 323, fn. 37; Simmons, 1999, p. 358). Where we depart from representationalist commentators, however, is with the presumption that this content must be wholly indicative, i.e. that it must only make claims about the way the world *is*, to do the trick.[9] Our view, to be advanced later, is that this presumption is wrong when it comes to pain, thirst, and hunger; for what is best for our health in these cases is not that we have sensations which make claims about the way the world is, but that we have sensations which make claims about the way the world ought to be. What is best is that these sensations have *imperative content*.

How does the interplay between Strong Health-Preservation and Anti-Inflation shake out in the literature? To make things concrete, we work with arguably the two most prominent readings on offer: Alison Simmons' (1999, 2008) and Raffaella De Rosa's (2007a, 2007b, 2010). Simmons actually has two accounts; we'll start with her first account, turn to De Rosa's, and then explore Simmons' more recent treatment.

The theoretical centerpiece of Simmons' first account is the claim that, in realizing their function of effecting self-preserving interaction with the environment, sensations represent ecological properties instantiated in *res extensa* (1999, p. 355). Pains represent bodily *damage*, thirsts represent *dehydration*, and hunger represents *malnutrition*. In doing so they 'represent the world in a way that facilitates action by revealing to us how things stand relative to us and to our continued well-being' (ibid., p. 356). And so long as we do not treat sensations as representing what bodies are like as conceived by the 'Cartesian physicist' (ibid., p. 355), sensations do not merely represent, but represent accurately.

While Simmons' account might be able to meet Strong Health-Preservation, ecological properties run afoul of Anti-Inflation. As De Rosa

has forcefully argued, Descartes' metaphysics of *res extensa* preclude the instantiation of ecological properties (2007b, pp. 321–4; cf. 2010, pp. 100–3). We will not rehearse De Rosa's arguments in any meaningful detail here since – as we will see shortly – Simmons' new reading concedes these points. But briefly: De Rosa's central concern is that it is implausible that ecological properties can be instantiated in *res extensa* because they cannot reduce to the primary geometrical properties of bodies, nor can they supervene on such properties. We also run into a host of problems when trying to determine whether ecological properties should be defined relative to the wellbeing of the body or the wellbeing of the mind–body composite (2007b, pp. 321–4). We cannot, then, take Descartes' talk of properties like 'damage,' 'dehydration' or 'health' to imply that these properties are actually instantiated in bodies. Whatever Descartes means when he uses these terms, he is not being metaphysically rigorous. In short, we have our first exemplification of our challenge: in upholding Strong Health-Preservation, Simmons fails to uphold Anti-Inflation.

To satisfy Anti-Inflation, De Rosa proposes that sensations represent metaphysically innocuous properties – what she calls 'geometrical properties' like size, shape, location – albeit 'obscurely and confusedly' (2007, p. 317). De Rosa admits that this makes the survival relevant information afforded to us by sensations 'minimal.' Yet this 'minimal epistemic information provided by the senses is *used* by the mind–body union to navigate the environment successfully,' and sensations still 'serve the epistemically basic role of acquainting us with existing objects in the surrounding environment.' And that, De Rosa contends, is all we need sensations to do in the first place (ibid., p. 333).

This makes it tempting to think that De Rosa rejects Strong Health-Preservation. However, we don't see how she could; Descartes is clearly committed to it. He does not simply say that the mind renders whatever information the senses provide useful to the preservation of our health only when it is clarified by higher-order intellectual processes (ibid., p. 332). Rather, he is making a claim about the health and survival-relevance of sensations *independent of* these processes. What De Rosa must intend, then, is that the representation of metaphysically innocuous geometrical properties is sufficient for guiding maximally self-preserving interaction with local bodies – i.e. sufficient for Strong Health-Preservation.[10]

The problem is that if this move is to work at all, it must work for all sensations. Yet when it comes to pain, thirst, and hunger, it seems clear that representing mere geometrical properties won't do. Again, the point is *not* that De Rosa's reading is untenable because sensations will invariably need to be augmented by various higher-order processes. Indeed, we agree with De Rosa on this score; even if pains command, we must choose to follow that command to protect our bodies. Rather, the point is that the *kind* of information we *start* with – i.e. the kind of information the sensation *itself*

carries – matters *irrespective* of what else we may need to do in response to these sensations. Consider pain. For the kind of information pain carries to be conducive to the preservation of our health, there needs to be a meaningful connection between that information and our acting in ways that will on balance preserve our health. Information about geometrical properties has little to no implications for *how* we should act, or for our acting *in the first place*. In fact, if that's all pains represent, pains are likely to be motivationally inert; that I represent a part of my body as undergoing a disturbance of a certain size and shape would do no more motivate me to act than if I represented the fridge as a glass bottle filled with an amber-colored fluid.[11]

Commands, however, are different. They tell us *to* act, and when coming from a source we trust, they are guaranteed to motivate. They also tell us *how* to act; if a pain, corresponding with a brain impression resulting from (say) a broken ankle, commands me to take weight off my foot, I am told precisely what to do to protect my body and initiate the healing process. So, if one finds reason – as we do – to ascribe Strong Health-Preservation to Descartes, it is hard to see how representing geometrical properties will work in the case of pain, thirst and hunger. We need something else. In short, we have another exemplification of our challenge. Whereas Simmons can plausibly uphold Strong Health-Preservation, but falters on Anti-Inflation, De Rosa has the reverse problem: she upholds Anti-Inflation, but not Strong Health-Preservation.

Simmons' newer reading takes a different tack. Thus far, we have assumed that the survival-relevant properties (e.g. ecological properties) represented by sensations are instantiated in *res extensa*. The assumption was well founded; most commentators, Simmons included, want to show not only that sensations represent, but also that they do so *accurately* in order to vindicate God's non-deceptive nature.[12] This makes Anti-Inflation tricky, especially when the survival-relevant properties don't obviously jibe with Descartes' metaphysics of bodies. Perhaps seeing this problem, Simmons now concedes to De Rosa that 'properties like bodily damage (health, nutritiousness, poisonousness, dehydration, etc.) don't have a place in the world of Cartesian body' (2008, p. 105). Still keen to preserve Strong Health-Preservation, however, Simmons now claims that the mind projects the intrinsic pleasantness and unpleasantness of sensations onto bodies, which 'effectively represents *them* [bodies] as pleasant and unpleasant,' thus allowing us to 'recognize things in the corporeal world to be beneficial and harmful to us' (ibid., p. 103). This makes Descartes a *projectivist*.

Projectivism comes in two varieties. Following Wayne Wright, let's distinguish between *qualia realist* and *representationalist* versions of projectivism (2003). These views concur on the phenomenology: we experience phenomenal qualities as qualities of environmental bodies. But they depart over what, if anything, instantiates these qualities. On the qualia realist version, they are intrinsic properties of experience. I may experience

the rose as being red, but what is in fact red is my experience of the rose, not the rose itself. By contrast, on the representationalist version, the redness my experience represents the rose as having is not instantiated anywhere – it exists only in the contents of our experience, which are then misrepresented as being properties of bodies. Ordinary discourse about color is rife with error not because we take colors to be properties of the wrong thing, but because colors are not properties of *anything*. Colors exist. But nothing has color.[13]

Recall that a central assumption of this article is intentionalism, and relatedly, that it is in virtue of having the right kind of intentional content that sensations preserve our health. As such, if it turns out that Simmons' projectivist reading is actually a qualia realist projectivist reading, that would be cause to reject it, since it would *ipso facto* be subject to all the problems attendant to qualia readings – problems, we must emphasize, that Simmons *herself* sees as sufficient to reject a qualia reading. And as it happens, that is precisely the problem.

According to Simmons, 'sensory representation' picks out the constitutive result of two types of mental states: the mental state that is immediately produced in the mind upon physiological stimulation (what Simmons calls a 'sensation'), and judgments that project the properties of this sensation, i.e. its pleasantness or unpleasantness, onto a body (what Simmons calls 'psychological judgments'). What Simmons calls a 'sensation' is what we have been calling 'sensations' – pain, thirst, and so on. Let ***S*** be a sensation, and let ***P*** be a psychological judgment – the meta-psychological state that takes ***S*** as its object. Simmons' reading is a representationalist version of projectivism only if (i) ***S*** represents survival-relevant properties (e.g. ecological properties), and (ii) nothing instantiates these survival-relevant properties – neither anything in *res cogitans* like ***S*** or ***P***, nor anything in *res extensa*.

Now on one way of parsing Simmons' proposal, the survival relevant properties are just pleasantness and unpleasantness. But if that's the case, we have a violation of (ii); sensations don't represent, but *instantiate* the intrinsic phenomenal qualities of pleasantness and unpleasantness (2008, p. 103). On perhaps a more plausible parsing, the pleasantness and unpleasantness play, at best, an *associative* role. Here I come to judge that bodies are harmful (beneficial) by correlating unpleasant (pleasant) sensations with such bodies. After cutting myself on a thorn bush one too many times, I eventually judge that the thorn bush is a harmful body causing my unpleasant sensation, and in doing so represent that body as harmful. The problem with this option, however, is that it violates (i): it is not ***S*** that is representing survival-relevant properties, but ***P***. It is ***P*** doing the 'projecting.'[14] ***S*** itself doesn't represent anything as beneficial or harmful. Simmons is forthright that without ***P***, we would not experience these intrinsic properties *as* properties of bodies (ibid., p. 86). But that's a problem:

Strong-Health Preservation claims that it is *sensations* that are crucial in preserving our health, and intentionalism claims that it is in virtue of sensations being *contentful* that they do so. Alas, this is just not so on Simmons' new account. In sum, on either parsing, what Simmons has given us is really just qualia realism, which, in effect, is to give up the game altogether.[15]

Before we press on, there's a potential worry worth addressing. In claiming that representationalist commentators like Simmons and De Rosa construe Cartesian sensations as having exclusively indicative content, we are advancing a semantic thesis. That shouldn't be terribly surprising, since that's part and parcel of all versions of representationalism. To say that sensations represent – even in the broad sense under which *our* account is representational (see note 1) – is, at least in large part, to claim that sensations 'say something' about the world. But one might wonder whether this is justified. After all, it's not as if Simmons and De Rosa ever use the term 'indicative content.' Perhaps, the thought continues, the value here is purely instrumental: the contrast with indicative content just serves to make imperativism a clear alternative, not to actually track anything about Simmons and De Rosa's views themselves.

It is true that Simmons and De Rosa (along with other representationalist commentators) don't explicitly use the term 'indicative content,' and it is true that there is *some* instrumental value in invoking the notion of indicative content. Yet this doesn't make our construal of representationalist readings misleading. Three points draw this out, in increasing order of strength. First, since 'representationalism' and 'content' are contemporary terms, it would be somewhat odd if they weren't beholden to contemporary uses, even when doing history. And our use is in line with the contemporary use: when representationalists talk about sensations having content, they are talking about content individuated by a set of correctness conditions which specify the way the world is (see, e.g. Martin, 2002; Martinez, 2015). That's all that is meant by 'indicative content.' Second, Simmons herself comes very close to saying precisely this: '[s]ensations conduce to self-preservation by *showing the mind what bodies (its own included) are like*, not in themselves as conceived by the Cartesian physicist, *but relative to its own body's well-being*' (1999, p. 355, emphasis in original). To say that sensations 'show' what 'bodies are like' is to say that sensations make a claim about the way bodies are – it is to say what properties they have, egocentric or not. In other words: it is to say that sensations have indicative content.

Here's the third and perhaps most important point. De Rosa's charge that Simmons' account fails to meet Anti-Inflation, along with Simmons' later concession of this fact and De Rosa's insistence that her own view avoids this problem, wouldn't even make sense unless both sides were concerned with indicative content. Anti-Inflation's bite comes from two things: (i) that sensations must be non-deceptive in some sense, and (ii) that sensations

attribute a certain class of properties to *res extensa*. But (ii), again, is just a matter of sensations having indicative content. And it should be clear why (ii) is indispensable: if sensations don't make claims about how the world is, then why would anyone worry about the content of sensations scuttling Descartes' tidy metaphysics of body? Indeed, as we will see, it is because we reject (ii) that Cartesian Imperativism is able to meet Anti-Inflation. So, taking these three points together, we think that our depiction of representationalist readings is accurate.

2. *Re-reading pain, thirst and hunger in the Sixth Meditation*

With the problems of representationalist readings of pain, thirst and hunger now in clear view, we think a new approach is in order. That new approach is imperativism. Colin Klein's work (2007, 2012, 2015) was the primary impetus behind contemporary attention to imperativism, with additional development by Richard Hall (2008) and Manolo Martinez (2011). Our discussion will largely focus on pains, but this is only an artifact of it dominating much of this contemporary discussion.

Representationalist readings treat sensory experience as a propositional attitude akin to the non-factive attitude of believing, in the sense that our experiences involve commitments to theses about how the world is (cf. Byrne, 2001; Crane, 2009). In this way, sensory contents can be understood in terms of correctness conditions. Suppose I have a visual sensory experience as of a lion in the savanna. My experience will be correct only if there is a lion in the savanna. Thus the content of my experience is *that there is a lion in the savanna*.

Imperativism resists extending this story to pains and other bodily sensations. Instead of having content akin to a proposition or a description, pains express commands. For example, consider commands like:

- Turn up the air conditioning!
- Lower the music!

These imperatives are not accurate or inaccurate, and thus are not truth-apt. Instead, like desires, they are associated with a set of *satisfaction conditions*; their direction of fit is *world to mind*, not *mind to world*.[16] And although it is true that I *presuppose* that the world is a certain way consistent with (say) the music not having been lowered, I do not – as Klein notes – utter my command so that I express the proposition that the music needs to be lowered (2007, p. 518).

There are many versions of imperativism (see, e.g. Klein, 2015), most of which differ in terms of how they understand the specific imperative content.

Fortunately, we don't need to work through these details. For our purposes, we can just stipulate that the content of a pain is something like a command to protect one's body (Klein, 2015):

- Keep your leg from bearing weight!

Or perhaps a 'removal-imperative'(Martinez, 2011), something like:

- Don't have this bodily disturbance!

And hunger and thirst can be treated as *positive* imperatives (i.e. prescriptions) to perform certain actions: to *eat* when we experience hunger and *drink* when we experience thirst.

More important is the distinction between *pure* imperativism and *mixed* imperativism. On pure imperativism, imperative sensations *only* command. The intentional content of (say) a pain *just is* its imperative content. The mixed imperativist says that imperative sensations command *and* describe. They have both imperative and indicative content.

We prefer pure imperativism. Yet we recognize the possibility that Descartes might be a mixed imperativist. So, officially, we will leave that option open. In a way, this might make it seem like the case for Cartesian Imperativism has become far too easy; with mixed imperativism at our disposal, if Descartes talks about pain, thirst and hunger representing, the proponent of a mixed imperativist reading can simply posit that Descartes is talking about their representational component. We disagree. A consequence of our argument in the preceding section was that it is exceedingly difficult to accommodate Strong Health Preservation in the case of pain, thirst and hunger with *only* (accurate) representational contents. So, absent reverting to a qualia reading, this suggests that accommodating Strong Health Preservation requires that one appeal to a *new* kind of content. But that gives us an interpretive prediction. For if Descartes is an imperativist of *any* stripe, then we should not expect him to be using clearly representational language (or at least not primarily representational language) when talking about pain, thirst and hunger in the context of their health-preserving role.[17]

With these distinctions in hand, let's now proceed to the texts. Recall, in the Sixth Meditation Descartes is dealing with a sensory version of the problem of evil. His theodicy consists in proving that God was benevolent in designing our sensations. More specifically, Descartes claims that we have the 'best system,' i.e. one that, for each sensation-type, we have the 'one sensation, which, of all possible sensations is most especially and most frequently conducive to the preservation of the healthy man.' In other words, Descartes' theodicy consists in proving that God has given us *the best of all possible sensations*. What makes a sensation the best of all

possible sensations will depend on the type of content it has. This occasions the following question: what kind(s) of content is the best for each sensation-type?

In defending his claim that we have the 'best system,' Descartes looks to pain and thirst. (His remarks about hunger come in a different context.) He adds that what is true of pain and thirst generalizes to all sensations; just as pain and thirst have the best content, '... so it is in other cases.' It is in taking pains and thirst as his operative examples that Cartesian Imperativism begins to surface:

> When the nerves in the foot are set in motion in a violent and unusual manner, this motion, by way of the spinal cord, reaches the inner parts of the brain, and there gives the mind its signal for having a certain sensation, namely the sensation of a pain as occurring in the foot. This stimulates the mind to do its best to get rid of the cause of the pain, which it takes to be harmful to the foot [*a quo illa excitatur ad eius causam, ut pedi infestam, quantum in se est, amovendam*]. It is true that God could have made the nature of man such that this particular motion in the brain indicated something else to the mind; it might, for example, have made the mind aware of the actual motion occurring in the brain, or in the foot, or in any of the intermediate regions; or it might have indicated something else entirely. But there is nothing else which would have been so conducive to the continued well-being of the body. In the same way [*eodem modo*], when we need drink, there arises a certain dryness in the throat; this sets in motion the nerves of the throat, which in turn move the inner parts of the brain. This motion produces in the mind a sensation of thirst, because the most useful thing for us to know about the whole business is that we need drink in order to stay healthy [*quia nihil in toto hoc negotio nobis utilius est scire, quam quod potu ad conservationem valetudinis egeaumus*]. And so it is in other cases (Sixth Meditation, AT VII: 88/CSM II: 60–1).

One might wonder whether it is clear, from this passage alone, that Descartes intends to ascribe *any* sort of content to sensations. And of course it's not. For instance, when Descartes says that pain 'stimulates the mind to do its best to get rid of the cause of the pain,' he might have had in mind a purely causal story, one that obtains simply because God created us this way, rather than anything to do with content. However, the *broader* context shows that this reading is untenable. As Simmons makes clear, this passage comes in the context of a discussion about sensory error, and this only makes sense on the presumption that sensations have content. After all, if sensations were qualia, sensations themselves would not be a source for error regarding corporeal reality, since they would make no claims about corporeal reality in and of themselves (1999, p. 352).

So we'll assume – with representationalists – that Descartes is talking about content. But notice: there is no presumption that the content here must be indicative. After all, he doesn't say that pains represent.[18] Indeed, without this assumption, the description sounds imperatival. The main reason for this is that Descartes is talking about sensations *enjoining certain actions*. Descartes says that pain 'stimulates the mind to do its best to get rid

of the cause of the pain which it takes to be harmful to the foot.' The claim 'do its best to get rid of' is an oblique way of talking about action. And enjoining actions are what imperatives do – they urge us to make it such that the world is a certain way. Setting aside the brute causal reading, if we take this claim as a description of the content pains have, it's reasonable to infer that this content is imperatival. Whatever the content is, it's the sort of content that enjoins actions. That's imperative content.

This point is important, and the fact that Descartes talks this way should be quite puzzling to the representationalist. On indicative content, pains make a claim about the way the world is. Of course, this doesn't mean that indicative content cannot refer to things *related* to action. We can plausibly represent objects as having a certain property like the property of being *actionable* (see, e.g. Nanay, 2012). I might be able to represent a piece of cake as edible or a rock-face as climbable. But that's something different altogether, and not what Descartes is saying. Rather, he is saying that the content of pains tell or urge me to act such that the cause of my pain is mitigated, not that the cause of my pain is *capable of being mitigated*.

This suggests a Cartesian Imperativist reading of pain. On one straightforward possibility, pain 'stimulates' the mind to get rid of the cause of pain because the content of a pain contains a command, something like:

(C1) Get rid of this bodily disturbance!

This would give us a form of pure imperativism. But Descartes also says that the mind takes the cause of the pain 'to be harmful to the foot.' If we read this claim as implicating content as well, we then get a form of mixed imperativism, where pain would have dual content. Something like:

(C2) (C2a) Get rid of this bodily disturbance
(C2b) This disturbance is harmful.

The indicative content (C2b) on mixed imperativism might cause trouble with Anti-Inflation. But (C2b) is not essential to mixed imperativism, and in any event the pure imperativist can tell a story about why Descartes makes this claim without appealing to any additional indicative content (see §3). Naturally, (C1) and (C2) should be taken as *models*; there is no need here to assume that Descartes is giving a literal description of the imperative content of pain. The idea is that, given that we are assuming that Descartes is appealing to content here at all, it is hard to see how talk about sensations enjoining actions could amount to anything but their having some form of imperative content.[19]

And we see similar things when we turn to thirst and hunger. Regarding thirst, Descartes says, the 'most useful thing for us to know about the whole

business [i.e. dryness in the throat] is that *we need drink*.' Here the content of thirst might simply be the command:

(C3) Drink!

Notice how (C3) differs relative to (C1) and (C2). Descartes is more direct in describing the sort of action pain prescribes. That should not be surprising. For the link between action and content is tighter in the case of thirst than it is in pain. The type of action that is appropriate when one is in pain is less variable than when one is thirsty. (When I′m thirsty I′m not commanded to drink something specific, just to drink *period*; pains, by contrast, plausibly always tell me to protect a specific body part.)

What about hunger? Though Descartes does not use hunger as an operative example, elsewhere in the Sixth Meditation he discusses hunger in tandem with thirst. For example: 'Why should that curious tugging in the stomach which I call hunger tell me [*admoneat*] that I should eat, or a dryness of the throat tell me to drink, and so on?' (Sixth Meditation, AT VII: 76/CSM II: 53).[20] Here, the point about enjoining actions is also relevant. Although we can (indicatively) represent water as drinkable, doing so doesn't 'tell me' to drink. It tells me that something is drinkable. Descartes is pointing to a more direct connection with action, and that's precisely what you would expect if he were an imperativist. My sensation of thirst tells me to drink because the content of that sensation is 'Drink!.' Similarly, my sensation of hunger tells me to eat because the content of that sensation is 'Eat!.'

The primary text also supports an imperativist reading. If Descartes thought that hunger and thirst were representational, then presumably he would employ his standard representationalist language. For example, Descartes is clear that his ideas of substance have representational content:

> Undoubtedly, the ideas which represent [*exhibent*] substances to me amount to something more and, so to speak, contain within themselves more objective reality than the ideas which merely represent [*repraesentant*] modes or accidents (Third Meditation, AT VII: 40/CSM II: 28).

However, when he describes the sensations of pain, thirst and hunger, he *rarely* uses standard representationalist language such as *repraesentare*. Indeed, the key term in the above text, 'tell,' isn't a translation of *repraesentare*. It is a translation of *admonere*. Standard translations of *admonere* include 'to warn,' 'to advise,' and 'to admonish.' Descartes' use of *admonere* suggests that hunger and thirst are intentional states. But deprived of the assumption that intentional content just is representational content, an imperativist reading appears. For a primary means of warning, advising, or admonishing is by commanding.

We conclude that there are purely textual grounds for Cartesian Imperativism. But we don't think the best case for Cartesian Imperativism

rests there. The last step of our argument shows that, in contrast with representationalist readings, an imperativist reading meets both Strong Health-Preservation and Anti-Inflation. This shows that there is a systematic case in favor of Cartesian Imperativism.[21]

3. *The virtues of imperativism*

Let's start by seeing how Cartesian Imperativism handles Anti-Inflation. On pure imperativism, pain, thirst and hunger do not have indicative content, and thus make no claims about the way the world *is*, only about the way it *ought* to be; *a fortiori* we do not need to posit survival relevant properties like ecological properties (instantiated or not) as represented properties. This is simply a feature of imperative content. When sensations have imperative content, they do not attribute any properties to objects *period*. Their structure is not predicative. So any worry about Anti-Inflation is a non-starter.

On mixed imperativism, the story is different; pain, thirst and hunger will also have indicative content. But even if we insist that they accurately represent, there is no worry about Anti-Inflation. The Cartesian mixed imperativist can say that pains, hunger and thirst represent 'De Rosa-style,' i.e. represent shape-size-location properties. This is no blow to their having a strong health-preserving role, however. Most or perhaps the whole share of that role can be played by the imperatival component. So inflating Descartes' metaphysics of *res extensa* is not a problem. Thus Anti-Inflation is met.

A related note: as hinted at earlier, the imperativist has a natural way of explaining Descartes' talk of benefit and harm in the context of biological function. Without appealing to any indicative content, pure imperativism has the biggest hurdle. So if the pure imperativist can give a plausible treatment of Descartes' talk of benefit and harm, any imperativist can. Here's what we propose: on pure imperativism, information about benefit and harm is not intrinsic to sensations, but *inferred* from them. Recall: even though the content of pain and thirst is not representational, this does not mean we cannot infer a whole host of propositions from them. When I am commanded to drink, I infer *that water is beneficial* (AT VII 81/CSM II 56). What makes water beneficial is that it can figure into the satisfaction conditions for a sensation that has a positive command as its content. Bodies are thus not beneficial intrinsically, but beneficial within the context of our acting with or using them in some way (*modulo* the requisite differences for harmful bodies). So pure imperativism can handle Descartes' talk of sensations informing us of beneficial and harmful bodies without collapsing into a form of representationalism and then violating Anti-Inflation.

What about Strong Health-Preservation? On imperativism, pain, thirst and hunger are *homeostatic sensations* (Klein, 2015). We have these

sensations in order for us to act in ways that bring our body back into a healthy balance. Descartes echoes this idea in the *Passions*:

> Hence, their [sensations] natural function is to move the soul to consent and contribute to actions which may serve to preserve the body or render it in some way more perfect (*Passions* II.137, AT XI: 429–30/CSM I: 376).

Descartes' remarks here are telling. To be sure, that pain, thirst and hunger are imperatival doesn't follow in the strict sense from the fact that pain, thirst and hunger are homeostatic. But the two positions mesh incredibly well, and there is good reason to think that only an imperativist account is plausible on the premise – which Descartes clearly endorsed – that these sensations are homeostatic (Klein, 2015).

Let's dwell on this point a bit. Sensations can 'move the soul to consent and contribute to actions,' but the way a particular sensation does this will differ depending on the sub-role that sensations of that type play in preserving our health. This falls out of Strong Health-Preservation; we cannot have the 'best system' unless the content of each sensation-type is tailored to the specific health-preserving role it plays.

With this in mind, consider the following argument from Klein (2007, pp. 525–6). Begin, by way of comparison, with an ordinary case of visual awareness. As Klein notes, when I see something, there are many contexts where a contingency of response with respect to the presented items confers a biological advantage (ibid., p. 525). How we ought to respond upon seeing a brown thing depends on the context – for instance, on what else we know about the brown thing. It may be appropriate to leave quickly (if the brown thing is a Grizzly bear), or it may be more appropriate to give it a hug (if it's a friendly chocolate Labrador Retriever). This is true of perceptual awareness generally; when I hear or smell an x, how I ought to respond to x varies greatly. The upshot is that from a biological perspective, anything but a contingent relationship between the content of such sensations and the appropriate action is maladaptive. That's why a purely indicative content is best in such cases, and why, we venture, Descartes was right to be a representationalist when it comes to visual experience.

Things are otherwise, however, with pain, thirst and hunger. Once again, focus on pain. All other things being equal, when I am in pain, what I ought to do is fixed in a manner unlike when I see a brown thing: the appropriate response is simply to stop acting in a way that would cause more harm to my body.[22] This suggests that anything aside from a fixed relation between the content of pain and appropriate action will be detrimental to the preservation of our health:

> A merely contingent relationship between the content of pains and the biologically crucial response of limiting movements would therefore only hurt us, at least in the majority of cases. As such, an informative content to pain would be positively maladaptive (Klein, ibid., p. 526).

By treating pains as imperatival, this contingency is eliminated: pains *limit* action by commanding against using your body in ways that would be damaging (ibid.). The same point can be made for thirst and hunger. All things considered, when we are thirsty or hungry, what we need to preserve our health is to be driven to drink and eat. An effective system for doing so, as Klein notes, 'should not bother with the niceties of explaining why' (ibid.).[23]

Therefore, we conclude that Cartesian Imperativism meets Strong Health-Preservation. Indeed, if Klein's argument is successful, and we take Descartes' talk of 'best' in 'best system' in the most strict, literal sense, we're actually entitled to something stronger; when it comes to pain, thirst and hunger, *nothing but* Cartesian Imperativism meets Strong Health-Preservation. Yet even if Klein's argument falls short, Cartesian Imperativism still fares far better on Strong Health-Preservation than De Rosa's representationalism, and at the very least *no worse* than either of Simmons' readings. Coupled with its advantage on Anti-Inflation, Cartesian Imperativism is the only intentionalist reading that meets both desiderata.[24]

4. *Looking forward*

We have argued that there is a strong case to be made that Descartes is an imperativist about pain, thirst and hunger. There is direct textual evidence. It's not unequivocal, but then again it's not for representationalists, either. And although the difference between our proposal and extant representationalist readings is subtle, there is good reason to believe that without it Descartes' background commitments are (when taken together) problematic. For consider: there is, *pace* the qualia realist, a far-reaching textual basis for the claim that sensations have intentional content. So let us assume intentionalism. Then ask: given intentionalism, *what sort* of intentional content ought we attribute to particular sensory modalities when faced with Strong Health Preservation and Anti-Inflation? What we have seen is that, insofar as pain, thirst and hunger go, the best way to balance these commitments is by attributing to them (at least some) imperative content. Imperative content, unlike indicative content, makes no claims about the way the world is. Representationalist readings of pain, thirst, and hunger say otherwise. Yet it is *only* by saying otherwise, coupled with some assumptions concerning general veridicality, that concerns about Anti-Inflation arise. Thus while there is much that we agree on – we agree, for instance, that considerations of the functional role of sensations in the preservation of our health is a presumptive reason in favor of intentionalism – what we do disagree on is critical.

To summarize, the following table captures the primary differences between the main competing options (Table 1):

Table 1 The Options ('PTH' stands for pain, thirst, and hunger)

	Do all sensations have intentional content?	**Do PTH have *only* indicative intentional content?**	**Do PTH have at least *some* indicative intentional content?**	**Do PTH have *only* imperative intentional content?**
Qualia Realism	No	N/A	N/A	N/A
Representationalism	Yes	Yes	Yes	No
Pure Imperativism	Yes	No	No	Yes
Mixed Imperativism	Yes	No	Yes	No

The scope of this article has been somewhat limited, as our analysis has focused on a subset of bodily sensations. It should be clear, however, that the reading presented herein has deep roots, connecting (at the very least) to Descartes' metaphysics of *res extensa*, his theodicy for sensory error, and his theory of biological function. Exploring and enriching these interconnections will be a fruitful source of future research.[25]

Moreover, the emerging picture of Cartesian sensations is – initial appearances notwithstanding – unified. On our view, Descartes is an *unrestricted*, thoroughgoing intentionalist. All sensations have intentional content. So at that level of abstraction, Descartes has a consistent and to some extent simple picture: sensations are intentional states. But also on our view, Descartes is a *restricted* representationalist: visual, auditory, and olfactory sensations (amongst others) have intentional content that is solely indicative.[26] The motivation behind this is, again, a principled one: whether a sensation has solely indicative content or (at least some) imperative content will depend on that sensation's unique role in the preservation of our health. Naturally, some new representationalist reading of pain, thirst and hunger might eventually come along – we considered and rejected a few hypothetical accounts earlier – but in general we are pessimistic of their prospects for success. The reason should be, we hope, fairly clear: the unique role pain, thirst and hunger play in the preservation of our health makes accommodating Strong Health-Preservation and Anti-Inflation significantly more difficult when our toolkit is limited to indicative content. And that, we contend, is precisely the point that Descartes not only recognizes, but also capitalizes on in the Sixth Meditation.[27]

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NOTES

[1] 'Indicative intentional content' is often called 'representational content,' and for this reason we do not include the term 'representational' when describing imperative content (cf. Martinez, 2011, 2015; Klein, 2015). We suspect that this issue is largely verbal, however; as long as one can understand the difference between content individuated by correctness (or accuracy) conditions and content individuated by satisfaction conditions, you can get the basic idea of imperativism. Imperativism will be fleshed out further in §2.

[2] We employ the following abbreviations for primary texts and translations of Descartes' work: 'AT': *Oeuvres de Descartes*, *12 vols.*, edited by C. Adam and P. Tannery; 'CSM': *The Philosophical Writings of Descartes*, *2 vols.*, translated by J. Cottingham, R. Stoothoff and D. Murdoch.

[3] It's not obvious that material falsity and objective reality show anything about the *kind* of content sensations have at all, let alone specifically indicative content. For a reading that supports this claim (as it pertains to material falsity), see Alan Nelson (1996, pp. 23–9, cf. Nelson, 1997). In short, Nelson's argues that material falsity is a property of a complex state – sensations conjoined with a sensory judgment – not a property of sensations themselves. Thus material falsity tells us nothing about the intrinsic content of sensations. With respect to objective reality, Descartes only claims that mental states with objective reality have intentionality: 'there can be no ideas which are not as it were of things' (Third Meditation, AT VII: 44/CSM II: 30). This does not mean, nor does Descartes elsewhere imply, that objective reality demands a specific kind of intentional content (e.g. indicative content). Also, even if this were false – even if objective reality and material falsity entailed the presence of indicative content – that's still consistent with Cartesian Imperativism, since that wouldn't imply that pain, thirst and hunger *only* have indicative contents. See note 4.

[4] That all sensations have intentional content does not imply that whenever a sensation has intentional content, that content is indicative content, and so does not rule out the possibility that (some) sensations also command (and thus also have some intentional but non-indicative content). As will become clear, although there are 'pure' versions of imperativism (Klein, 2007, 2015) it is consistent with imperativism that sensations have indicative content and imperative content (Hall, 2008; Martinez, 2011). Our view, however, is that whatever form of imperativism is included in Cartesian Imperativism, it's imperative content that does the brunt of the work when it comes to health-preservation.

[5] For qualia readings, see, e.g., MacKenzie, 1990; Field, 1993; Alanen, 1994; and Cunning, 2006, with Malebranche generally being regarded as having set the precedent (see 1997, p. 3 and p. 228).

[6] To say that a sensation has *intrinsic* intentionality is to say that insofar as they have content, it is *not* in virtue of their standing in relations to intentional states *distinct* from themselves – in other words, their intentionality is *non-derivative*. (Linguistic representation is perhaps the paradigmatic example of derived intentionality. For discussion, see Searle, 1983, or in the content of intentionalism, Bourget, 2010.) Qualia readings are compatible with the claim that sensations have derivative intentionality (De Rosa, 2007a, p. 182).

[7] The stipulation about accuracy pertains to a background pressure, viz. acquitting God of the charge of being a deceiver (Simmons, 1999, p. 351). The qualia realist line is perhaps the most straightforward: deny that sensations represent, and so deny (*a fortiori*) that they misrepresent. But barring that, another strategy – the one adopted by Simmons – is to say that *when considered qua their proper role*, sensations *do* represent accurately. Yet this line incurs a debt. If a sensation Q represents a body x as F, and Q is accurate, then x *is* F – i.e. x instantiates F. And then we can ask whether F is an admissible property – i.e. whether x's having F violates Anti-Inflation. Of course, if the representationalist were to adopt a full-blown error theory, where Q represents a body x as F, but x is *not* F, then Anti-Inflation would be a non-starter. This route is still unattractive, however, since it remains the case that God is deceptive. We assume that it is preferable for a reading to meet Anti-Inflation *and* have the tools to acquit God of being a deceiver. (As we'll

see, a benefit of imperativism is that by appealing to content, it avoids qualia realism, but by appealing to imperative content specifically, it also avoids *truth-apt* content, and so dodges the most straightforward forms of sensory deception altogether. For more on deceptiveness in the case of bodily sensations more generally, and imperativism in particular, see note 8 and note 12.)

[8] It might seem awkward to some ears to call bodily sensations deceptive. To some, if it *seems* that I am thirsty, it follows that I *am* thirsty, whether or not I have dropsy. But there is another sense in which dropsy is deceptive. Compare two cases: *Normal* and *Abnormal*. In *Normal*, I am parched. However, my mind–body composite is functioning normally, so we can presume that my thirst sensations arise from the fact that the composite is dehydrated, and drinking would preserve its health. In *Abnormal* I am also parched. But here the mind–body composite is not functioning normally: I have dropsy. Drinking would be harmful for the composite. Alas, *Normal* and *Abnormal* are phenomenologically indistinguishable. There is no phenomenal cue to distinguish the two cases: presumably, from the first-person perspective, what it is like to be thirsty when the mind–body composite is functioning normally is type-identical to what it is like to be thirsty when one has dropsy. Of course, we may learn after the fact (say, by consulting with a physician) that we have dropsy, but nothing about the sensory experiences themselves that occur in cases like *Abnormal* will tip us off that this is so, and that we should not drink. It is in this sense that dropsy is not only deceptive, but also harmful because it is deceptive.

[9] Representationalist need not construe sensations as making claims about how bodies are essentially or intrinsically; they could tell us how bodies are relative to our own wellbeing (Simmons, 1999).

[10] De Rosa remarks that '[t]he biological function of the senses results from the minimal epistemic information carried by the senses rather than being a consolation price for the lack of epistemically relevant information carried by them' (2007b, p. 333).

[11] This might not be the case if pains represented tissue damage as having *evaluative* properties, like *being bad*. Schmitter (2008) hints as a proposal along these lines. The problem is that this runs head on into Anti-Inflation, which is precisely what De Rosa is trying to avoid.

[12] See also note 7. We don't presume that misrepresentation is the only route to deceptiveness. For instance, imperative content is not truth-apt, but we don't think this means pains can never be deceptive. On Klein's (2012) account of phantom limb syndrome, phantom limb pains are imperative states with a false presupposition – viz. that the command being issued can be followed. Having an unsatisfiable command as a content is a perfectly good way for a sensation to be deceptive.

[13] Although projectivism is standardly introduced in discussions of color (e.g. Boghossian and Velleman, 1989), it has extensions as a more general thesis (e.g. Robinson, 1998). The distinction between qualia realist and representationalist projectivism is akin to Shoemaker's (1994) distinction between 'literal' and 'figurative' projectivism.

[14] Sensations might still have derivative contents here, but that won't help – see note 6.

[15] Representationalist projectivism is possible, but unattractive. The textual evidence is thin, and comes with a plethora of additional theoretical commitments: (i) the existence of uninstantiated properties, (ii), our ability to be aware of uninstantiated properties, and, like all forms of projectivism, (iii) an error theory about sensory perception. (iii) is especially problematic since it exceedingly difficult to tell a story in which God is not a deceiver. Imperativism does not incur any such debts – for (iii), see note 7.

[16] However, unlike desires, imperatives are not satisfied by the world simply coming to be a certain way. Instead, they demand an action from the person being commanded (Klein, 2007, p. 518). If I desire for the volume of the music to be lowered, *how* I satisfy the desire is typically irrelevant. I could lower the volume myself, or have someone else do it for me. By contrast, if I command my son to mow the lawn, my command won't be satisfied by his bribing his younger sister to do it for him.

[17] None of this is to say that 'Anti-Inflation safe' indicative content will have *no* role in preserving our health. It's only to say that imperative content will play the preponderance of that role.

[18] Indeed, we only know of one instance where Descartes seems to suggest that pains are representational (*Passions* II.94), and even here it seems like he might be talking about brain impressions instead. This point is stronger in the case of hunger and thirst: we know of *no* instances where Descartes explicitly say that these sensations represent.

[19] This point about not taking content-ascriptions too literally generalizes. As Klein and Martinez (2016) note, to articulate the content of a sensation we invariably do so by means of a sentence in natural language. This is true no less for representationalists as it is for imperativists. In doing things this way we get a quick snapshot of the theory, but as Klein and Martinez also note, there is risk of being misled; sensations are not linguistic entities, and there may not be a neat mapping between the contents we can express in natural language and the contents that can be carried by mental vehicles (ibid.). (Of course, improving on linguistic paraphrases requires an explicit model of content. Providing one in not appropriate here, but it's worth noting that several approaches are actually explicit on what counts as imperative as opposed to indicative content. See, e.g., Skyrms, 2010; Klein and Martinez, 2016.) This is worth belaboring because there are places where Descartes seems to warn against lumping the kind of content sensations can have with the kind of content carried by thoughts or those expressible in language (see, e.g. 6th Replies AT VII: 437/CSM II: 295). On another, but still related, note, contemporary imperativists reject the view on which the difference between indicatives and imperatives is simply a difference in illocutionary force, and this is in-line with general trends in the literature on content (e.g. Hanks, 2007; Parsons, 2013). The upshot is that there is nothing in imperativism as such that requires we pack something like a mental act of volition into sensations – we don't need, say, an act of judgment expressible as 'remove that bodily disturbance.' This tallies well with Descartes' activity-passivity distinction. See also note 25.

[20] In a similar vein Descartes says, 'There is nothing that my own nature teaches me more vividly than that I have a body, and that when … I am hungry or thirsty the body needs food and drink' (Sixth Meditation, AT VII: 80/CSM II: 56); and 'when the body needed food or drink, I should have an explicit understanding of the fact, instead of having confused sensations of hunger and thirst' (Sixth Meditation, AT VII: 81/CSM II: 56). See also *Passions* II.137, AT XI: 429–30/CSM I: 376.

[21] One might notice that we haven't discussed itches. This might seem odd given that itches are usually included within the general imperativist picture (Hall, 2008; cf. Klein, 2007, 2010). However, since Descartes (to the best of our knowledge) never talks about itches, we are uncomfortable with officially ascribing to him any view about itches here. That said, given his reasons for being an imperativist at all, Descartes would likely say that their content is not (*pace* Hall, 2008) 'Scratch!' but a removal-imperative like 'See to it that this skin disturbance does not exist!' This ensures that God did not give us sensations that explicitly command us to do something detrimental to our health (like itching).

[22] Of course, the commands expressed by pain, thirst, and hunger are still subject to second-order desires. We can disobey them. And that's a good thing – hence the 'all other things being equal' proviso. There are cases where we may want pain to continue, or we don't want to eat despite feeling hungry. But this isn't a problem for imperativism (of any stripe.) Suppose I am at the gym trying to add muscle-mass. (Thanks to an anonymous referee for this example.) Part of adding muscle-mass is breaking down muscle tissue. This can be, and often is, quite painful. It is common to hear at gyms that you need to 'push through the pain.' What does this mean? On imperativism, the pain in your (say) biceps still says 'STOP!' Or if you like mixed imperativism, it's say this, plus something indicative. Either way, the pain *should* say 'STOP!,' because in most contexts, that sort of pain is positively bad for you. It's only because of certain local facts – commitments to certain diets, stretching, and general preparation – that it isn't. And that's why your second-order desire overrides the first-order command.More generally, we think that Descartes recognizes the need for bodily sensations to be subject to second-order desires in this way. This is because things can malfunction. Sensations of thirst resulting from dropsy

commands us to drink just like any other sensation of thirst. (See note 8.) Following this command would be bad. If we know that to be the case, our desire for self-preservation will (hopefully) be strong enough to override the command. The possibility of malfunction is not unique to imperativism. It's a fact representationalists must also face, due to our finitude as embodied beings. Our point is that the unique role pain, thirst, and hunger play in the preservation of our health suggests that imperative content is best *on balance*, even if there are occasional cases where following the command would be maladaptive.

[23] Klein couches his argument in terms of pure imperativism, but we don't think an appeal to mixed imperativism necessarily scuttles things. It might be that the mere *presence* of imperative content is sufficient to eliminate a contingent relationship between the content of pains and appropriate action.

[24] It is tempting to think that our view has more in common with Simmons' ecological account, especially when we consider the way in which both views go to great pains (pun intended) to overtly emphasize Strong Health-Preservation. Yet it is worth recognizing that the imperativist – especially the pure imperativism – shares common ground with De Rosa's representationalism too. De Rosa points out that the senses provide us with 'minimal information.' When it comes to pain, thirst and hunger, the pure imperativist concurs; the causes of pain are a heterogeneous bunch, and pains rarely if ever clue us in on *why* they occur (Klein, 2015). I may later on come to know that I have broken my ankle, but this does not imply that the pain itself tells me that the ankle is broken. What De Rosa misses, however, is that what matters for Strong Health-Preservation is not the *amount* of information, but the *kind*. And as we have argued, the representation of purely geometric properties does not suffice.

[25] The austerity of Descartes' metaphysics of *res extensa* was part of the motivation for imperativism. Yet we might wonder whether the imperativist reading also has implications for Descartes' metaphysics of the *mind*. One issue that might be pertinent here is the activity-passivity distinction. By making the content of pain, thirst, and hunger commands, the thought goes, we are making what are supposed to be *passive* sensations into *active* states of the mind. Now earlier (see note 19) we briefly remarked that this is not actually true on imperativism. Contemporary imperativists reject the idea that the difference between imperatives and indicatives is simply a difference in illocutionary force, and (as far as we can tell) Descartes can help himself to this move as well. So the imperativist reading can accommodate the standard activity-passivity distinction. But as an anonymous referee points out, closer scrutiny of the *Passions* suggests a puzzle. For there we find Descartes suggesting that passions are *also* actions (*Passions* I.1, AT XI: 327/CSM I: 328). For example, Descartes claims that the bodily sensations of pain, thirst, and hunger are 'natural appetites' in virtue of having volitional components (*Passions* I.24 AT XI: 346–7/CSM I: 337; *Passions* I.47 AT XI: 364–6/CSM I: 345–6). To put it in Spinozistic terms, pain, thirst, and hunger strive toward some end. Thirst strives towards the attainment of water; pain strives toward the abolishment of bodily damage; hunger strives towards the attainment of nourishment. More simply: pain, thirst, and hunger are, at least in some sense, not *purely* passive. We take no stance on whether this is the correct reading of these passages. But here is the good news: such a reading fits comfortably within an imperativist framework. While pain, thirst, and hunger are not something we (literally) *do* on imperativism, they are, by their very nature, the sort of states that *compel us* towards further certain actions, and this is precisely because of their unique biological function. That might count as a sort of activity, and one that we may reasonably view as being a source of trouble for the representationalist.

[26] See Byrne, 2001, for the distinction between restricted and unrestricted intentionalism.

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