

A teleological account of Cartesian sensations?

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Abstract Alison Simmons, in Simmons (1999), argues that Descartes in Meditation Six offered a teleological account of sensory representation. According to Simmons, Descartes' view is that the biological function of sensations explains both why sensations represent *what* they do (i.e., their referential content) and why they represent their objects *the way* they do (i.e., their presentational content). Moreover, Simmons claims that her account has several advantages over other currently available interpretations of Cartesian sensations. In this paper, I argue that Simmons' teleological account cannot be sustained for both theoretical and textual reasons and that it does not have the advantages it is claimed to have.

Keywords Descartes, Sensory representation, Biological function

The proper purpose of the sensory perceptions [...] is simply to inform the mind of what is beneficial or harmful for the composite of which the mind is a part [...].
(Descartes, Meditation Six)

On a common representationalist interpretation, Cartesian sensations are obscure and confused representations of modes of *res extensa* (Alanen, 1994, 2003; Bolton, 1986, 2002; Hoffman, 1996; Schmaltz, 1992, 1997; Wilson, 1990).¹ Some supporters of the representationalist interpretation maintain that Cartesian sensations represent modes of *res extensa* in virtue of being caused by them. I call this representationalist view “the causal account”. (CA).² According to CA, sensations represent the same objects as the clear and distinct ideas of the intellect. However, unlike the latter, sensations represent modes of *res extensa*

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¹ These scholars, however, offer (more or less radically) different explanations of why sensations represent modes of *res extensa*.

² See especially Normore (1986), Schmaltz (1992) and Wilson (1990). As we shall see presently, the label “causal account” refers to a family of different views. I will distinguish two different ways of understanding the causal connection between sensations and the environment that will result in two different versions of CA.

so obscurely that, for example, the idea of cold does not “enable me to tell whether cold is merely the absence of heat or vice versa” (CSM II 30; AT VII 44). One of the intellect’s functions is precisely that of clarifying the confused sensory content so as to reveal its true object.

Over the years, some scholars have suggested that, according to Descartes, the intellect and the senses have radically different roles. Whereas the intellect would have the cognitive task of discovering the true nature of reality sensations would have the biological task of securing the survival of the mind–body union.³ But only recently has this way of reading Descartes been developed into a new way of interpreting Descartes’ account of the representational content of sensations and a criticism of CA. Alison Simmons, in her influential paper “Are Cartesian Sensations Representational?” (Simmons, 1999) argues that rethinking the role of the senses in the above way offers a new insight into Descartes’ explanation of the representationality of sensations. According to Simmons, Descartes’ view is that sensations represent their objects in virtue of the biological function of enabling us to interact with the environment in a health-preserving way. I call her account “the teleological account” (TA).

Although Simmons agrees with CA that sensations are representational, she claims, *contra* CA, that Cartesian sensations represent *different* objects than the intellect. The biological function of the senses brings to the fore that Cartesian sensations represent *ecological properties* of bodies (such as bodily health and damage). The clear and distinct ideas of the intellect represent modes of *res extensa*.⁴ Simmons contends that TA is superior to CA not only because it is textually more accurate but also because it dissolves the problems that CA raises. According to Simmons, CA raises the following problems: (i) it makes sensations redundant; (ii) it makes sensations “materially false;” finally, (iii), because of (ii), CA is incompatible with the non-deceiving nature of God.⁵

In this paper, I argue that TA is untenable for both theoretical and textual reasons. Since Simmons has offered the best (at least so far) defense of this new way of understanding the representationality of Cartesian sensations, I make Simmons (1999) the primary critical target of this paper.⁶ I begin by sketching the outline of what I referred to above as CA (Sect. “A causal account of Cartesian sensations (CA)”). Then I present Simmons’ TA and its alleged advantages (Sect. “Simmons’ teleological account (TA)”). After laying out two different readings of the teleological jargon of Meditation Six (Sect. “Strong and weak readings of the teleological jargon of Meditation Six”), I offer several reasons for doubting that Simmons’ TA is superior to CA (Sects. “Philosophical and interpretative problems for TA” and “Does TA solve problems (i)–(iii) better than CA?”). I conclude by tendering an alternative reading of Cartesian sensations that is a variant of CA. I argue that my view has all the benefits of Simmons’ account (i.e., it solves problems (i)–(iii) above) without having its costs.

³ See, for example, Gueroult (1985), Chs. XV–XVIII, pp. 97–176; MacKenzie (1990); Rorty (1986) (although Rorty focuses primarily on Descartes’ views on the emotions); Hatfield (1998) and, more recently, Hatfield (2003); Alanen (1994) and more recently Alanen (2003), Ch. 5.

⁴ Simmons has defended a more general account of the latent teleology in Descartes’ psycho-physiology in Simmons (2001). In this paper, I will focus my attention on the more specific claim, in Simmons (1999), that Descartes offered a teleological account of sensory *representation* according to which sensory ideas represent what they do (i.e., the ecological properties of actually existing bodies) in virtue of their biological function.

⁵ See Simmons (1999), pp. 353–356. This will become clear in Sect. “Simmons’ teleological account (TA)” below.

⁶ A teleofunctional account of cartesian passions has been recently argued by Sean Greenberg in “Descartes on the Passions: Function, Representation, and Motivation”, unpublished manuscript. Greenberg’s account presupposes, and elaborates on, Simmons’ teleological account of Cartesian sensations.

A causal account of Cartesian sensations (CA)

Descartes' denial of a resemblance relation between sensations and their objects together with claims such as "sensations of tastes, smells, [...] colours and so on [...] do not represent anything outside our thought" (CSM I 219; AT VIII A 35) have suggested to some scholars that Cartesian sensations are not representational. They would merely present subjective states of the mind or *qualia*.⁷ However, it has been argued that lack of resemblance is not sufficient to establish that sensations fail to represent altogether. One alternative suggestion is that—although sensations fail to resemble real properties of bodies—they still represent properties of bodies in virtue of some causal connection with the environment. I call this version of the representationalist interpretation of Cartesian sensations, "CA". Admittedly, CA is far from being a unified theory. And no clear attempt has been made in the literature to clarify the various ways in which a causal relation can be said to account for the representationality of sensation. Since Simmons criticizes CA and I intend to evaluate Simmons' alternative account, I take it upon myself to identify at last two different ways of spelling out the roles of the causal connection between sensations and the environment that lead to two different readings of CA. I will call them below "(NCD)CA" and "(CD)CA."

Let me start with a general characterization of CA:

(CA):

- (i) Sensations represent the *same objects* as the ideas of the intellect (i.e., bodies or modes of *res extensa*). They only differ *in the way* in which they represent them. Sensations represent modes of *res extensa* obscurely and confusedly. The intellect represents them clearly and distinctly. One of the intellect's functions is precisely that of clarifying the confused sensory content so as to reveal its true object.
- (ii) Sensations (obscurely) represent modes of *res extensa in virtue of* their being caused by them.

The strongest evidence for (ii) is to be found in Meditation Six. There Descartes argues for the existence of material things as follows:

- (1) Ideas of sensible objects are produced in me either by myself or by something distinct from myself;
- (2) I myself—as long as I am merely a thinking thing—cannot be the cause of ideas of sensible things because the production of them doesn't require "an intellectual act on my part" (CSM II 55; AT VII 79) and because they are not produced at will;
- (3) So, the cause of ideas of sensible things must be something distinct from me, i.e., either body (or corporeal nature) or God;
- (4) I believe that ideas of sensible things are produced in me by material things;
- (5) If God were producing these ideas in me, then God would be deceiving me;
- (6) God is not a deceiver
- (7) So, ideas of sense are caused in me by material things
- (8) So, material things exist.⁸

Supporters of CA claim that the above argument provides conclusive evidence that, according to Descartes, sensations represent material things because the former are *caused* by the latter.⁹ Two clarifications need to be made at this point in order to fully explain and defend

⁷ See Arbini (1983) and Mackenzie (1990). Malebranche (see Malebranche, 1980) attributed this view to Descartes. I disagree with this interpretation of Descartes but I won't argue against it in the present paper.

⁸ See also CSMK 193; AT III 429 and CSM II 253; AT VII 367.

⁹ For this interpretation see, for example, Schmalz (1992) and (1997); and Garber (1993).

this claim. Some scholars claim that Descartes cannot regard bodies as proper efficient causes. At best Descartes would regard bodies as non-causal occasions of our sensations. It is argued that Descartes cannot hold the view that bodies are efficient causes of sensations because he also maintains that all sensory ideas are innate and because his dualism makes it impossible to apply the causal principle of Meditations Three (according to which a total efficient cause must contain its effect either formally or eminently) to body–mind causation.¹⁰ These issues have received much attention in the literature and tackling them in the proper way here would take us away from the main path.¹¹ Suffice it to say two things here. Clarification of the sense in which Descartes thought that ideas (and especially sensory ideas) are innate to the mind reveals that this sense of innateness is not incompatible with his claims that bodies cause sensations in the mind. According to Descartes, ideas are innate to the mind in the sense that the mind is capable of forming them on occasion of causal encounters with the environment.¹²

One may still object at this point that Descartes may have acknowledged that a causal explanation of sensation is needed but that this acknowledgement does not amount to a causal account of the representationality of sensation. For example, Descartes may have intended bodies to be mere triggering causes of sensory ideas and this view is compatible with maintaining that the mind alone is the efficient cause of the representational content of sensation.¹³ However, Meditation Six rules out this last possibility. In Meditation Six, the phenomenon to be explained is precisely the *representational content* exhibited by sensations. Why, is Descartes asking, do sensations appear to represent something in extra-mental reality? That is, why are sensations “ideas of sensible objects” (CSM II, 55; AT VII 79)? Or why do differences in color sensations, for example, seem to indicate differences in bodies (CSM II 56; AT VII 81)? Descartes’ answer—as Schmaltz (1992) has convincingly argued—is that although bodies cannot be the total efficient causes of the representational content of sensations (since they cannot account for their phenomenological aspect), they are at least their partial causes.¹⁴ This conclusion is confirmed by Descartes’ explicit use of the causal principle of Meditation Three. After ruling out that the cause of sensory ideas is the mind (as pure intellect) Descartes goes on to say: “So the only alternative is that [the cause of the ideas of sensible objects] is in another substance distinct from me—a substance which contains either formally or eminently all the reality that exists objectively in the ideas [...]” (CSM II 55; AT VII 79). Descartes concludes that bodies (rather than God) are the substances that contain formally the reality contained objectively in the sensory ideas are. Since the “reality contained objectively in sensory ideas” in Descartes’ terminology stands for “the object being represented by the idea” and this object is an extra-mental one, it follows that Descartes’ conclusion is that the causal interaction with bodies accounts for the representational content exhibited by sensory ideas (or for the fact that ideas seems to point to a yet unidentified something outside themselves).¹⁵

¹⁰ See on this, for example, Broughton (1986); Radner (1985) and, more recently, Gorham (2002).

¹¹ See on this, for example, Garber (1993); Nadler (1994); and Schmaltz (1992).

¹² See Schmaltz (1997) on this. Also De Rosa (2004a)

¹³ See for example, Rozemond (1999) on this.

¹⁴ See Schmaltz (1992), pp. 46–69 especially. The mistake, argues Schmaltz, is to infer that bodies are non-causal occasions from the fact that they fail to be total efficient causes. (Ibid., p. 43)

¹⁵ The issue of the objective reality of sensory ideas vis-à-vis Descartes’ notion of material falsity is notoriously complicated and I cannot hope to discuss it in full here. However, there is considerable agreement in the literature that although Descartes calls sensations materially false ideas, he does not deny that they have objective reality. See on this, among others, Alanen (1994), Bolton (1986), Schmaltz (1992) and Wilson (1990).

Also one may object that the conclusion that material things cause sensations is inconsistent with other passages where Descartes writes that the mind is active in the production of sensory ideas.¹⁶ For the purposes at hand, suffice it to say that as long as Meditation Six (among other places) provides evidence that according to Descartes the mind is passive in the reception of ideas of sense, Meditation Six also provides evidence that bodies are at least partial efficient causes of sensory ideas. Notice moreover that the proof in Meditation Six leaves open the possibility that the mind—insofar as it is united to the body—may play an active role in the formation of these ideas (given that only the mind as pure intellect is ruled out as a possible cause of sensations). The issue of reconciling Descartes' open acknowledgement of the passivity of the mind in sensation with his claim that the mind is also active in the production of ideas has been discussed in several papers but need not be addressed in the present context.¹⁷ All we need for present purposes is to point out that according to Descartes, bodies are at least partial efficient causes of sensations.

Going back to the textual evidence for CA as the conjunction of (i) and (ii) above, let me show how (i) also is supported by the qualifications that Descartes adds to the above argument in Meditation Six. First of all, although the argument proves that material things exist, (a) material things “may not all exist in a way that exactly corresponds with my sensory grasp of them for in many cases the grasp of the senses is very obscure and confused” (CSM II 55; AT VII 80); the material things represented by sensations, however, “possess all the properties which I clearly and distinctly understand.” (CSM II 55; AT VII 80) Secondly, (b), because of (a), we misuse sensations “by treating them as reliable touchstones for immediate judgments about the essential nature of the bodies located outside us” (CSM II 57–58; AT VII 83) and we should not draw any conclusions from our sensory perceptions of things “until the intellect has examined the matter.” (CSM II 57; AT VII 82) Lastly, (c), it makes sense to withdraw assent to any belief suggested by the senses until the intellect has examined the matter. That is, it makes sense to hold (b) because sensations contain “some truth” (CSM II 56; AT VII 80) and any falsity in my sensory representation of reality “may be corrected by some other faculty [i.e., the intellect] supplied by God.” (CSM II 55–56; AT VII 80)

As anticipated above, there are at least two different ways of spelling out the role of the causal connection between sensations and the environment which result in two different readings of CA. Some scholars attribute to Descartes what I would call a “Non-Content Determining” reading of the causal connection between sensations and bodies ((NCD)CA). According to (NCD)CA, Descartes' view would be that the causal connection between the sensation *S* and its object *O* is a necessary condition for the sensation to represent *something* actually existing outside the mind (i.e., a yet unidentified mode of *res extensa*) but is not sufficient to fix the referent of the sensation.¹⁸ According to a causal theory of content (at least as understood in contemporary terms and by Simmons (1999)), a sensation *S* is about object *O* because *S* is caused by *O* in the right way. In other words, according to a proper causal theory of content, the causal relation between the mind and the environment fixes the referent of the representational state in question.¹⁹ In conclusion, as long as the causal connection in (NCD)CA accounts for why sensory ideas correctly represent (or present) objects to us but does not fix the referent of the ideas, then we cannot regard (NCD)CA as a causal theory of content.

¹⁶ See, for example, CSM I 304; AT VIII B 359.

¹⁷ See Schmalz (1992) and (1997); and Nadler (1994).

¹⁸ See Schmalz (1992).

¹⁹ See, for example, Devitt & Sterelny (1987). Fodor (1987) and Kripke (1980).

However, CA has also been attributed to Descartes along the lines of contemporary causal theories. Some scholars have attributed to Descartes a “Content Determining” reading of the causal connection between sensation and their objects. ((CD)CA) According to (CD)CA then, the causal relation between sensations and the environment fixes the referent of sensory ideas. Margaret Wilson attributed this view to Descartes. For example, in her Wilson (1990), she claimed: “In view of some recent theories of reference and perception, one might hope for a *causal* account of ‘referential’ [. . .] representation: an idea, that is, referentially represents its cause [. . .], whatever that might be. Thus, for my idea of cold referentially to represent a certain physical state is just for that idea to be caused—in the ‘right’ way—by that state, whatever it might be.”²⁰

The difference between (NCD)CA and (CD)CA is as follows. (NCD)CA only claims that sensations—qua obscure and confused presentations—are indeed of something in extra-mental reality because they are caused by something-we-know-what in extra-mental reality. However, (NCD)CA does not tell us what the idea is about and as such (NCD)CA could be complemented with various different theories of how the objects of sensory (re)presentations is fixed. (CD)CA is instead a causal theory of content. It explains why a certain sensation S refers to a certain object O (rather than to others) because it is caused by O “in the right way.” (NCD)CA acknowledges only that a causal story is to be told in the production of sensory ideas. (CD)CA develops this causal story into a causal account of what sensations represent.

Although Simmons does not distinguish between these two different ways of reading CA, Simmons quite clearly intends her teleological account of sensation to criticize and replace CA in the form of (CD)CA above. For she presents the account of sensory content she is criticizing as the view according to which “a sensations represents something in extra-mental reality in virtue of its being caused (in the right way) by it” (Simmons, p. 353). Moreover, Simmons claims (as we shall see presently) that sensations turn out to be materially false on CA because they turn out to represent their correct objects as other than they are. And this claim presupposes a causal theory of content according to which S represents O because it is caused by O in the right way, that is, CA in the form of (CD)CA.²¹ Finally, Simmons takes

²⁰ See Wilson (1990), p. 75. I am leaving aside discussion of the problems that this view generates for Descartes’ epistemology and metaphysics. As an anonymous referee for this journal has pointed out to me, this account of representation would have trouble explaining misrepresentation, the obscurity and confusion of sensations, and Cartesian dualism. Wilson is somewhat aware of these difficulties (See Wilson, 1990, p. 76). I address the problem of how a causal account of representation can explain misrepresentation and material falsity in De Rosa (2004b). This problem is ultimately the reason why I do not believe that CA in the form of (CD)CA above can be attributed to Descartes. However, since—as we shall see presently—Simmons takes (CD)CA to be the theory of sensory representation that she opposes, I assume for the sake of argument that it is a viable position.

²¹ Margaret Wilson in her Wilson (1990) argued that we can explain why Cartesian sensations misrepresent—that is, present their correct objects as other than they are (CSM II 30; AT VII, 44)—because Descartes distinguishes between referential and presentational content. Wilson illustrates the distinction as follows: “Suppose that my mind is in fact an immaterial substance, though [. . .] I can only conceive of my mind as an attribute of my body. Then my idea of my mind [. . .] in one sense [. . .] represents an immaterial substance; in another sense [. . .] it does not represent (to me) an immaterial substance. I introduce the following terms to distinguish the “senses” in question: in the example just given my idea referentially represents an immaterial substance; it presents a bodily attribute” (Wilson, 1990, pp. 73–74). So, the reasoning goes, since sensations referentially represent their true objects independently of how the objects is presentationally represented to the mind; and an internalist theory of content does not allow for that; so, a causal theory must be invoked to explain how a sensation refers to its true objects independently of any descriptive (or presentational) content. All I am saying above is that Simmons goes along with Wilson’s explanation of how a causal theory explains misrepresentation. Arguably, this solution may create more problems than it solves, as I already conceded in footnote 20 above. One of the things we would like to know is: what is the relation between these two kinds of contents so that sensations count as misrepresentations? But all these issues point to difficulties in attributing

Wilson to be the main advocate of the view that she criticizes.²² Since the aim of the present paper is to evaluate Simmons' TA and her criticism of the causal account; and Simmons criticizes CA in the form of (CD)CA, from now on when I talk of CA I mean (CD)CA unless otherwise indicated.

According to Simmons, CA is wrong both philosophically and interpretatively for the following reasons:

- (i) CA makes sensations *redundant* since “they re-represent what intellections already represent (Simmons, 1999, p. 356);
- (ii) Sensations turn out to be “materially false” since, according to CA, sensations represent their causes as other than they are (Simmons, 1999, p. 353);
- (iii) Because of (ii), CA is irreconcilable with the non-deceptive nature of God. After all, if sensations consistently misrepresent corporeal reality and God has endowed us with the sensory faculty, why isn't God a deceiver?

In the next section, I will explain how Simmons proposes to solve problems (i)–(iii) by offering an alternative account of Descartes' views on the representationality of sensations.

Simmons' teleological account (TA)

According to Simmons, Descartes, in Meditation Six, denies that the intellect and the senses are joined in the common cognitive task of discerning the true nature of reality. Rather Descartes claims that “the senses have their own job to do” (Simmons, 1999, p. 354), viz., that of being “conducive to the preservation of the healthy man.” (CSM II 60; AT VII 87) As Simmons puts it, Cartesian sensations have “the biological function of guiding our self-preserving interaction with bodies in local environment” (Simmons 1999, p. 355).

Rethinking the role of the senses this way, argues Simmons, suggests that CA is not the correct interpretation of Descartes' account of the representationality of sensation. Descartes tendered instead a teleological account of sensations (TA), according to which sensations “represent things [...] *in virtue of* the role they play in enabling us to interact with the environment in a self-preserving way” (Simmons, 1999, 357).²³ Accordingly, the biological function of the senses implies that sensations “get their representational hook on the world at the level of ecology not physics” (Simmons 1999, p. 356). Sensations represent, then, primarily *ecological properties* of bodies rather than their mathematical and geometrical properties. And what are these ecological properties? Ecological properties, writes Simmons, are properties that describe to 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” (Simmons, 1999, p. 355). Ecological properties of bodies, then, are *defined* by an element of indexicality: where is this body relative to *my* body? Will this body pose a threat to *me*? Here are some of Simmons' examples of ecological properties represented by sensations: “pains

Footnote 21 continued

to Descartes a purely causal theory of content for sensory ideas. And Simmons and I agree that a causal theory in the form of (CD)CA cannot be attributed to Descartes. We just derive very different conclusions from this, as we shall see in the rest of the paper.

²² Simmons also takes Normore as a supporter of this view with some qualifications. See Simmons (1999), fn 12, p. 365.

²³ Simmons calls her account “bio-functional” in order to bring out the similarities with James Gibson's account of perception. See Gibson (1968). However, since Simmons' account implies that sensations have intrinsic ends, the label “teleological account” seems perfectly adequate to characterize her view.

represent bodily damage, tickles represent bodily health [...] color sensations represent surface differences” (Simmons, 1999, p. 356)²⁴

Simmons finds the strongest support for TA in Meditation Six. For example, after having remarked that God has instituted the one-to-one relation between brain states and sensations that is “most frequently conducive to the preservation of the healthy man,” Descartes explains:

[W]hen 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. 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 [...] But there is nothing else which would have been so conducive to the continued well-being of the body. (CSM II 60–61; AT VII 88)

Simmons makes a lot of mileage out of this passage. According to her, the above passage suggests that the *biological function* of the sensation of pain as occurring in the foot (i.e., that of doing something to get rid of the pain) explains both (a) why the sensation represents its distal cause (i.e., a real injury in the foot) rather than any other of the more proximate causes (i.e., the pineal gland state or some motions in the medium between the distal cause and the sensation); and (b) why it *phenomenally* represents the cause as *pain* rather than as what the cause is really like (Simmons, 1999, p. 357; 2001, p. 56).²⁵ In a nutshell, according to Simmons, the biological function of sensation explains why sensations represent *what* they do (their referential content) and why they represent it *the way* they do (their presentational content).²⁶

A few more words need to be added in order to fully explain (a) above. Simmons’ claim that Descartes endorses (a) in the above passage becomes clear if we look at her interpretation of the passage in relation to one of the advantages she takes TA to have over CA. This advantage would consist in explaining why sensations represent *what* they do—for example, why the sensation of pain as if in the foot usually stands for a real injury in the foot. A purely causal account of representation, according to which a representational state S represents what actually causes it, is threatened by (some variant of) what is known in the current literature as the “disjunction problem”.²⁷ The problem is that since, according to a

²⁴ Notice that although it is clear how bodily damage and health satisfy the above definition of “ecological property” it isn’t clear how surface differences do. In what sense are surface differences *defined* by the well being of my body? I will return to this point in Sect. “Division of labour?” below. Thanks to Martha Bolton for bringing my attention to this problem originally.

²⁵ Notice, in passing, that although (b) is clear enough in the case of sensation of pain and pleasure, it is not clear how it can be applied to color sensations.

²⁶ Along with Margaret Wilson, I (and Simmons, I believe) take “presentational content” in a representational sense. Accordingly, the presentational content of an idea is the way in which the idea presents its intentional object to me (some kind of mode of presentation of the object). So, I deny that for Descartes the presentational content of sensation amounts to the view that sensations present subjective states or qualia to the mind. See Wilson (1990), p. 81. Thanks to an anonymous referee for this journal for pointing out the necessity to clarify this point.

²⁷ See, for example, Fodor (1987), Ch. 4. Strictly speaking the “Disjunction Problem” regards the problem of perceptual error. Since a causal theory claims that a mental token represents what actually caused it and mental tokenings of F can be caused by not-Fs (as in the case when we mentally token COW in front of a horse), a causal theory would have to say that the mental tokening of F is caused by the disjunction of all its actual causes. In so far as Simmons’ point is that if we attribute to Descartes a causal theory of content we cannot

causal theory, a representational state S represents what actually causes it and S is caused by any number of different causes, a causal account of what S represents is bound to fail. Suppose the representational state S is the sensation of pain as if in the foot. Its cause is not only its distal cause—i.e., an actual injury in the foot—but also any other cause in the chain that goes from the distal cause to the sensation—for instance, a pineal gland state. How can a causal theory explain why S represents its distal cause rather than any other cause? Is S representing a disjunction of all these causes? Simmons describes this problem as the failure of a causal theory of isolating “in a principled way the distal cause as the proper *res repraesentata* of a sensation” (Simmons, 1999, p. 353). The advantage of TA is precisely that of giving Descartes this principled reason. “As [Descartes] says”, writes Simmons, “what we most need to know *about* to survive is the usual distal cause. We thus have reason to affirm what phenomenologically seems to be the case, e.g., that color sensations represent to us the surfaces of distal bodies” (Ibid., 361). So, TA explains why color sensation are caused by, and hence represent, the surfaces of actually existing bodies and why the sensation of pain as if in the foot is caused by, and hence represents, a real injury in the foot. Notice that a direct implication of this claim is that the biological function of sensation explains also why sensations are, by and large, veridical.

In conclusion, Simmons’ TA consists of two claims:

- (1) Sensations represent *different* objects than the intellect. Sensations represent the *ecological* properties of the corporeal world. The ideas of the intellect represent the *essential* properties of the corporeal world (viz., they represent bodies *qua* modes of *res extensa*);
- (2) Sensations represent what they do (viz., the ecological properties of actually existing bodies) *in virtue of* their biological function.

Moreover, TA has the following advantages over CA, according to Simmons:

- (i)* Sensations are no longer redundant because they represent something different from what the intellect represents. They have their own task to fulfill and as long as they fulfill it successfully they are flawless;
 - (ii)* Sensations are “materially true”. As long as they “represent the corporeal world [. . .] exactly as they ought to, [. . .] [they are] materially true, i.e., give rise to true judgments” (Simmons, 1999, p. 352–353);
 - (iii)* Because of (ii)* TA is consistent with the non-deceptive nature of God.
- (i)*–(iii)* are the reasons why Simmons regards TA as superior both philosophically and interpretatively to CA. I will argue below that, *pace* Simmons, this is not the case. But before I do that, let me lay out two possible ways of reading the teleological jargon of Meditation Six that emerged from the above discussion of CA and TA.

Strong and weak readings of the teleological jargon of Meditation Six

Given that Meditation Six seems to support both a causal and a teleological reading of the representationality of sensation (Sects. “A causal account of Cartesian sensations (CA)” and “Simmons’ teleological account (TA)” above); and given that it is unlikely that Descartes regarded *both* as explanations of the representationality of sensation, it is worth exploring

Footnote 27 continued

explain which causal chain—among many others—is responsible for the tokening of a certain sensation, I see a parallel between what Fodor calls the “disjunction problem” and the problem raised by Simmons in this context.

the relation in which the causal and teleological elements may stand according to Descartes. There are at least two possible ways of interpreting this relation and I will call them the “strong reading” and the “weak reading.”

Strong reading (SR): Cartesian sensations are caused by (and, hence, represent) their “right” objects *in virtue of* their role of enabling us to navigate the environment in a self-preserving way.

Notice that, according to (SR), the causal connection between a sensation and its right cause is *subordinate* to the biological role of sensation. That is, the fact that a representational state S veridically represents its object (or is caused by its right object) is explained in terms of the biological function of S. So, for example, when Descartes writes that the sensation of pain-as-if-in-the-foot represents an injury in the foot because it is caused by it in normal circumstances, we should define these normal circumstances as those that promote the well being of the mind–body union. Consequently, under (SR), the senses’ *function* of preserving the health of the man explains why it is an injury in the foot that *causes* the sensation of pain-as-if-in-the-foot (see Sect. “Simmons’ teleological account (TA)” above) and, hence, why sensations are by and large veridical.

Alternatively, we can offer a weak reading of the teleological jargon of Meditation Six:

Weak Reading (WR): Cartesian sensations represent their “right” causes in virtue of a causal connection. And their function of promoting the well being of the man *results* from the fact that sensations, by and large, represent their right causes.²⁸

According to (WR), the causal connection between sensations and their right objects is independent of the biological function sensations might serve. The biological function of sensations is just the happy outcome of the fact that sensations are by and large veridical.²⁹

One may propose an alternative way of reading Descartes’ position in Meditation Six (and/or Simmons’ interpretation of it) as the combination of a teleological *and* a causal theory of content.³⁰ Descartes’ view may have been that a causal connection between the sensation S and its object O is a necessary condition for the sensation to represent *something* actually existing outside the mind; but the biological function of S is needed to explain *which* one of all the intervening causes between the distal cause and the sensation is the “right” one. That is, the teleological element is understood as *fixing* the referent of sensations although the latter already represent *something* actually existing in virtue of a causal connection with the environment (and independently of their teleological function).

I believe this is an interesting suggestion. However, in Simmons’ interpretation of Descartes, the *purpose* of sensations explains not only *what* things sensations represent but also why sensations represent *something* actually existing in the first place. Simmons writes that in order to fulfill their biological role sensations must not only *seem to* but also *actually* represent things and *this* is the reason why the senses represent *something* actually existing by being locked into a causal connection with the environment (Simmons, 1999, p. 358). That is, according to Simmons, sensations are locked into a causal connection with the environment because of their biological function. As Simmons puts it, *the level of ecology*

²⁸ Notice that I call this a “weak reading” only in the sense that the causal connection is prior to, and independent of, the teleology of sensations. However, the causal connection here is interpreted along the lines of (CD)CA above.

²⁹ I will defend a (WR) of Meditation Six in more detail in Sect. “A (WR) of the teleological jargon of meditation six” below.

³⁰ I owe this suggestion to Tad Schmaltz.

is “the level at which sensations get their representational hook on the world” (Ibid. 356). So, even if the above suggestion were plausible on its own terms, it would not be an accurate interpretation of Simmons’ account of Cartesian sensations.

In conclusion, Simmons’ TA implies (SR) for otherwise her view would not constitute a reading of the representationality of Cartesian sensations which is a radical alternative to CA. As Simmons puts it, her claim is that “Cartesian sensations represent things in the corporeal world not in virtue of resembling those things as they are in themselves, and not simply in virtue of being caused in the right way by those things, but in virtue of the role they play in enabling us to interact with the world in a self-preserving way” (Simmons, 1999, p. 357). In the next section, I will argue that there are very good reasons to reject (SR) of Meditation Six and hence to resist Simmons’ TA.

Philosophical and interpretative problems for TA

In this section, I will offer five reasons for why I believe that Simmons’ TA cannot be sustained either philosophically or interpretatively. Each reason will occupy a subsection of Sect. “Philosophical and interpretative problems for TA”.

Division of labor?

Simmons assumes that there is a division of labor between the senses and the intellect. This division of labor implies that sensory and intellectual representations refer to “different things” (Simmons, 1999, p. 356). Sensations represent the ecological properties of bodies; intellections represent the geometrical properties of bodies. However, as Simmons herself acknowledges, ecological properties are *instantiated* in bodies as modes of *res extensa* (Simmons, 1999, p. 356). In order to understand Simmons’ view then, it becomes crucial to understand in what sense exactly, according to Simmons, ecological properties are *instantiated* in modifications of *res extensa*. However, no clarification of how we ought to understand the relation of instantiation is provided by Simmons. Is Descartes’ view that ecological properties can be reduced to physical properties? Or is Descartes’ view that ecological properties are realized in physical properties but are something over and above physical properties?³¹ Simmons’ interpretation requires Descartes to hold the latter view. However, it is neither clear that Descartes held this view nor does Simmons make any attempt to defend this view for Descartes.

But let us assume with Simmons that ecological properties are different than, and yet instantiated in, modes of *res extensa*. And let us also assume with her that ecological properties are defined either (i) in relation to *well-being* of the body (Simmons, 1999, p. 355); or (ii) in relation to well-being of the mind-body union (Simmons, 2001, p. 58).

Notice that if Descartes’ view is to be identified with (i) then we have the following problem. Although it is clear how bodily damage and health satisfy the definition of “ecological property” as a property that is defined in terms of the well-being of the body it is not clear how surface differences do. In what sense are surface differences defined by the well-being of my body? Certainly we can say that our ability to perceive differences among the surfaces of objects helps us navigate the environment successfully and, consequently, preserve the well-being of the body. However, the property of being a surface difference

³¹ Thanks to Martha Bolton for bringing this problem to my attention. When I say that ecological properties ought to be “over and above” physical properties I mean that they are different from the latter in the sense that they may be supervenient on, or emergent from, them.

is not defined in terms of the well-being of the body like in the case of bodily health and damage. So minimally, we would need some clarification of the difference between ecological properties such as “bodily health” and “being a surface difference”. But Simmons provides no such explanation.³²

And if Descartes’ view is to be identified with (ii) above, then sensations would be representing *properties-of-the-world-with-respect-to-the-survival-of-the-mind-body-union*. But are there any such properties, according to Descartes? If there are, these properties are something distinct from the properties of the mind (as distinct from the body) and the properties of the body (as distinct from the mind). That is, (ii) seems to imply that ecological properties are properties of a third kind of substance, i.e., the mind–body union. But since it is not clear whether Descartes thought of the mind–body union as a third substance, a supporter of TA ought to either defend this interpretation of Descartes’ view on mind–body union or explain how (ii) above doesn’t imply this reading of the mind–body union. But I cannot find any such clarification in either Simmons (1999) or (2001).³³

In response to my last point, one may suggest that interpreting ecological properties as relational properties may rescue Simmons’ claim that ecological properties are something over and above physical properties without committing Descartes to the problematic view that the mind–body union constitutes an independent third substance. A relational property is a property a thing has in virtue of being in relation to something else. One possible way of interpreting ecological properties as relational properties is to say that the former are properties of bodies as they appear to us (as conjunctions of mind and body) as opposed to as they are in themselves (i.e., modes of *res extensa*). So, for example, bodies’ interaction with our body causes the perception of redness in virtue of the mind’s connection with the human body. The property of redness as it appears to us (i.e., the phenomenal red) is a mode of the mind–body union. The property of redness as a certain configuration of particles is a mode of *res extensa*. And this distinction would explain why ecological properties (such as the phenomenal red) are something over and above physical properties without postulating the existence of a third substance.³⁴

Unfortunately, I don’t think this suggestion solves the problems raised above. First, if sensations represent what they do in virtue of promoting the survival of the union (as TA implies), ecological properties ought to be defined not simply in relation to the mind–body union but in relation to the *well-being* of the mind–body union. That is, according to TA, sensations represent what they do and present it to the mind (phenomenologically) the way they do in order to promote the survival of the mind–body union. But although it is clear how the representation of an injury in the foot *as pain* fits this definition it is not clear how the representation of a bodily surface *as red* does also (and the examples could be multiplied). Second, one may agree that the phenomenal red is caused by a mode of *res extensa* (some

³² It has been pointed out to me by an anonymous referee for this journal that the fact that ecological properties promote our well-being does not necessarily imply that they ought to be defined in relation to our well-being. However, Simmons puts a lot of emphasis on the fact that ecological properties *differ* from the essential properties of bodies precisely because they are properties of things in relation to the *well-being* of the mind–body union. See especially Simmons (1999), pp. 355–356.

³³ Despite some passages where Descartes does seem to suggest that the mind and body are co-extensive and intermingle (for example, CSM II 56; AT VII 81; CSMK 226–229; AT III 690–695) it is not clear—and it is a matter of scholarly dispute—whether Descartes really held this view as opposed to the view that mind and body merely co-exist. See on this Wilson (1978), Ch. 6, for example. I do not mean to suggest that Simmons explicitly endorses the former reading rather than the latter. On the contrary, she is very careful not to commit herself to either view of the mind–body union. However, this may be part of the problem. A full defense of her view seems to require a clarification of what the mind–body union is.

³⁴ I owe this suggestion to Sean Greenberg.

particular configuration of particles) in virtue of the connection between the mind and the human body. In fact, according to Descartes, the sensation of red is nothing but the obscure and confused representation of the particular configuration of particles that caused the sensation. But notice that this is compatible with the view—held by CA—that sensations and the intellect represent the same thing just in two distinct ways. The senses represent modes of *res extensa* obscurely and confusedly; the intellect represents modes of *res extensa* clearly and distinctly. Third, the view that ecological properties are properties of bodies as they appear to us (as conjunctions of mind and body) simply boils down to the view that according to Descartes modes of the mind (whether or not in connection with the human body) are irreducible to modes of body. Nobody would deny that this is Descartes' view but nobody would say that this amounts to a definition of ecological property either. I conclude then the notion of phenomenal property is insufficient to explain the notion of ecological property.

But there is a different way to interpret ecological properties as relational properties that avoids relating bodies to us and hence the above problems. It could be suggested that ecological properties are properties *a thing has in virtue of the relation between its physical properties and the physical properties of our own body*. For example, the property of being digestible is a function of the relation between the physical properties of the food and the physical properties of my body according to some physical laws. So, the suggestion is that ecological properties are *physical relational* properties.³⁵ Accordingly, sensations would represent properties that are different from modes of *res extensa* (for example, the property of being digestible) even if ultimately ecological properties are modes of *res extensa*. This is the most charitable reading of ecological properties offered in behalf of Simmons and it might in the end be the best interpretation of what she ought to say. However, if this were what Simmons has in mind she would have to defend this reading of ecological properties in the context of Descartes' metaphysics especially in light of her additional claim that ecological properties ought to be defined in relation to the *well-being* of the mind–body union (Simmons, 1999, pp. 355–356). So, at the very least, Simmons owes us some further explanation of ecological properties. Interpretation of their metaphysics should not be left to the reader.

A possible way out of all these problems would be for Simmons to say that sensations and the intellect represent different things in the following way. Sensations could be taken to represent *modes of the mind* whereas the ideas of the intellect represent modes of *res extensa*.³⁶ Although this is a possible way of spelling out the distinction between the senses and the intellect, it is most certainly not the way in which Simmons intends to spell out the distinction.³⁷

Finally, if specifying the nature of the relation between ecological properties and physical properties is the source of all troubles one could try to defend Simmons by suggesting that we weaken the distinction between the things the senses and the intellect represent. After all, one may remark, Simmons herself at times acknowledges that sensations and intellections

³⁵ Thanks to an anonymous referee for this journal for this suggestion.

³⁶ For this interpretation see Nelson (1996). I thank an anonymous referee for this journal for bringing this possibility to my attention.

³⁷ Although Simmons never even discusses this possibility, the reason why she doesn't is quite clear. Sensations could not fulfill their biological function if they weren't representations of bodies. Likewise, Simmons rejects without argument the view that sensations may fail to be representational altogether. She simply assumes that sensations are representational and that they represent modes of *res extensa* (or ecological properties instantiated in modes of *res extensa*). Failing to address these alternative ways of interpreting Descartes' views on sensation may be a shortcoming on her part but, in her defense, she could not have tackled all these issues in the same paper. And in as far as my paper is a criticism of Simmons, I go along with the assumptions in this paper.

“represent different aspects of the same thing (in the corporeal world) to different ends” (Simmons, 1999, p. 356). But wouldn’t representing the same objects in different ways be enough for Simmons’ purposes (for example, in order to support the claim that sensations are materially true ideas?)³⁸ I believe the claim that the senses and the intellect represent the same objects in different ways would not be sufficient for Simmons’ purposes. As she puts it, the “Cartesian distinction between intellect and senses [. . .] is not a distinction between a faculty that represent [. . .] well and one that represent poorly, but a distinction between faculties that represent different things” (Simmons, 1999, p. 356). That is, Simmons clarifies here that the difference between what the senses and the intellect represent is not a difference at the presentational level (in the ways in which they present things) but at the referential level (in what things they represent). So, the distinction between *the things* represented by sensations and intellections is central to the view. Only if this distinction can be sharply drawn, can we say that sensations are materially true and God is not a deceiver—and hence that TA has advantages over CA. Once the distinction is gone, so are the advantages of TA.

Teleology and truth?

Notice that a teleological account of *representation* shifts the focus of attention on its securing the survival of the body rather than on its truth.³⁹ But then, on this view, it is possible to have a set of false beliefs that promote the well being of the body as well as a set of true ones. And so there is the risk that truth may be *severed from* the biological function rather than *being understood* in its terms. For example, we can imagine cognitive mechanisms that guarantee survival by systematically delivering false beliefs (as in the case when truths are too awful to bear). Notice that this objection is particularly threatening given that, according to Simmons, the biological function of sensations guarantees their veridicality (see Sect. “Simmons’ teleological account (TA)” above).

The criticism is intended as a *reductio* of Simmons’ view. TA is supposed to provide a better explanation of the veridicality of sensation because the biological function of, for example, the sensation of pain in the foot guarantees that the sensation is caused by (and, hence, represents) an injury in the foot. However, once representation and truth are interpreted in terms of their function the possibility of cognitive mechanisms that systematically deliver false beliefs is left open and with it the possibility that truth may be severed from the biological function (*contra* the original hypothesis).⁴⁰

One may object that this criticism presupposes a certain conception of *representation* as a mind-world relation and *truth* as correspondence between mental states and states of affair. Once these notions are revisited in terms of the conditions under which the biological function is fulfilled, the above criticism is dissolved. But *Descartes* certainly didn’t hold a functionalist theory of representational content and truth. Representationality is the property ideas have to cognitively present *the world* to us. Truth and representation, falsity and misrepresentation are explained primarily in terms of correspondence, or lack of correspondence,

³⁸ Thanks to Michael Della Rocca for this point.

³⁹ Simmons suggests a reinterpretation of the Cartesian notions of representation and misrepresentations in terms of function and malfunction, for example, in Simmons (1999), p. 367, fn 26.

⁴⁰ Notice that the possibility of cognitive mechanisms delivering false beliefs is introduced by the very understanding of truth and representation in terms of their biological function rather than being the result of imagining radical skeptical scenarios.

with reality (rather than in terms of function).⁴¹ Understanding truth and representation in terms of their purposedness and ends is as foreign to Descartes' way of thinking as it was any explanation of natural phenomena in terms of their *τέλος*. And the strongest evidence for this is precisely Descartes' claim—*contra* Simmons' revision of Descartes—that sensory ideas are materially *false* ideas, i.e., ideas that are “referred to something other than that of which [they are] in fact the idea[s].” (CSM II 163; AT VII 233)

Finally, there is a way in which Simmons could argue that the imagined scenario of a cognitive mechanism promoting survival and delivering false beliefs is impossible. Given that the function is selected in order to promote survival and false representations do not promote survival there is no risk of severing truth from the biological function. However, notice that this response assumes that in order to select what sensations would better serve the function of securing survival we should already know what sensations represent (or whether they are true or false). But if this is the case, then a teleological account of sensations would presuppose (rather than provide) an account of the representationality of sensations. I will discuss this problem in more detail in Sect. “Presupposing an account of sensory content” below.⁴²

Presupposing an account of sensory content

A teleological account of sensation *presupposes* rather than provide an account of sensory content. In order to say what conditions would *normally* make a sensation beneficial we would have to know what the sensation is *about*. So, specification of the normal circumstances in which a sensation is beneficial would presuppose *having* a theory of content and this defies the whole project of explaining content on the basis of what is beneficial to us. According to Simmons, the teleology of sensation determines the normal circumstances that fix the referent (or distal cause) of the sensory representation. So, for example, in normal circumstances the sensation of pain-as-if-in-the-foot is caused by a real damage in the foot because this is the most advantageous scenario for the survival of the mind–body union. However, in order to specify the normal circumstances under which a representational state would be beneficial to the mind–body union we would have to know first what the representational state is about. And so specification of the normal circumstances in which a sensation is beneficial would *presuppose* a theory of content.⁴³

This problem seems to surface in some passages of Simmons (1999). For example, after explaining that, according to Descartes, the selected sensation is the one that “does the best job of informing us about the behaviorally salient aspects of the corporeal world” (Simmons, 1999, p. 357), Simmons clarifies that the teleological account would not make any sense if sensations only *seemed* to represent something:

⁴¹ For evidence that Descartes intended representation and truth primarily as a mind–world relation, see, for example, CSM II 26; AT VII 37; CSM II 54; AT VII 78; CSM II 193–201; AT VII 277–288; CSM II 249–252; AT VII 361–365.

⁴² A second possible objection is that the scenario imagined above would be ruled out by Descartes on the grounds that this isn't the best system God could devise. But notice that if according to TA sensations are “true” as long as they promote survival then a God who provides us with sensations that promote survival (even if these sensations are “strictly speaking” false) would indeed be devising the best system (maybe true sensations would not be promoting survival equally well). A supporter of TA could rejoin that the God who devises this system would nonetheless be a deceiver. However, this rejoinder betrays the intuition that truth is understood independently of the biological function—that is, in terms of correspondence with matters of fact. But this is what a biological account denies. And so, a supporter of TA isn't entitled to the above rejoinder. Thanks to Sean Greenberg for making this objection in a private exchange.

⁴³ On this point see Fodor (1993), Ch. 4.

Descartes' claim that some sensation-types are more suitable than others suggests a commitment to the view that they come with at least some world-directed content phenomenally built-in [...]. Seeming to represent the world, however, is not enough. Sensations *actually* represent the world in virtue of the fact that on top of seeming to represent it, they are locked into a causal and ecological system in which they help the mind–body union to interact appropriately with the world (Simmons, 1999, p. 358)

Sensations, Simmons remarks, must *actually* represent something (*on top of seeming to represent it*) in order to serve their purpose. Although Simmons' view ought to be (and clearly is in some passages) that the *biological function* guarantees that sensations are locked into a causal connection with the environment (and hence *actually* represent), the above passage is ambiguous on this issue. It is possible to read Simmons' above claim as (willy-nilly) implying that a *causal* connection with the right object guarantees that the sensation represents an actually existing object and (ultimately) explains its promoting the survival of the mind–body union.⁴⁴ And the example Simmons uses to illustrate the point made in the above passage seems to confirm this worry. If an angel were given pain sensations, writes Simmons, “those sensations might seem to the angel to represent something harmful going on in the foot, but since those sensations are not part of a causal system that begins with bodily damage and ends with body-preserving action, they cannot be said to be genuine representations of anything bodily at all” (Simmons, 1999, p. 367, fn 22). Again it is not clear in this passage whether Simmons intends the causal connection between sensations and their right objects to be prior *or* subordinate to their biological function. TA requires that the causal connection be subordinate to the biological function of sensation. But Simmons leaves open the possibility that the former might be independent of the latter. And this fact confirms the suspicion that TA *presupposes* a theory of the representationality of sensations.

One may try to dissolve the problem I raised above by providing an alternative reading of the passage from Simmons (1999) quoted above. One may say, for example, that Simmons' claim is only that the presentational content carried by sensations (the representation of something *as beneficial*, for example) cannot be *reduced* to a causal relation, although this relation is a necessary condition for representation.⁴⁵ But notice that this way of reading the passage is totally compatible with a causal theory of sensory representation. The representational relation *may be* reducible to the causal (in the sense that there wouldn't be any representations if there were no causal connections between ideas and their right objects) but the *purpose* that this representation serves is not *itself* reducible to the causal relation. Purposedness need not enter the representationality of sensation; it is only parasitic on it. But this alternative way of reading the passage from Simmons (1999) doesn't help Simmons' case much since it would collapse the reading of the teleological jargon of Meditation Six into (WR).⁴⁶

⁴⁴ Notice also that Simmons in the above passage cannot simply mean that the causal connection is necessary for the sensations to represent *something* actually existing. Since this causal connection is supposed to guarantee that the mind–body union interacts *appropriately* with the environment, the causal connection must guarantee that sensations are connected with their right objects.

⁴⁵ For example, an injury in the foot gives rise to *the sensation of pain as if in the foot* (that is, the mind represents the injury *as* pain) because that's the best way to get the mind-union to do something to secure the survival of the body. But what guarantees that the sensation of pain as if in the foot is caused by an injury in the foot is a *causal connection*.

⁴⁶ In Simmons (2001), Simmons claims that “the teleology at work in Descartes' account of sensation [...] complements [...] his causal explanation of sensation” (Simmons, 2001, p. 64, emphasis added). I am not sure whether Simmons, in this more recent article, intended to support or revise her former views. However,

In conclusion neither reading of the passage from Simmons (1999) quoted above rescues TA from the accusation of simply presupposing, rather than providing, a theory of the representationality of sensation.

A (WR) of the teleological jargon of Meditation Six

I now turn to the analysis of the Cartesian text that provides the best support for Simmons' TA, i.e., Meditation Six. In my view, all Descartes claims in Meditation Six is that the *information* carried by sensations (and obtained through a causal connection with the environment) can be *used* by the mind–body union to avoid what's harmful and seek out what's beneficial.

Descartes opens the discussion of sensation by claiming that “there is no doubt that everything that I am taught by nature [read: the mind–body union] contains *some* truth (*et sane non dubium est quin ea omnia quae doceor a nature aliquid hebeant veritatis*)” (CSM II 56, my emphasis; AT VII 80). Notice that the expression *aliquid veritatis* (some truth) suggests that the senses provide a *partially correct representation* of things.⁴⁷ And their representation is *partially* correct because sensations do represent existing things (as we assume uncritically) although they misrepresent them (since sensations do not resemble the properties they represent).⁴⁸ Further down, Descartes is quite explicit about what is the *partial* truth the senses convey:

[. . .] although I feel heat when I go near a fire and feel pain when I go too near, there is no convincing argument for supposing there is something in the fire which resembles the heat [. . .]. There is simply reason to suppose that there is *something* in the fire, *whatever it may eventually turn out to be, which produces in us* the feelings of heat and pain.” (CSM II 57, emphasis added; AT VII 83)

So, according to Descartes, *first* sensations teach us that there are bodies existing in our vicinity. For example, from the fact that we perceive a variety of colors, smells, tastes, shapes and so on, we can infer that “the bodies which are the source of the various sensory perceptions possess differences corresponding to them, though perhaps not resembling them.” (CSM II, 56; AT VII 81) And *then* he adds: “Also (*Atque*) the fact that some of the perceptions are agreeable to me while others are disagreeable makes it quite certain that my body [. . .] can be affected by various beneficial or harmful bodies which surround it.” (Ibid.) The “*atque*” suggests that the *information about*, or representation of, bodies *carried by* sensations can *moreover* (“*atque*”) be *used* to seek out or avoid the objects that are, respectively, beneficial or harmful to the man. Needless to say, these objects couldn't be pursued or avoided unless they were *already* represented.

There is, however, the passage where Descartes writes that “the *proper purpose* of sensory perceptions [. . .] is simply to inform the mind of what is beneficial or harmful for the

Footnote 46 continued

Simmons (2001) cannot be used to support Simmons (1999) because the views advanced in the latter are more radical, and more specifically directed towards an account of the *representationality* of sensation, than the ones presented in the former.

⁴⁷ What Descartes means here is that sensations provide us with some information about the location and shape of bodies, that is, with information about their primary qualities. The question of whether this information is provided by *sensations* of primary qualities (co-occurring with sensations of secondary qualities) or by the *intellectual ideas* of extension and shape implicitly used in sensory perception is a question that I cannot investigate here.

⁴⁸ Notice, incidentally, that if Simmons were right, Descartes shouldn't have written that sensations contain *some* truth; he should have said that sensations (as Simmons suggests) are “materially true” since they fulfill the purpose for which they were bestowed on us (viz., they secure the survival of the mind–body union).

composite. But [we] *misuse* them by treating them as reliable touchstones for immediate judgments about the essential natures of the bodies located outside us” (CSM II 57–58, emphasis added; AT VII 83). This passage provides the strongest support for Simmons’ interpretation since it suggests that the senses are designed to secure the survival of the mind–body union and, hence, that they represent what they do in virtue of their biological function. But I believe this reading of the text is too stretchy.

Claiming that the proper purpose of the senses is to inform the mind of what’s beneficial or harmful to the mind–body union isn’t necessarily equivalent to claiming that sensations represent what they do in virtue of their biological function. Fulfillment of this purpose is compatible with an alternative account of what makes sensations represent what they do. So when Descartes writes that “the proper purpose of the senses is to inform the mind of what is beneficial or harmful to the composite” he may be just repeating what he had already said earlier, namely, that the senses represent existing bodies around us and *because of this* their *proper* purpose (*as opposed to* the purpose of discovering the true nature of reality) is to promote the man’s well-being. Accordingly, we would be misusing sensations by treating them as reliable indicators of the true essence of bodies.

But one may still raise the following concern regarding my reading of Meditation Six. Certainly, the objection goes, the composite makes use of sensations quite automatically or unconsciously. And this fact suggests that the biological function is built into sensations and so some kind of natural teleology is reintroduced.⁴⁹

In order to answer this objection we need to make a distinction between two rather different claims. The first claim is that *sensations serve the biological function of preserving the health of the composite*. The second claim is that *sensations represent what they do in virtue of the biological function of preserving the health of the composite*. It is undeniable that Descartes endorsed the first claim. But the finality of sensation may simply be parasitic on the fact that sensations represent what they do quite independently of their purpose. In fact, it may be the case that sensations give rise quite automatically to behavior that promotes the survival of the mind–body union *because* they are by and large veridical. Notice that Descartes in Meditation Six does seem to suggest this when he writes that “I am taught by nature that various objects exist in the vicinity of my body *and* that some of these are to be sought out and others to be avoided” (CSM II 56; AT VII 81); and that “My nature [. . .] does indeed teach me to avoid what *induces* a feeling of pain and seek out what induces feelings of pleasure.” (CSM II 57; AT VII 82) Both passages suggest that, according to Descartes, sensations represent objects *first* in a non-evaluative way; and *then* such representations *induce* feelings of pain, desire, repulsion, fear. It is in virtue of what they represent that they are naturally used to seek out what’s beneficial and avoid what’s harmful.

In conclusion, it is possible to acknowledge that, according to Descartes, the composite makes use of sensations to seek out what’s beneficial and avoid what’s harmful automatically without attributing to Descartes the view that sensations represent what they do in virtue of their biological role. But it is this latter attribution that is the *primary* critical target of this paper.

Does TA solve problems (i)–(iii) better than CA?

In this final section I argue, *contra* Simmons, that TA doesn’t have the advantage of solving problems (i)–(iii) over CA (see Sect. “A causal account of Cartesian sensations (CA)”). In

⁴⁹ This objection was raised in different contexts by Lilli Alanen and Sean Greenberg.

particular, I will contend that Simmons' TA doesn't solve problems (ii) and (iii) and it is not obvious that has a better answer to (i) than CA.

Since on Simmons' account sensations are materially true, the main advantage of her account over CA is the acquittal of God from the accusation of being a deceiver. That is, Simmons' account dissolves problem (iii) by dissolving (ii). However, *pace* Simmons, there are at least two reasons why sensations *misrepresent* their objects even under TA. First, Simmons acknowledges that sensations represent modes of *res extensa indirectly* by way of representing the ecological properties of the corporeal world and that these ecological properties are instantiated in modes of *res extensa*. Consequently, willy-nilly, Simmons must also acknowledge that the senses and the intellect do represent the *same thing*. But if this is the case, then the senses do misrepresent their objects since they present them to the mind as other than they truly are and hence, provide the potential for a mistaken judgment. And this is what Descartes means by calling sensations "materially false." (See, for example, CSM II 163; AT VII 232–233)

One may acknowledge this difficulty but add, in defense of Simmons, that on TA misrepresentation is a much more limited phenomenon than on CA. Simmons herself (although only in a footnote) illustrates this point as follows: "Compare a sensation of a ripe banana as yellow with a sensation of an unripe banana as yellow [...]. Both of these sensations represent banana surfaces as other than they corporeally are, but only the sensation of the ripe bananas as yellow conduces to self-preservation."⁵⁰ According to CA, both sensations are misrepresentations; according to TA only one is. This is an interesting point. However, I am not sure that saying that on TA misrepresentation is a much more limited phenomenon is enough to support Simmons' claim that sensations are materially true, i.e., they are not misrepresentations altogether. Besides, even on CA the sensation of an unripe banana as yellow would count as "more false" than the sensation of a ripe banana as yellow.

Second, on a teleological account we can still have cases where the system is functioning well and yet sensations misrepresent their objects. Simmons suggests reinterpreting the notions of representation and misrepresentation in terms of function and malfunction. Accordingly, on TA, the sensory system is functioning well when the sensation of pain-as-if-in-the-foot is caused by an actual injury in the foot because these are the circumstances that promote the survival of the mind–body union. However, the sensory system is malfunctioning if the sensation-of-pain-as-if-in-the-foot is caused by some motions in the nerves other than in the foot (as in the case of amputees) because these circumstances will not necessarily promote a health-preserving behavior. However, Descartes points out that in cases when one has a sensation of pain-as-if-in-the-foot after one's foot has been amputated the system is *not malfunctioning*. Yet we still want to say that, in this case, the sensation of pain in the foot misrepresents its object. In conclusion, even under TA, sensations are not always materially true (i.e., they may not represent the ecological properties that are supposed to represent) and consequently can give rise to erroneous judgments.

Notice, moreover, that if what the sensation represents is determined by its biological function; and the sensory system *functions equally well* both when the sensation of pain in the foot is caused by an injury in the foot and when the sensation of pain in the foot is caused by anything other than its distal cause (as in the case of the amputee); it follows that the notion of function is unable to fix which one among the various possible causes of a sensation is the correct one (*contra* Simmons' claim that this is a clear advantage of her TA over CA (See Sect. "Strong and weak readings of the teleological jargon of Meditation Six" above)). One could invoke a distinction between ideal and non-ideal circumstances to distinguish between

⁵⁰ See Simmons (1999) p. 367, fn 26.

cases when the system functions well and cases when it doesn't. For example, one may say that a system is functioning well when, in ideal circumstances, it is attaining the goal of its function. In these ideal circumstances the sensation would indeed represent the distal cause. But it is not functioning well when, in non-ideal circumstances, the sensation represents the proximal cause. Notice, however, that although this distinction would rescue Simmons from the above criticism, it would still leave her with the problem of specifying the ideal circumstances in a way that does not already presuppose that the referent of the sensation is the distal cause (See Sect. "Presupposing an account of sensory content" above).

Moreover there is an independent reason for doubting that TA solves the "disjunction problem" (see Sect. "Strong and weak readings of the teleological Jargon of Meditation Six" above). Consider the sensation of pain as if in the foot. It is normally caused by its distal cause, that is, an injury in the foot. However, this sensation is also caused by intermediate causes such as movements in the nerves and pineal gland states. According to TA, the sensations of pain as if in the foot represents an injury in the foot rather than the other causes because the biological function of the sensation is to promote survival and only the causal connection between the sensations of pain as if in the foot and the injury in the foot guarantees survival. But in order for the sensation of pain as if in the foot to be causally connected with the distal cause it must also be connected with all the other intermediate causes. So, why doesn't the sensation of pain as if in the foot run the risk of representing a disjunction of causes even under TA?

In order to dismiss my criticism that on TA we can still have cases where the system is functioning well and yet sensations misrepresent their objects, one may reply that according to Descartes, the system is *indeed malfunctioning* when one has a sensation of pain-as-if-in-the-foot after one's foot has been amputated. In Meditation Six, one may continue, Descartes argues that (in the case of amputees) the system is still functioning well with respect to the body but *malfunctioning* with respect to the mind–body union. This objection is based on Descartes' distinction between two senses of "nature". As Simmons points out, Descartes distinguishes between (1) a sense of "nature" which takes into account the physical laws governing the human body seen as a "kind of machine" (CSM II 58 AT VII 84); and (2) a teleological sense of "nature" that takes into consideration the *purpose* of a certain physiological state with respect to the mind–body union (CSM II 58; AT VII 85).⁵¹ Accordingly, when we say of someone suffering from dropsy that her nature is disordered we may be making two statements differing in truth-value depending on what sense of "nature" we have in mind. If we are taking "nature" in sense (1) above, we are making a statement that does *not* correspond to matters of fact because no physical law is violated in the case of someone suffering from dropsy. But if we are taking "nature" in sense (2) above, so the objection goes, we are making a statement that corresponds to matters of fact. And so, in cases when one has a sensation of pain-as-if-in-the-foot after one's foot has been amputated the system is *indeed malfunctioning* (*contra* my above claim).

Now the successfulness of this rejoinder depends on how we read the passages in Meditation Six where Descartes distinguishes between these two senses of "nature". The immediate context is the discussion of how to relieve God from the accusation of being a deceiver in the dropsy case and the like. We may say, suggests Descartes, that the nature of the patient suffering from dropsy is *disordered*. But that would not acquit God from the accusation of being a deceiver since "a sick man is no less one of God's creatures than a healthy one." (CSM II 58; AT VII 84) So the question arises of whether her nature is really "disordered". If we consider "nature" with respect to the mind–body union and, hence, consider the purpose

⁵¹ See Simmons (2001), 58–59.

of sensations within the life of man, Descartes writes, we can say that the nature of the patient suffering from dropsy is disordered (CSM II 58; AT VII 85). However, comments Descartes, “nature” in this sense (i.e., the teleological sense) “*is simply a label which depends on my thought; it is quite extraneous to the things to which it is applied.*” (CSM II 59; AT VII 85) So, if I am reading the text correctly, according to Descartes, when we are taking “nature” in the teleological sense we are not making a statement that *corresponds to matters of fact* when we say that the nature of someone suffering from dropsy is disordered.

However, one may rejoin that this reading isn’t correct because it doesn’t take into consideration the passage that follows Descartes’ distinction between a physical and teleological sense of nature:⁵²

When we say, then, with respect to the body suffering from dropsy that it has a disordered nature [. . .], the term ‘nature’ is here used merely as an extraneous label. However, with respect to the composite [. . .] what is involved is not a mere label, but a true error of nature. (CSM II 59; AT VII 85)

According to Simmons, this passage clarifies in no uncertain terms “that the second sense of the term “nature” (the teleological one) is a mere label *when attributed to the body* of the dropsy patient [. . .] But [it] is not a mere label when attributed to the mind–body union.” (Simmons, 2001, p. 58, original emphasis) In other words, according to Simmons, here Descartes would be making a further distinction within the teleological sense of nature (i.e., (2) above) as follows: (2)’ a teleological sense of nature with respect to the body; and (2)'' a teleological sense of nature with respect to the mind–body union. And only (2)’ would be a mere label that doesn’t correspond to matter of fact.

However, I disagree with Simmons’ interpretation. I believe that when Descartes first introduces the teleological sense of nature and writes that nature in this sense is “a pure label that depends on my thought” he is *already* considering the teleological sense of nature *with respect to the mind–body union*. I have two reasons for maintaining this. First, when Descartes introduces the teleological sense of nature he is contrasting it with the sense of “nature” that refers to the body as a machine with “no mind in it” (CSM II 58; AT VII 84). So the contrast itself suggests that the teleological sense of nature regards “nature” as referring to the body united with the mind. Second, Descartes writes that the nature of the dropsy patient is disordered because “it [. . .] is deviating from its nature if the throat is dry at a time when drinking is not beneficial to its continued health.” (CSM II 58; AT VII 85) The reference here to the state of health suggests that Descartes is talking about the body in conjunction with the mind. One may disagree and say that here Descartes is only talking of the body in a teleological sense. However, I wonder, isn’t only in reference with the mind (for example, as the house of the body) that the body can be said to be healthy or unhealthy?⁵³

In conclusion, for all the reasons offered above Simmons’ account doesn’t dissolve problems (ii) and (iii) since even on her account sensations misrepresent their objects. Moreover, it is not obvious that TA fares any better than CA in solving problem (i). Even according to CA sensations have their own job to do, *viz.*, that of informing us of the existence of external objects around us (a job that is unclear whether the intellect could do equally well). And as long as they do this job successfully, they are neither redundant nor flawed. They do carry some truth, as Descartes writes.

To recapitulate. In Sect. “Philosophical and interpretative problems for TA” above I argued that the costs of providing a (SR) of the teleological jargon of Meditation Six—and hence of

⁵² Simmons, in Simmons (2001), p. 58, makes this remark in replying to a different objection to her view.

⁵³ Simmons only skirts this issue. See Simmons (2001), p. 55.

defending TA—are too high to be negotiated for the benefits TA claims to have. Besides, it is not even clear that a teleological account does have those benefits (Sect. “Does TA solve problems (i)–(iii) better than CA?”). In the rest of the paper, I briefly tender an alternative reading of Cartesian sensations. This reading shares some essential features with CA. I argue that this account solves problems (i)–(iii) without having the high costs of Simmons’ account.

An alternative account

In this final section, I sketch the outline of an alternative reading of Descartes’ account of the representationality of sensation. I agree with the proponents of CA that the argument for the existence of material things in Meditation Six suggests that some sort of causal connection with the environment explains why sensations carry information about actually existing objects. For example, the sensation of red represents the property of being red because (given the non-deceiving nature of God) it is caused by encounters with instances of that property.⁵⁴

However, Descartes also clarifies that the sensation of red *misrepresents* the property of being red because it presents it to the mind as something resembling the sensation. Consequently, although a causal connection with the environment explains why the sensation represents something existing outside the mind it is not sufficient to fix the referent of the sensation. It is the intellect’s job to fix the referent of sensations by clarifying the sensory content. And this is why Descartes writes, for example, that our sensation of heat when we go near the fire allows us to infer that there is something in the fire “whatever it may eventually turn out to be, which produces in us the feeling of heat” (CSM II 57; AT VII 83); but also that we should wait for the intellect to reveal to us what the object of the sensation is really like (CSM II 57; AT VII 82). After all, Descartes acknowledges that sensations contain *some* truth (i.e., they inform us about different existing objects around us) and claims that any falsity contained in the information carried by the senses can be “corrected by some other faculty supplied by God [i.e., the intellect].” (CSM II 56; AT VII 80) In conclusion, according to my reading, Descartes’ view is that a causal story is necessary to explain why sensory ideas represent their true objects obscurely (i.e., as other than they truly are) but it does not provide an *exhaustive* account of the representational content of sensory ideas. “Representation is really *presentation*” for Descartes, as Chappell has pointed out.⁵⁵ And in the end what determines the true objects of ideas of sense are the clear and distinct ideas of the intellect.⁵⁶ In fact, it is a Cartesian doctrine that the content of experience can be clarified

⁵⁴ An anonymous referee for this journal has pointed out to me that it would seem that it is God’s benevolence (rather than a relation of efficient causation) that explains why the sensation of red corresponds to the *property of being red*. However, I take Descartes as merely suggesting in Meditation Six that God had preordained things in the world so that ideas of sense are indeed caused (by and large) by their right objects. This reading of Meditation Six does not contradict my claim that what explains the relation between ideas and their right objects is a relation of efficient causation. It only adds that this relation of efficient causation was *instituted* by God.

⁵⁵ See Chappell (1986), p. 193.

⁵⁶ For a detailed defense of this account of the representationality of Cartesian sensations see De Rosa (2004b). I am very well aware that one may object: “it seems as though the object is indeed *fixed* by the causal connection. We just don’t *know* what it is yet. And this view is compatible with a causal theory of content.” This remark points to the necessity of explaining further the relation between a causal and descriptive elements in Descartes’ account of sensory representation. However, this is not the place to engage in a full discussion of this rather intricate issue. Suffice it to say here that the very fact that Descartes defines ideas of sensation as obscure and confused and hence as mis(re)presenting their true objects is evidence that he did not have a

by attending to the clear and distinct ideas of the intellect.⁵⁷ And once the presentational content of experience has been reinterpreted according to the “categories” of the intellect, we can see that the object that the ideas has been representing all along is whatever satisfies the clear and distinct presentation of the object as a configuration of particles having primary qualities.

In order to clarify my view, let me discuss three different features of my proposed account. First, it should be noticed that although I agree with the proponent of CA that some sort of causal connection explains why, according to Descartes, sensations represent actually existing objects I deny that Descartes’ acknowledgement of a causal connection between sensations and their objects amounts to a causal theory of sensory content along the lines of (CD)CA above. Descartes carefully distinguishes the story of how ideas are acquired from the account of how their referential content is determined (although Descartes never uses this terminology). He never tires of repeating that although sensations represent actually existing objects in virtue of how we acquire these sensations, the causal connection between sensations and their objects is not sufficient to determine what sensations really represent. The intellect alone can reveal to the mind what sensations are truly about. So, whatever understanding Descartes had of the causal connection between sensations and their objects it wasn’t the same as that implied by current causal theories of content.⁵⁸

Second, my account of the representationality of Cartesian sensations explains the teleological jargon of Meditation Six along the lines suggested in Sect. “A (WR) of the teleological jargon of Meditation Six” above (at least to the extent that it implies that the information carried by sensation is obtained through a causal connection with the environment independently of the biological function). In my view, sensations neither reveal to us the nature of corporeal reality nor are they “epistemically useless chips [. . .] in the junkyard of the mind.” (Simmons, 1999, p. 363) Even if they are incapable of telling us what corporeal reality is really like, they still serve the epistemically basic role of acquainting us with existing objects in the surrounding environment. Why being unable to discern the true nature of corporeal reality would precipitate sensations in the junkyard of epistemically useless objects? On the contrary, Descartes is saying in Meditation Six that the minimal epistemic information provided by the senses is *used* by the mind–body union to navigate the environment successfully. By acknowledging the biological function of the senses in Meditation Six, Descartes isn’t “softening the blow of his earlier attack on the senses by awarding them some sort of consolation prize.” (Simmons, 1999, p. 355) Rather, he is saying that the senses have this biological function *in virtue of* the information about the world that they carry. The biological function of the senses results from the minimal epistemic information carried by the senses rather than being a consolation prize for the *lack* of epistemically relevant information carried by them.

Third, on my account the disjunction problem would simply not arise for Descartes. According to a crude causal theory of content, what the concept represents extramentally is determined by what actually causes it. But since there can be many intermediate causes that produce this concept, why should the concept refer to the usual distal cause rather than the many intermediate causes? This is what, in Sect. “Simmons’ teleological account (TA)”,

Footnote 56 continued
causal account of reference (at least not along the lines of (CD)CA above). And that’s all I am interested in establishing in this paper.

⁵⁷ See, for example, CSM I 44; AT X 418; CSM I 46; AT X 422; CSM I 208; AT VIII A 22; CSM II 297; AT VII 440.

⁵⁸ Accordingly, my account goes along with (NCD)CA rather than (CD)CA above. See Sect. “A causal account of Cartesian sensations (CA)”.

was introduced as (a version of) the disjunction problem. Simmons' view is that TA solves this problem because the biological function of sensations provides a "reason to affirm what phenomenologically seems to be the case, e.g., that color sensations represent to us the surfaces of distal bodies." (Simmons, 1999, p. 361) However, as we saw above, Simmons' solution raises a host of difficulties. One of them is precisely that it does not seem to solve the disjunction problem because it does not manage to isolate the distal cause as the cause of a certain sensation. (See Sect. "Does TA solve problems (i)–(iii) better than CA?" above) But, in my view, the scenario raised by the disjunction problem would not even be possible for Descartes. Due to his non-deceptive nature, God has established laws according to which mental tokenings of F are caused (by and large) by Fs. Accordingly, the very fact that the sensation is presented to the mind *as* the sensation of pain in the foot guarantees that an injury in the foot is the cause of the sensation (rather than any other of the intermediate causes). This solution may be unsatisfactory to a contemporary philosopher of mind but I believe this is the solution Descartes would have offered had he been presented with the problem at hand.⁵⁹

It should also be clear that my account shares various similarities with (CA). First, on my account also, sensations turn out to be materially false ideas since they represent their objects as other than they actually are. Second, on my view, the intellect and the senses play two distinct roles within the same cognitive task (*viz.*, that of discerning the true nature of corporeal reality) rather than having two distinct tasks altogether (respectively, that of securing the survival of the body and that of discerning the nature of corporeal reality). Although knowledge of the true essence of material things "belongs to the mind alone [*i.e.*, the intellect] and not to the combination of mind and body [to which sensations belong]" (CSM II 57; AT VII 82–83), the senses provide us with information that is the starting point of a scientific inquiry that culminates with clear and distinct perception. That is why Descartes insists that they contain *some* truth. Third, on my view, the intellect and the senses represent the same objects rather than two different objects. Both the intellect and the senses represent modes of *res extensa*, the former clearly and distinctly, the latter confusedly and obscurely. Even when Descartes writes that the information about existing objects is used by the mind–body union to seek out what's beneficial and avoid what's harmful, he is always adamant to stress that "the bodies which are the sources of [. . .] various sensory perceptions possess differences corresponding to them [*i.e.*, sensory perceptions] though perhaps not resembling them." (CSM II 56; AT VII 81).

Finally, my reading of Cartesian sensations solves problems (i)–(iii) equally well as follows:

- (i)** Sensations are neither redundant nor flawed because they have their own role to play within the cognitive task that they share with the intellect. As long as they inform us of different objects existing around us and this information allows us to move around in the environment successfully, sensations are neither redundant nor intrinsically flawed;
- (ii)** Sensations are materially false ideas because they represent their objects as other than they are. But as long as sensations do represent existing objects and allow us to distinguish them from one another, they contain "some" truth and therefore allow us to move around in the environment quite successfully.
- (iii)** Because of (ii)** and because any falsity contained in sensory content can be corrected by the intellect, God is acquitted from the accusation of being a deceiver.

⁵⁹ No doubt this solution has problems of its own. For example, it assumes that Descartes has managed to non-circularly prove that God is not a deceiver—an assumption that is far from being unproblematic. However, it does have the advantage of avoiding the disjunction problem altogether.

Let me add a few words about (iii)**. It could be objected that “there nonetheless remains something suspect about a non-deceiving God giving us [a] batch of sensations [. . .] only to have to give us another faculty to check the mistakes that arise from them.” (Simmons, 1999, p. 352) However, it seems to me that a God who (a) gives us sensations that contain some truth; and (b) gives us an intellectual faculty that *collaborates* with the senses in the joint cognitive effort to discern the nature of corporeal reality can hardly be suspected of being a deceiver.

Conclusion

In light of the high costs entailed by TA; and in light of the fact that a (WR) of the teleological jargon of Meditation Six solves problems (i)–(iii) equally well, I conclude that CA (or some version of it) is superior to Simmons’ TA. As we have seen, my account of Cartesian sensations is a version of CA and solves problems (i)–(iii) without denying Descartes’ claim that sensations are materially false ideas and without forcing the teleological jargon of Meditation Six into a dubious teleological account of sensory representation.⁶⁰

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